

MORENO VALLEY TRADE CENTER

TRAFFIC IMPACT ANALYSIS

WAREHOUSE SCENARIO

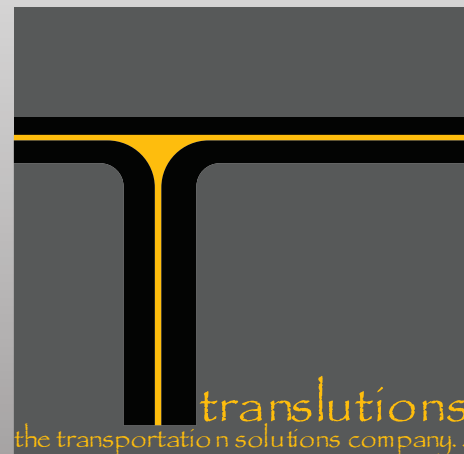
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1.0 INTRODUCTION

This report presents the methodology, findings and conclusions of the traffic impact analysis (TIA) prepared for the proposed Moreno Valley Trade Center development project. The proposed project site is located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue, in the City of Moreno Valley (City). The project proposes the construction of approximately 1,332,380 square feet of warehouse building.

1.1 Purpose of the Traffic Study and Study Objectives

This report is intended to satisfy the requirements for a TIA established by the City of Moreno Valley Transportation Engineering Divisions *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* (June, 2020), as well as the requirements for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA). The study area, analysis scenarios, and analysis methodologies are based on discussion with City staff and included in the approved Scoping Agreement. Appendix A includes the approved Scoping Agreement.

1.2 Project Location & Study Area

The project is located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue in the City of Moreno Valley. The project proposes 1,332,380 square feet of warehouse uses. Figure 1 shows the regional location of the project. The project opening year is 2024.

Consistent with City Guidelines, this report analyzes intersections of "Collector" or higher classification, at which the project will add 50 or more peak hour trips. The following 15 intersections and 15 roadway segments were evaluated for traffic operations:

Study Intersections

1. Moreno Beach Dr and SR-60 Westbound Ramps (Caltrans);
2. Moreno Beach Dr and SR-60 Eastbound Ramps Caltrans);
3. Moreno Beach Dr and Eucalyptus Avenue (Moreno Valley);
4. Auto Mall Dr and Eucalyptus Avenue (Moreno Valley);
5. Driveway 1 and Eucalyptus Avenue (Moreno Valley);
6. Driveway 2-Essen Lane and Encilia Avenue (Moreno Valley);
7. Driveway 3 and Encilia Avenue (Moreno Valley);
8. Driveway 4-Shubert Street and Encilia Avenue (Moreno Valley);
9. Driveway 5 and Eucalyptus Avenue (Moreno Valley);
10. Redlands Boulevard and SR-60 Westbound Ramps (Caltrans);
11. Redlands Boulevard and SR-60 Eastbound Ramps (Caltrans);
12. Redlands Boulevard and Eucalyptus Avenue (Moreno Valley);
13. Redlands Boulevard and Driveway 6 (Moreno Valley);
14. Redlands Boulevard and Driveway 7 (Moreno Valley); and
15. Redlands Boulevard and Encilia Avenue (Moreno Valley).

Study Roadway Segments

1. Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps (Caltrans);
2. Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue (Moreno Valley);
3. Redlands Boulevard from Eucalyptus Avenue to Driveway 6 (Moreno Valley);
4. Redlands Boulevard from Driveway 6 to Driveway 7 (Moreno Valley);

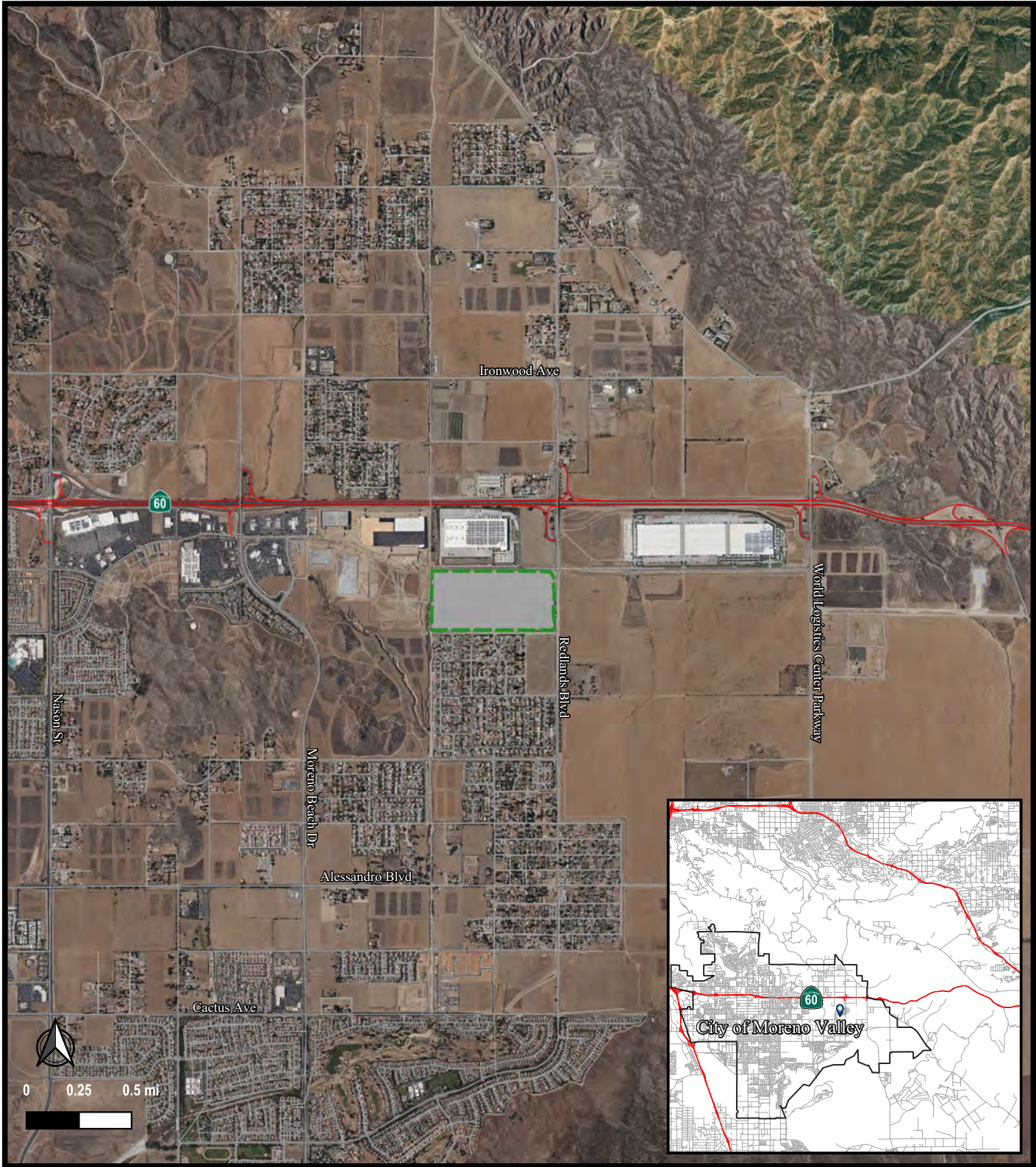


FIGURE 1

Legend

 Project Location

Moreno Valley Trade Center
Regional Project Location



5. Redlands Boulevard from Driveway 7 to Encilia Avenue (Moreno Valley);
6. Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps (Caltrans);
7. Moreno Beach Drive from SR-60 Eastbound Ramps to Eucalyptus Avenue (Moreno Valley);
8. Eucalyptus Avenue from Moreno Beach Drive to Auto Mall Drive (Moreno Valley);
9. Eucalyptus Avenue from Auto Mall Drive to Driveway 1 (Moreno Valley);
10. Eucalyptus Avenue from Driveway 1 to Aldi Place (Moreno Valley);
11. Eucalyptus Avenue Aldi Place to Driveway 5 (Moreno Valley);
12. Eucalyptus Avenue from Driveway 5 to Redlands Boulevard (Moreno Valley);
13. Encilia Avenue from Essen Lane to Mozart Way (Moreno Valley);
14. Encilia Avenue from Mozart Way to Shubert Street (Moreno Valley); and
15. Encilia Avenue Shubert Street to Redlands Boulevard (Moreno Valley).

The study area intersections are shown in Figure 2. The study area roadway segments are shown in Figure 3.

This report analyzes 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 a.m. and 9:00 a.m. The p.m. peak hour is defined as the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m. Roadway segments were analyzed during a 24-hour period using daily volume counts.

1.3 Analysis Scenarios

Based on the City of Moreno Valley Guidelines, this report analyzes traffic conditions for the following scenarios:

1. Existing Without Project Conditions;
2. Existing With Project Conditions;
3. Opening Year (2024) Without Project Conditions;
4. Opening Year (2024) With Project Conditions;
5. General Plan Build-Out (2040) Without Project Conditions; and
6. General Plan Build-Out (2040) With Project Conditions.

Consistent with the CMP, this report analyzes 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 a.m. and 9:00 a.m. The p.m. peak hour is defined as the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m. Roadway segments were analyzed during a 24-hour period using daily volume counts.

2.0 PROJECT DESCRIPTION

The project proposes the construction of approximately 1,332,380 square feet of warehousing on an approximately 71.65-acre site. Access to the project will be provided by seven driveways, including two driveways on Eucalyptus Avenue, two driveways on Redlands Boulevard, and three driveways on Encilia Avenue. Truck access to and from the project site will be restricted to three project driveways. These driveways include the two driveways on Eucalyptus Avenue, and the southern driveway on Redlands Boulevard. The western driveway will include inbound/outbound access for autos/trucks and the eastern driveway will be restricted to outbound truck traffic only. The southern driveway on Redlands Boulevard will allow inbound truck traffic, but will restrict outbound truck traffic via on-site features such as a pork-chop designed driveway, signage posted at the driveway exit prohibiting outbound truck traffic, or other measures based on discussion with City staff. The two driveways on Redlands Boulevard will be restricted to right-in/right-out access only for autos and the three driveways on Encilia Avenue will be full-access for autos. The site plan for the proposed project is illustrated in Figure 4. It should be noted that with the completion of the project, new trails



FIGURE 2

Legend

Study Area Intersections  Project Location 

Moreno Valley Trade Center
Study Area Intersections





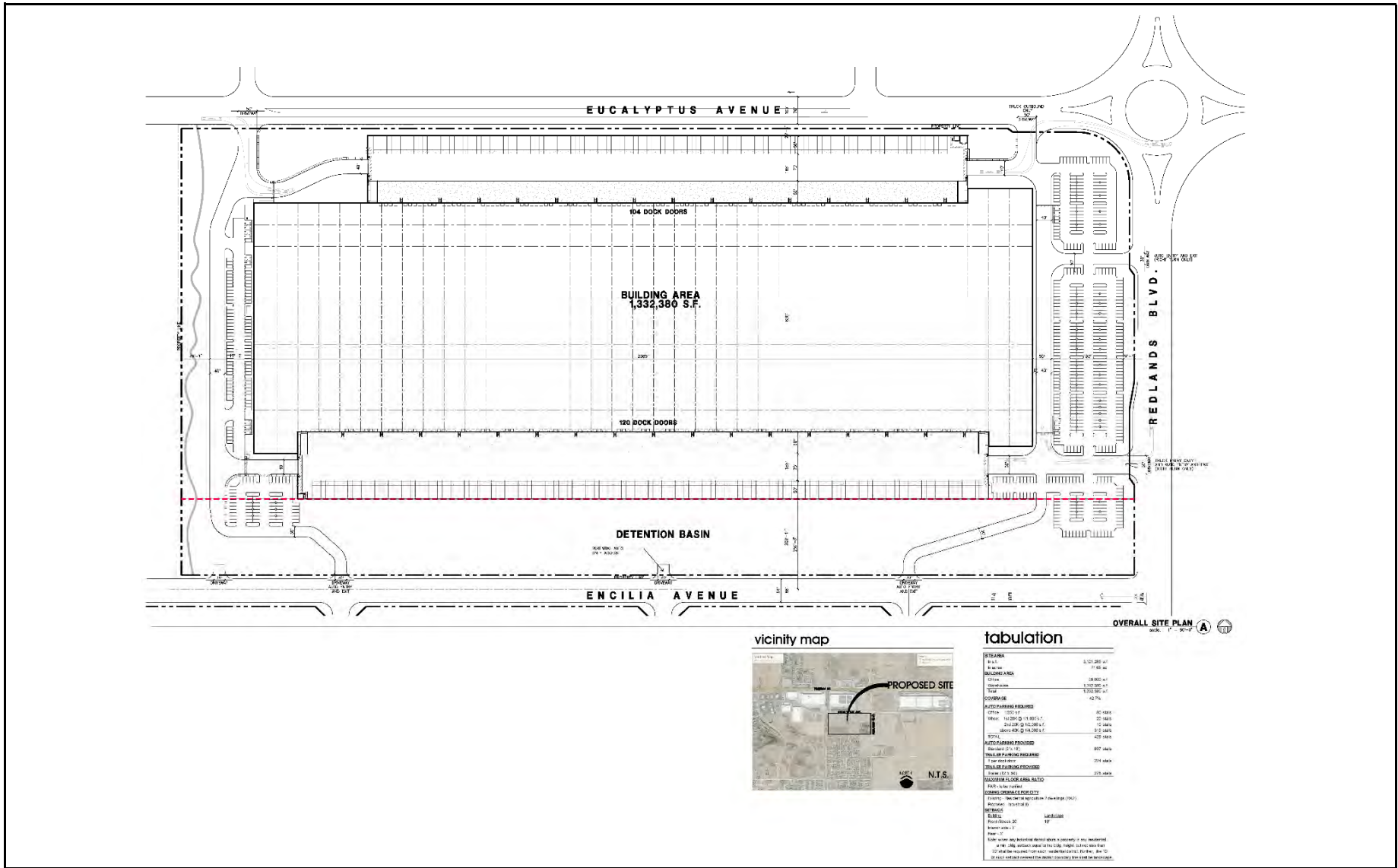
FIGURE 3

Legend

Study Area Intersections  Project Location 

Moreno Valley Trade Center
Study Area Roadway Segments





Source: HPA Architecture (September 16, 2019)

FIGURE 4

Moreno Valley Trade Center
Site Plan



on the west side of the project will be constructed within the project property line and will extend to the north from Encilia Avenue to the Eucalyptus Avenue. In addition, the project will construct frontage improvements on Redlands Boulevard, Eucalyptus Avenue, and Encilia Avenue and install a traffic signal at Redlands Boulevard and Encilia Avenue. It is anticipated that since these improvements are included in the City's DIF program, the project will be eligible for a DIF credit for these improvements. Also, a roundabout is anticipated to be completed by opening year (2024) and will either be conditioned by the Sketchers expansion project or built by the City. If the roundabout is not completed by opening year, a median along Eucalyptus Avenue adjacent to the eastern driveway will be completed by the project.

2.1 Project Trip Generation

Trip generation for the project is based on trip generation rates from the Institute of Transportation Engineers' (ITE) *Trip Generation* (10th Edition) and are based on Land Use 150 - "Warehousing". Further, City guidelines require that truck intensive uses evaluate truck traffic utilizing Passenger Car Equivalents (PCEs). The PCEs were determined based upon vehicle mix percentages provided by the South Coast Air Quality Management District Warehouse *Truck Trip Generation Study* and the PCE factors published in the *San Bernardino County CMP, 2016 Update* – Appendix B. Truck trips were converted to Passenger Car Equivalents using the conversion rates of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks and 3.0 for 4+ axle trucks. Table A shows the trip generation for the project. As shown in Table A, the project is anticipated to generate 363 PCE trips during the a.m. peak hour, 404 PCE trips during the p.m. peak hour, and 3,665 daily PCE trips.

2.2 Project Trip Distribution & Assignment

The project trip distribution patterns were developed separately for autos and trucks based on data from a select zone model run and in consultation with City staff through the scoping agreement process in Appendix A. The project trip generation was applied to the trip distribution patterns for the proposed project to develop trip assignments for new project trips. Figure 5 shows the trip distribution for project auto trips, and Figure 6 shows the trip distribution for truck trips. Figure 7 shows the trip assignment for auto trips and Figure 8 shows the assignment of truck trips in Passenger Car Equivalents (PCEs). Figure 9 shows the total project trip assignment (in PCEs) at the study intersections.

3.0 LOS DEFINITIONS, PROCEDURES, AND THRESHOLDS

Level of service (LOS) is a measure of the quality of operational conditions within a traffic stream, and is generally expressed in terms of such measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Levels range from A to F, with LOS A representing excellent (free-flow) conditions and LOS F representing extreme congestion. Consistent with City guidelines, the Highway Capacity Manual (HCM) procedures have been used to evaluate levels of service. This section discusses the LOS definitions, procedures, and thresholds used in this report.

3.1 Intersection Levels of Service

The analysis of traffic operations at intersections was conducted according to the Highway Capacity Manual 6th Edition (HCM) delay methodologies using Synchro 10 software, which is described in the Highway Capacity Manual (Transportation Research Board, Washington, D.C., November 2016). Under the HCM methodology, LOS for signalized intersections is based on the average delay experienced by vehicles traveling through an intersection, whereas for un-signalized intersections, the LOS is based on the worst approach where the minor leg has a shared lane and on the worst movement where the minor leg has dedicated turn lanes. Table B presents a brief description of each level of service letter grade, as well as the range of delays associated with each grade.

Table A: Project Trip Generation

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates ¹	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
PCE Inbound/Outbound Splits		77%	23%	100%	27%	73%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%) ²		61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor ³		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.477	0.024	0.105	0.032	0.086	0.118	1.077
2-Axle Trucks								
Recommended Mix (%) ²		6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor ³		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.013	0.004	0.016	0.005	0.013	0.018	0.168
3-Axle Trucks								
Recommended Mix (%) ²		8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor ³		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.023	0.007	0.029	0.009	0.024	0.033	0.301
4-Axle Trucks								
Recommended Mix (%) ²		22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor ³		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.090	0.027	0.117	0.035	0.096	0.131	1.200
Warehouse Net PCE Rate		0.602	0.062	0.268	0.081	0.219	0.300	2.747
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	1,332.38 TSF							
Passenger Cars		109	32	141	43	114	157	1,436
2-Axle Trucks		12	3	15	5	12	17	150
3-Axle Trucks		15	5	20	6	16	22	201
4+ Axle Trucks		41	12	53	17	42	59	534
All Trucks		68	20	88	28	70	98	885
Total Vehicles		245	52	229	71	184	255	2,321
Total Project Trip Generation (Passenger Car Equivalent Trips, By Vehicle Type)								
Passenger Cars		109	32	141	43	114	157	1,436
Truck PCE								
2-Axle Trucks		18	5	23	8	18	26	225
3-Axle Trucks		30	10	40	12	32	44	402
4+ Axle Trucks		123	36	159	51	126	177	1,602
Total Truck PCE		171	51	222	71	176	247	2,229
Total PCE		280	83	363	114	290	404	3,665

¹ Rates based on Land Use 150 "Warehousing" from Institute of Transportation Engineers (ITE) Trip Generation (10th Ed.).

² Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study.

³ Recommended PCE Factor per SBCTA Guidelines

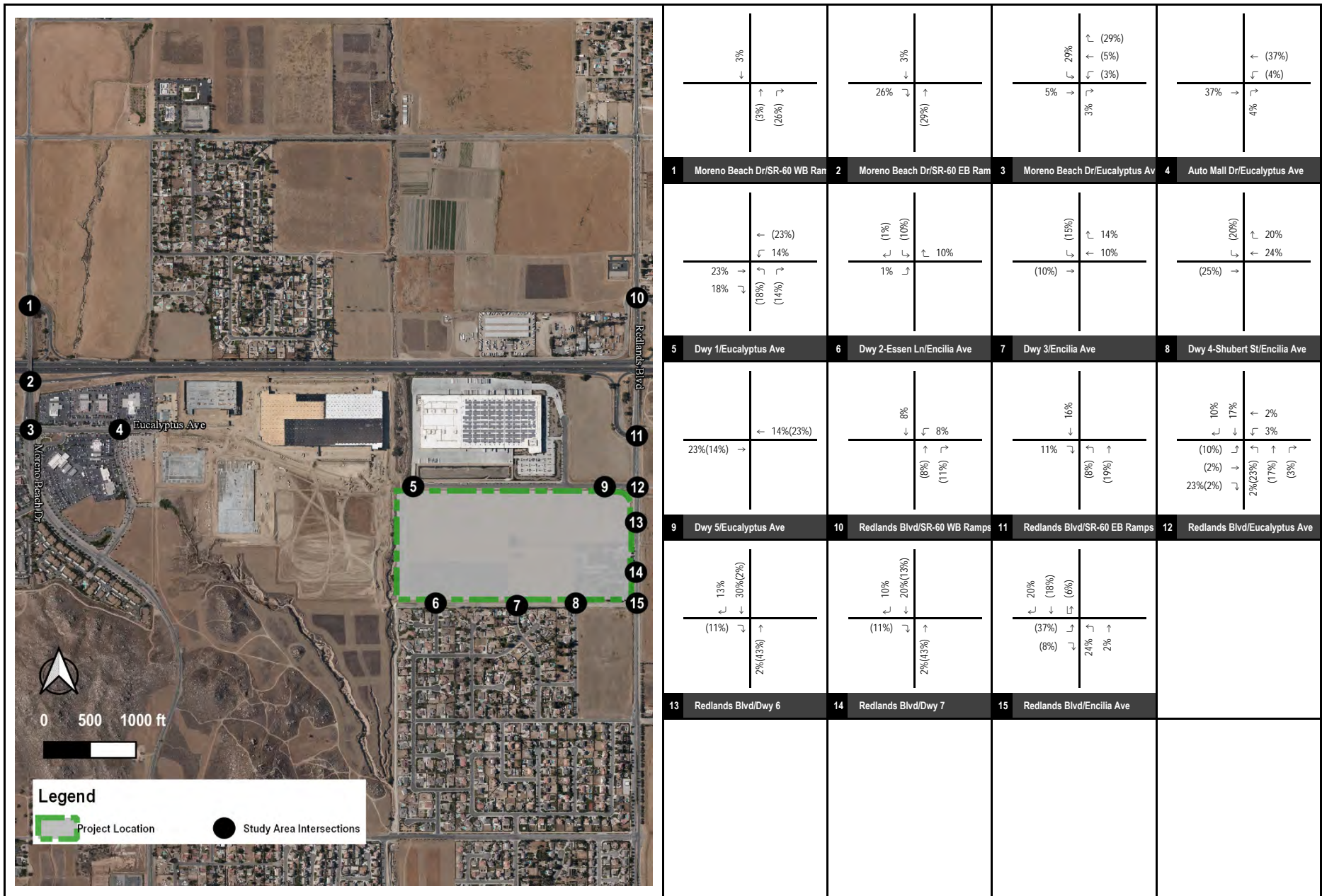


FIGURE 5

XX%(YY%) Inbound%(Outbound%) Distribution



Moreno Valley Trade Center
Project Trip Distribution (Autos)

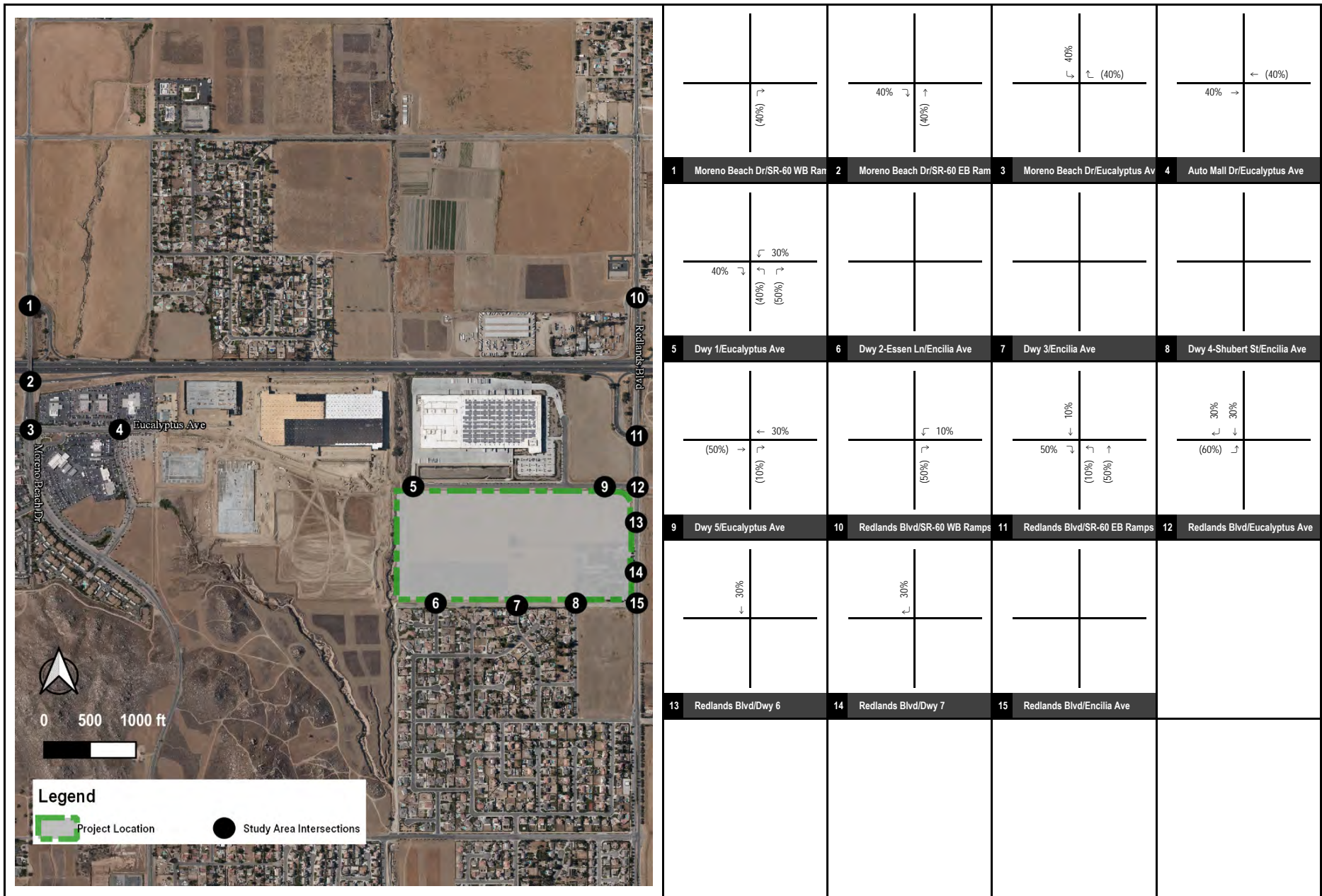


FIGURE 6

Moreno Valley Trade Center
Project Trip Distribution (Trucks)

XX%(YY%) Inbound%(Outbound%) Distribution



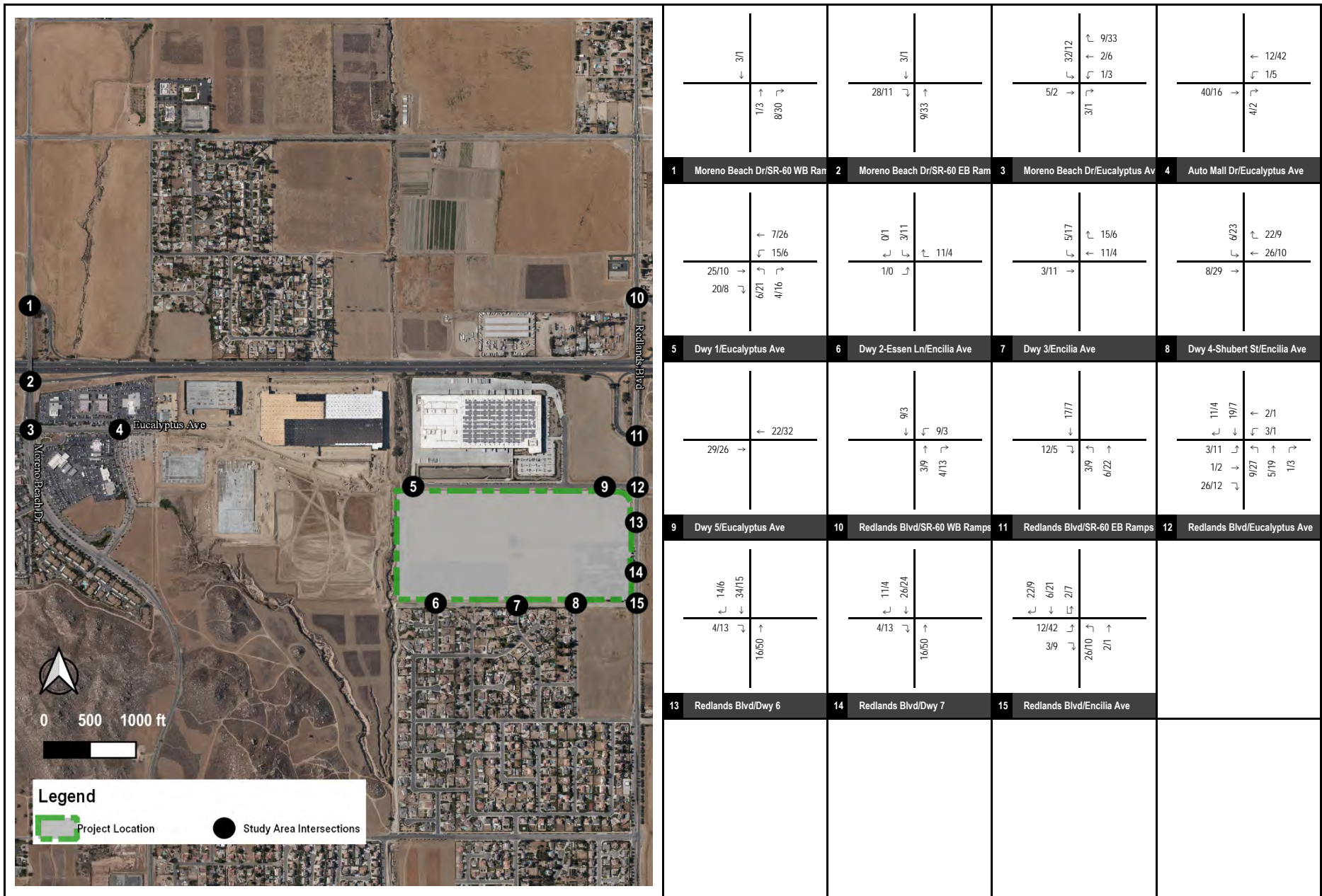


FIGURE 7

xxx/yyy AM/PM Peak Hour Trips



Moreno Valley Trade Center
Project Trip Assignment (Autos)

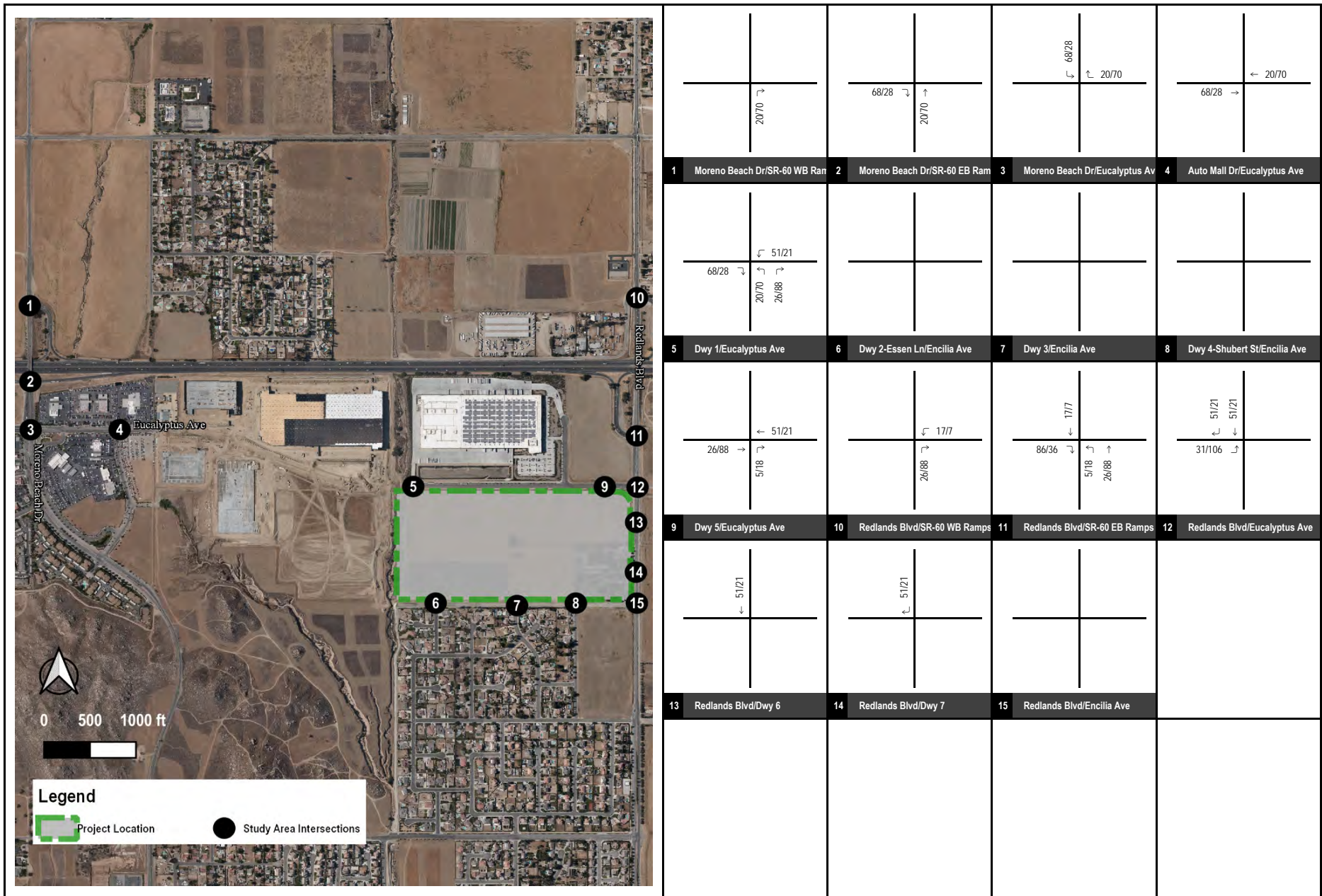


FIGURE 8

XXX/YYY AM/PM Peak Hour Trips



Moreno Valley Trade Center
Project Trip Assignment (Trucks)

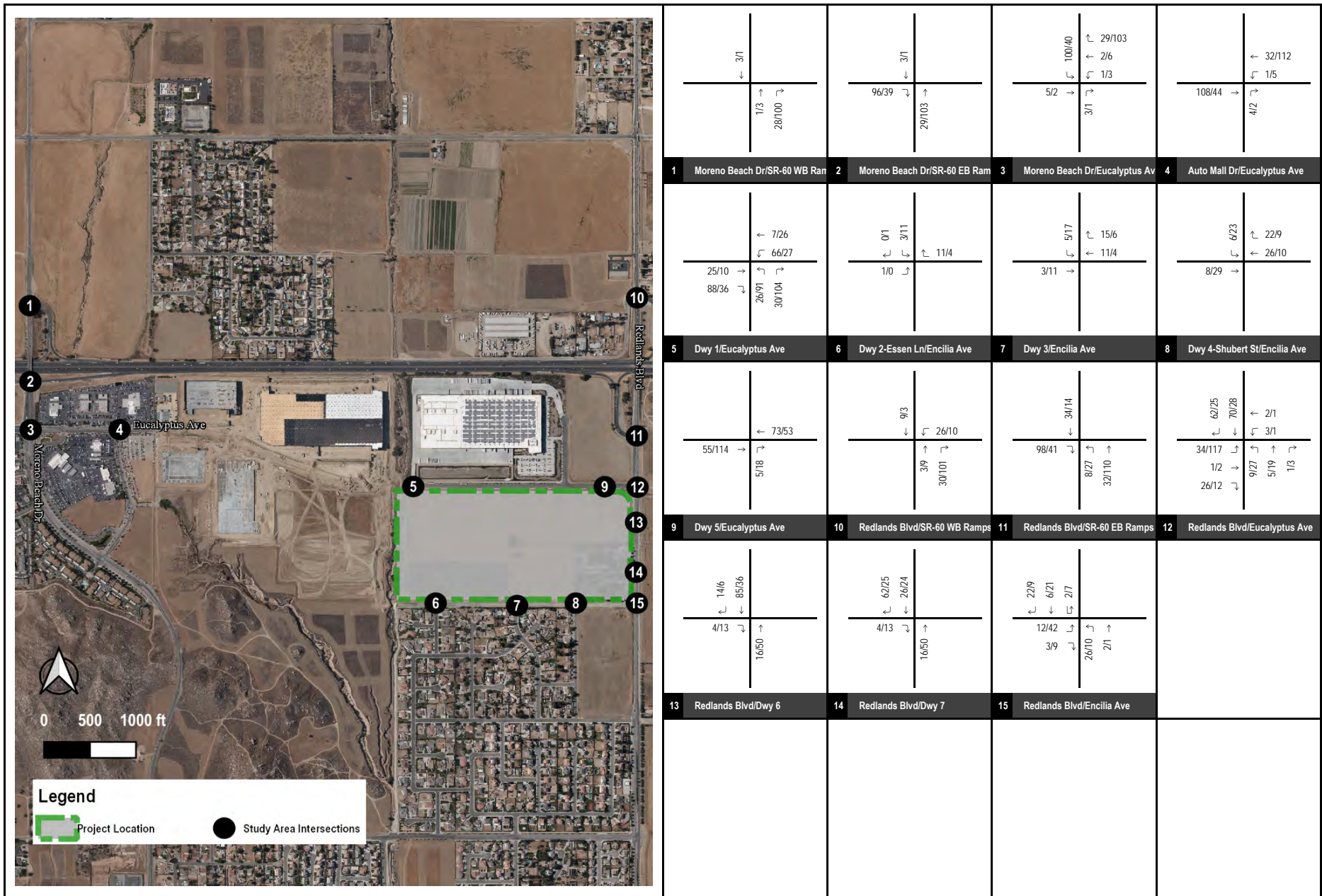


FIGURE 9

XXX/YYY AM/PM Peak Hour Trips



Moreno Valley Trade Center
Total Project Trip Assignment

Table B: Intersection Level of Service Criteria

LOS	Description of Drivers' Perception and Traffic Operation	Intersection Delay in Seconds	
		Unsignalized	Signalized
A	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 it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10	≤ 10
B	This level is 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.	> 10 and ≤ 15	> 10 and ≤ 20
C	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 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.	> 15 and ≤ 25	> 20 and ≤ 35
D	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.	> 25 and ≤ 35	> 35 and ≤ 55
E	This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 35 and ≤ 50	> 55 and ≤ 80
F	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.	> 50	> 80

3.2 Roadway Segment Levels of Service

The analysis of daily traffic operations on roadway segments was conducted using the City's daily capacity for each functional classification from the City's TIA guidelines. Table C shows the roadway capacity for each classification and represents the daily traffic volumes travelling in both directions during a 24-hour period. The City guidelines indicate that these roadway capacities are "rule of thumb" estimates for planning purposes and do not reflect other factors such as intersections (spacing, configuration, and control features), degree of access control, roadway grades, and design geometrics (horizontal and vertical alignment standards).

3.3 Levels of Service Thresholds and Operating Requirements

Caltrans uses LOS D as the minimum level of service standard for state facilities. Intersections operating at LOS E or F require improvements. In addition, the City of Moreno Valley General Plan has established minimum Level of Service standards for its roadway network. The City's acceptable LOS standards include LOS D as both LOS C. LOS D is applicable to intersections that are adjacent to freeway on/off ramps and adjacent to employment generating land uses. LOS C is applicable to all other intersections. Figure 10 illustrates the Moreno Valley LOS standards. For boundary intersections, LOS D is assumed to be acceptable consistent with City guidelines.

The City has established operating requirements for signalized intersections, unsignalized intersections, and roadway segments. The following include the operating requirements:

Signalized Intersections

- Any signalized study intersection operating at acceptable LOS without project traffic in which the addition of project traffic causes the intersection to degrade to unacceptable LOS shall identify improvements to provide acceptable LOS.
- Any signalized 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.

Unsignalized Intersections

- The addition of project related traffic causes the intersection to degrade from an acceptable LOS to unacceptable LOS. Improvements should be identified that achieve LOS D or better.

OR

- 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 the intersection meets the peak hour traffic signal warrant after the addition of project traffic. Improvements should be identified that achieve pre-project LOS and delay.

Roadway Segments

- Any study roadway segment operating at acceptable LOS without project traffic in 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% of the roadway capacity (e.g. a volume-to-capacity ratio increase of 0.05) should identify improvements to add capacity to the segment.

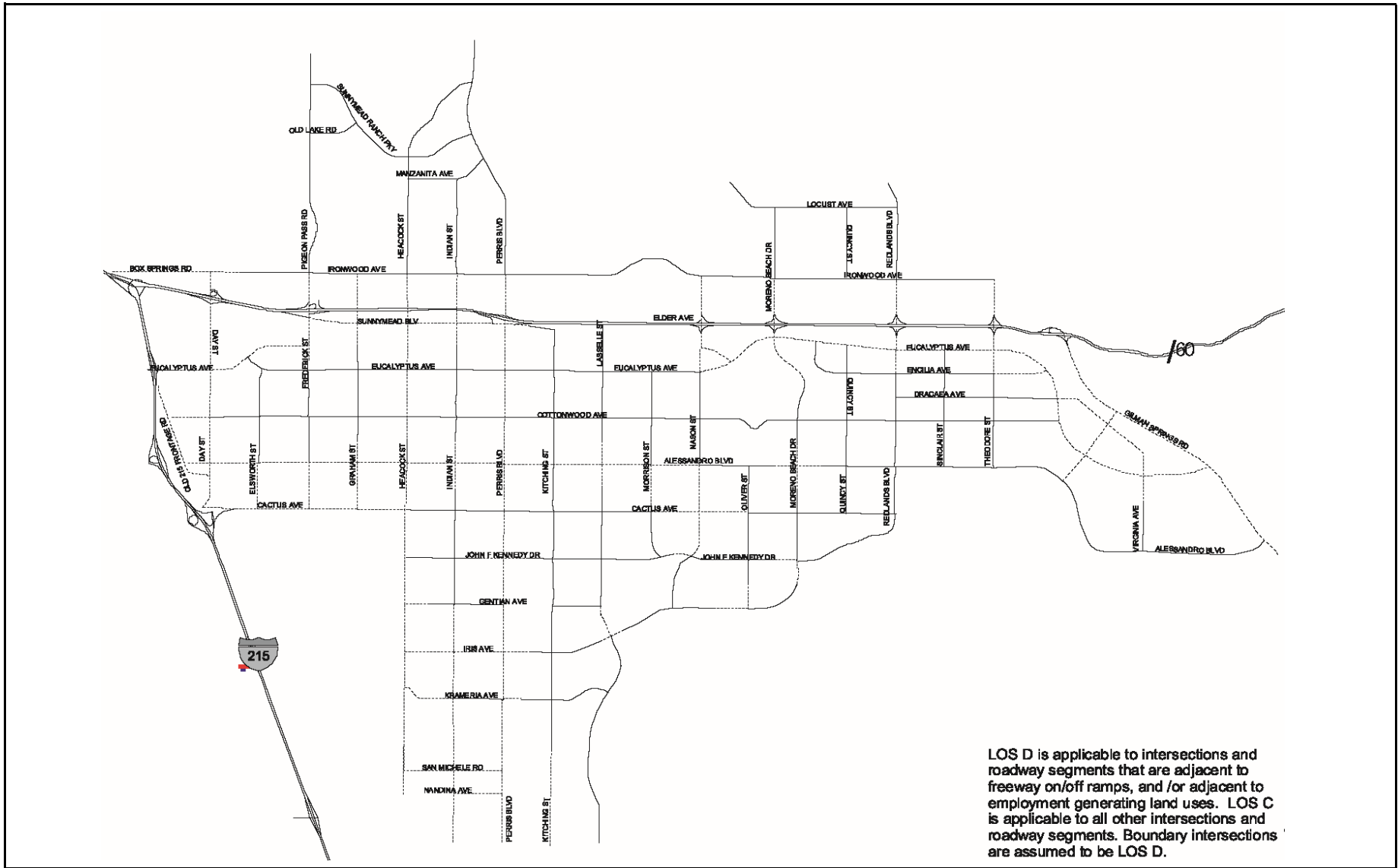
4.0 VOLUME DEVELOPMENT METHODOLOGY

Forecast traffic volumes at study intersections were developed consistent with the City's guidelines. This section discusses the volume development methodology used to forecast future traffic volumes.

Table C: City of Moreno Valley Roadway Capacities and Levels of Service

Roadway Classification	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

Source: City of Moreno Valley *Traffic Impact Analysis Preparation Guide (August, 2007)*



Source: City of Moreno Valley General Plan

FIGURE 10

Moreno Valley Trade Center
City of Moreno Valley LOS Standards



4.1 Existing Without Project Traffic Volumes

Existing without project traffic volumes and roadway segments are based on peak hour intersection turn movement counts and daily counts collected by Counts Unlimited Inc. in October 2019. Vehicle classification counts (e.g., passenger vehicle, 2-axle truck, 3-axle truck, and 4 or more axle truck), were conducted at all study area intersections and roadway segments. Consistent with City guidelines, PCE volumes at these intersections and roadway segments were computed using a PCE factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with 4 or more axles. Count sheets are contained in Appendix B. Detailed volume development worksheets are included in Appendix C.

4.2 Opening Year (2024) Without Project Traffic Volumes

Opening year (2024) without project peak hour traffic volumes were developed by applying an annual growth rate of 2 percent per year compounded for 5 years (10.41 percent) to the existing volumes and adding cumulative project trips. The cumulative projects included in the analysis are illustrated in Figure 11. Appendix C lists the cumulative projects included in the analysis. The cumulative projects are anticipated to generate 10,417 net a.m. peak hour trips, 13,437 net p.m. peak hour trips, and 151,344 net daily trips.

4.3 General Plan Build-Out (2040) Without Project Traffic Volumes

General Plan Build-Out (2040) without project traffic volumes were developed using the MVTM. The base year for the traffic model is 2012 and the forecast year is 2040. The difference between the modeled 2012 and 2040 peak period directional arterial traffic volumes (for each intersection approach and departure) was identified from loaded network model plots. This difference defines the growth in traffic over the 28-year period. This incremental growth in peak period approach and departure volumes were factored to develop the incremental change in peak hour volumes. The MVTM uses a three-hour a.m. peak period and a four-hour p.m. peak period. Southern California Association of Governments (SCAG), the regional Metropolitan Transportation Organization (MPO) has established that the a.m. peak hour comprises 38 percent of the a.m. peak period and that the p.m. peak hour comprises 28 percent of the p.m. peak period. Therefore, the incremental changes in peak period volumes were multiplied by the appropriate factor to develop incremental changes in peak hour volumes. The incremental growth in approach and departure volumes between 2012 and 2040 was factored to reflect the forecast growth between the year of the ground counts (2019) and 2040. For this purpose, linear growth between 2012 and year 2040 was assumed. Since the increment between 2019 and 2040 is 21 years of the 28-year time span, a factor of 0.75 (i.e., 21/28) was used. This forecast growth in approach and departure volumes were added to the 2019 ground counts, resulting in post-processed forecast year 2040 link volumes. General Plan Build-Out (2040) without project turn volumes were developed using existing turn volumes and the future approach and departure volumes, based on the methodologies contained in National Cooperative Highway Research Program Report (NCHRP) 255: Highway Traffic Data for Urbanized Area Project Planning and Design (Transportation Research Board, December 1982). At some locations, forecast turning movements were forecast to be less than those under opening year 2019 conditions. This can be attributed to network improvements, planned transit, or changes in land use. Therefore, these turning movements were adjusted by applying a growth factor of five percent to opening year 2019 traffic volumes to account for an increase in traffic volumes at these locations from cumulative conditions to year 2040. Detailed volume development worksheets are included in Appendix C.

4.4 With Project Traffic Volumes

Traffic volumes for existing, opening year (2024), general plan build-out (2040) with project conditions were developed by adding the trip assignment to the corresponding without project peak hour traffic volumes.

5.0 EXISTING CONDITIONS

This section discusses the existing transportation conditions in the study area.

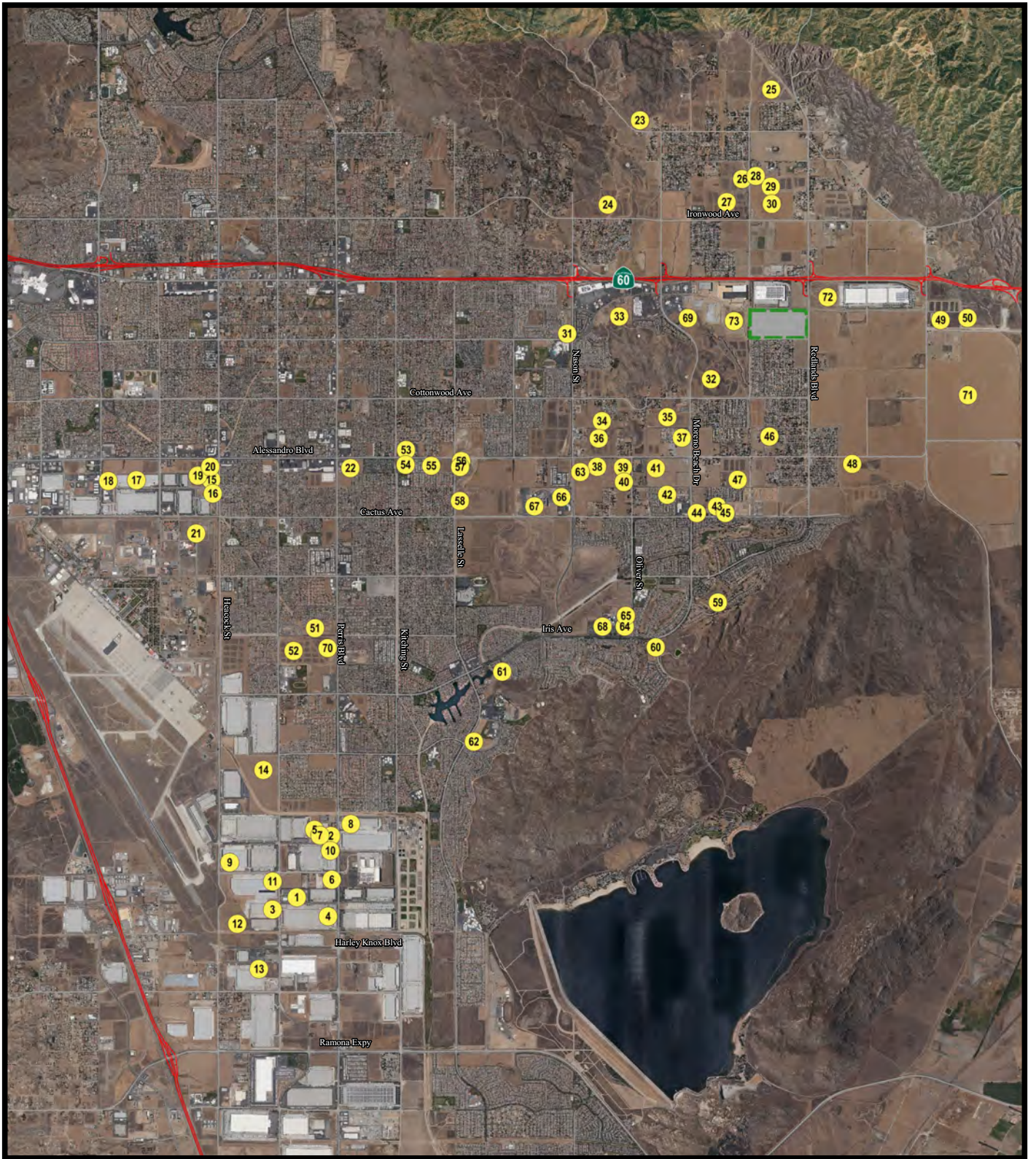


FIGURE 11

Legend

-  Project Location
-  Cumulative Projects

Moreno Valley Trade Center
Cumulative Project Locations



5.1 Existing Roadway Conditions

Regional access to the project site is provided by SR-60 to the north. Local access to the project will be provided by the following roadways:

- **Redlands Boulevard** is oriented in the north-south direction and is a 2-lane roadway within the project study area. The City's circulation plan designates Redlands Boulevard as a "Divided Major Arterial" from Cactus Avenue to SR-60 with a right-of-way of 134 feet. The posted speed limit is 50 miles per hour adjacent to the project area.
- **Eucalyptus Avenue** is oriented in the east-west direction and is a 4-lane roadway from Nason Street to Moreno Beach Drive, a 2-lane roadway from Moreno Beach to Auto Mall Drive, and 4-lane roadway from Auto Mall Drive to Driveway 1, and a 3-lane roadway from Driveway 1 to Redlands Boulevard. The City's circulation plan designates Eucalyptus Avenue as an "Arterial" with a right-of-way of 100 feet from Nason Street to Redlands Boulevard. The posted speed limit is 40 miles per hour adjacent to the project area.
- **Moreno Beach Drive** is oriented in the north-south direction and is a 4-lane divided roadway from SR-60 to Eucalyptus Avenue, a 2-lane undivided roadway from Alessandro Boulevard to Cactus Avenue, and a 6-lane divided roadway from Cactus Avenue to Lasselle Street. The City's circulation plan designates Moreno Beach Drive as an "Divided Major Arterial" with a right-of-way of 134 feet from Auto Mall Drive to John F Kennedy Drive. The posted speed limit is 50 miles per hour adjacent to the project area.
- **Iris Avenue** is oriented in the east-west direction and is a 6-lane divided roadway. The City's circulation plan designates Iris Avenue as an "Divided Major Arterial" with a right-of-way of 134 feet from Kitching Street to John F Kennedy Drive. The posted speed limit is 50 miles per hour adjacent to the project area.
- **Alessandro Boulevard** is oriented in the east-west direction and is a 2-lane undivided roadway. The City's circulation plan designates Alessandro Boulevard as an "Divided Major Arterial" with a right-of-way of 134 feet from east of Redlands Boulevard to west of Perris Boulevard. The posted speed limit is 45 miles per hour adjacent to the project area.

5.2 Existing Transit Service

Public transportation services within the City of Moreno Valley includes bus transit service provided by the Riverside Transit Agency (RTA) and commuter rail transportation (Metrolink). These services are further described below.

Bus Service. Public transportation in the City of Moreno Valley is provided by RTA, which is the regional transit operator in Riverside County.

- **Route 20** provides service on Alessandro Boulevard, Moreno Beach Drive, and Iris Avenue. Route 20 has major stops at the Moreno Valley/March Field Metrolink Station, Riverside University Medical Center, Kaiser Permanente Hospital, and Moreno Valley College. Route 20 operates at 45-minute headways on weekdays.
- **Route 31** provides transit service on Eucalyptus Avenue from Moreno Beach Drive to Kitching Street. Route 31 has major stops at the Stoneridge Towne Centre, Riverside University Medical Center, and the Moreno Valley Senior Center. Route 31 operates at 55-minute headways on weekdays.
- **Route 15** travels along 9th street and Central Avenue near the project area. Route 15 connects the Jerry Lewis Comm. Center, Citrus Valley High School, Citrus Plaza, and San Bernardino Transit Center. Route 15 operates at 30-40-minute headways on weekdays.

Commuter Rail Service. Commuter rail service is provided by Metrolink, which is operated by the Southern California Regional Rail Authority (SCRRA). Metrolink train service is available between the counties of Ventura, Los Angeles, San Bernardino, Orange, Riverside, and north San Diego. The area is served by the Moreno Valley/March Field Metrolink Station. The Moreno Valley/March Field Station is the nearest Metrolink station to the project site and is approximately 8 miles southwest of the project site.

Figure 12 illustrates the existing transit services. As shown in Figure 12, the closest transit route to the project is located on Eucalyptus Avenue via Route 31. Redlands Boulevard does not have any existing transit routes.

5.3 Existing Pedestrian & Bicycle Facilities

The City's Bicycle Master Plan includes three types of facilities and are discussed below:

- **Class I Multi-use Paths** Class I facilities are physically separated from motor vehicle routes, with exclusive rights-of-way for non-motorized users like cyclists and pedestrians and with motor vehicle cross flows kept to a minimum. Class I facilities are often important commuter connections and any proposed paths must be designed for multipurpose use.
- **Class II Bicycle Lanes** Class II facilities provide an exclusive roadway space for cyclists, demarcated through pavement marking and signage. Bicycle lanes must be one-way facilities and carry bicycle traffic in the same direction as the adjacent motor vehicle traffic. They are typically located along the right side of the street, between the adjacent travel lane and curb, road edge or parking lane.
- **Class III Bicycle Routes** Class III facilities are suggested bicycle routes marked by signs designating a preferred route between destinations. They are recommended where traffic volumes and roadway speeds are fairly low.

Figure 13 illustrates the existing bicycle facilities within the City. As shown in Figure 13, there are existing Class II bicycle lanes on Eucalyptus Avenue west of the project to Nason Street and no existing bicycle lanes on Redlands Boulevard.

Pedestrian circulation in Moreno Valley is primarily provided via trails and sidewalks. Figure 14 illustrates the City's Master Plan of Trails. The existing pedestrian sidewalks adjacent to the project are illustrated in Figure 15. As illustrated in Figure 15, there are sidewalks adjacent to the project on the north side of Eucalyptus Avenue and no sidewalks on Redlands Boulevard.

5.4 Existing Without Project Intersections Levels of Service

An intersection level of service analysis was conducted for existing without project conditions to determine current circulation system performance. Figure 16 shows the existing lane geometrics and stop controls at the study intersections. The existing without project traffic volumes at study intersections are illustrated in Figure 17. Detailed volume development worksheets are included in Appendix C. The existing without project levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix D. As shown in Table D, all study area intersections are currently operating at satisfactory levels of service with the exception of the following:

- Moreno Beach Drive/SR-60 Eastbound Ramps (a.m. and p.m. peak hours).

5.5 Existing Without Project Roadway Segment Levels of Service

A level of service analysis was conducted for the study area roadway segments under existing without project conditions to determine current circulation system performance. Detailed volume development worksheets are included in Appendix C. The existing without project levels of service for the study area roadway segments are summarized in Table E. As shown in Table E, all study area roadway segments are currently operating at satisfactory levels of service with the exception of the following:

- Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps;
- Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue;
- Redlands Boulevard from Eucalyptus Avenue to Driveway 6;
- Redlands Boulevard from Driveway 6 to Driveway 7;

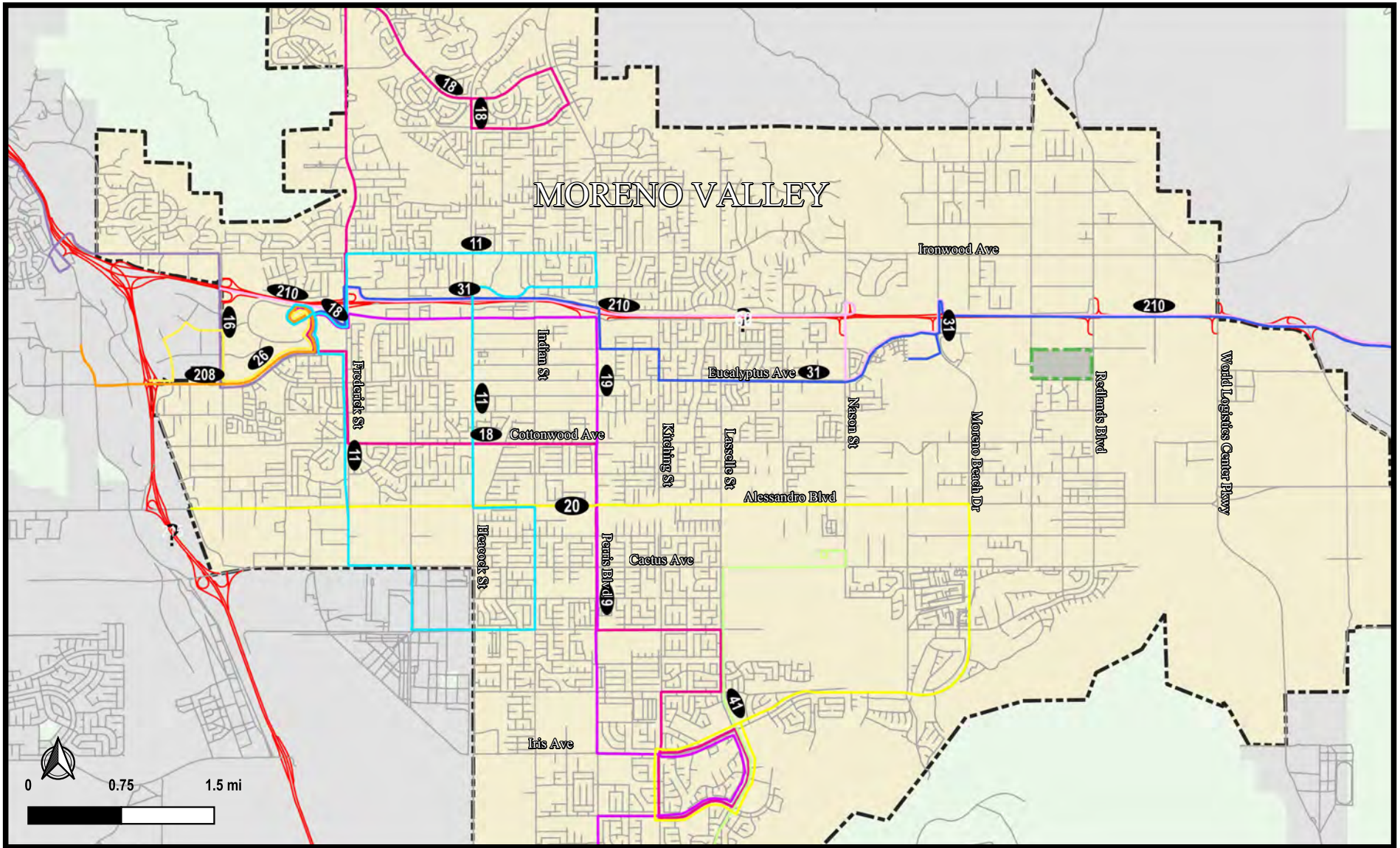


FIGURE 12

Legend

- Project Location
- Route 11
- Route 18
- Route 20
- Route 210
- Route 31
- Route 11
- City Boundary
- Route 16
- Route 19
- Route 208
- Route 26
- Route 41

**Moreno Valley Trade Center
Existing Transit**



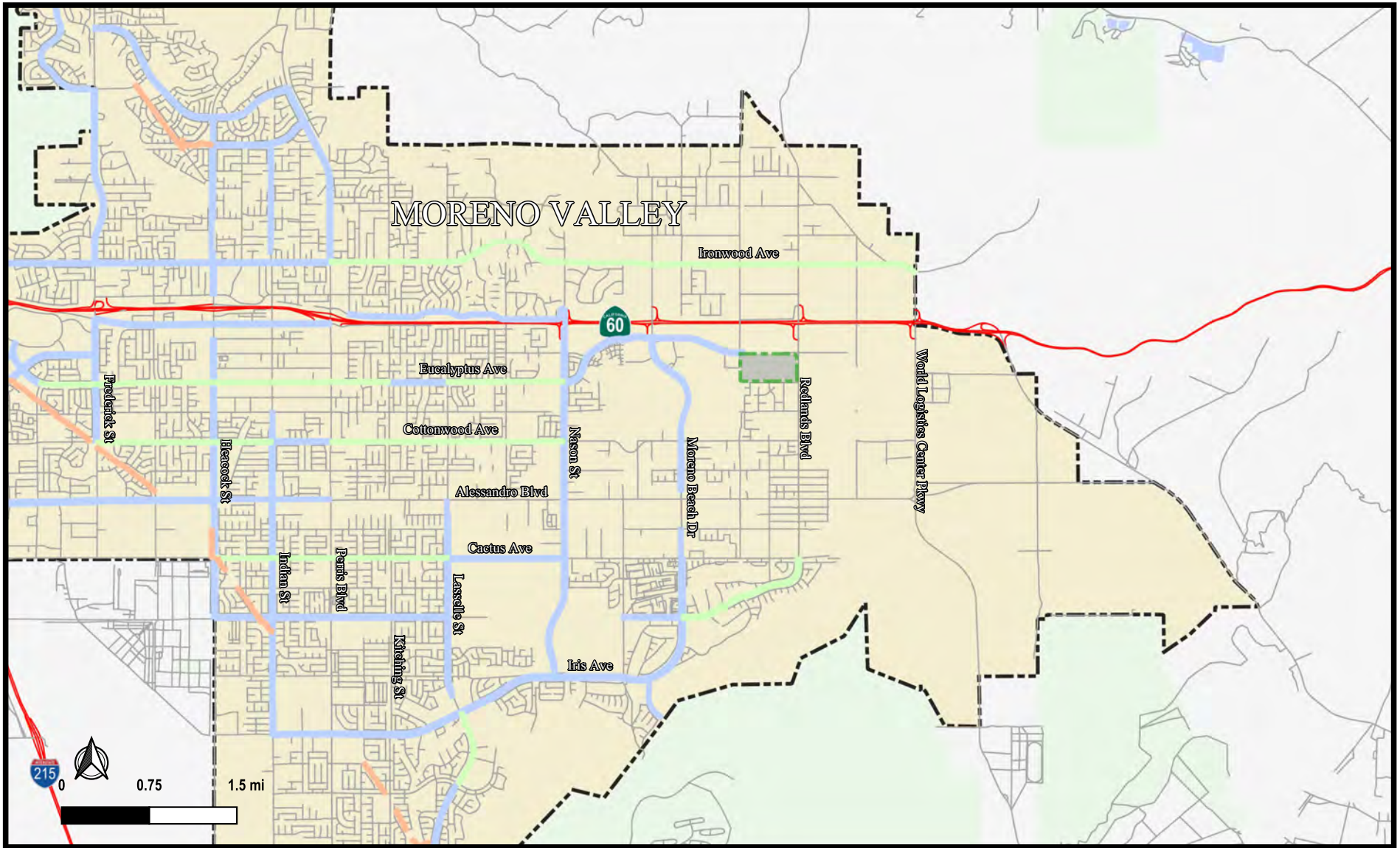
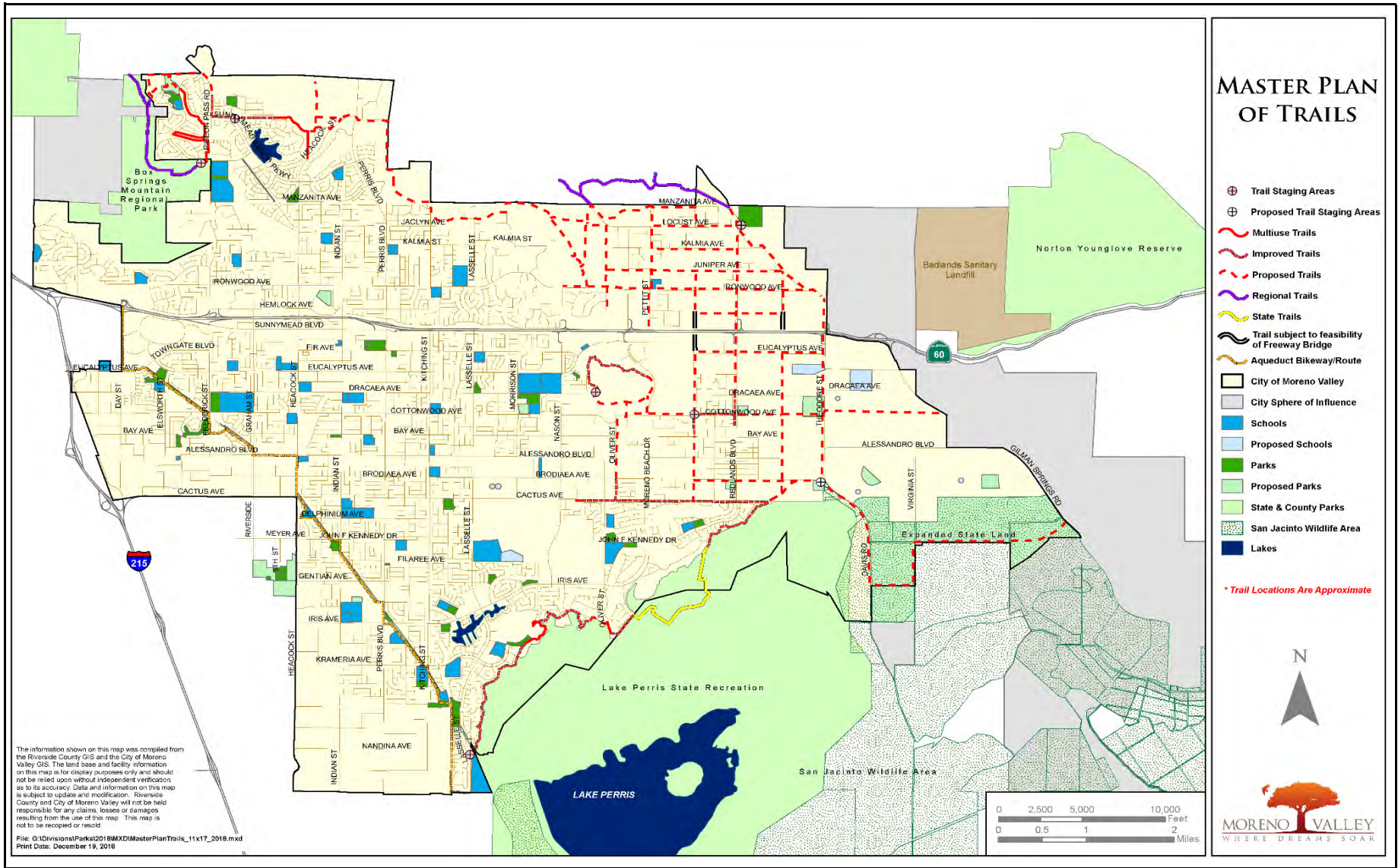


FIGURE 13

Moreno Valley Trade Center
Existing Bicycle Lanes

- Legend**
- Project Location
 - Class II: Bike Lanes
 - City Boundary
 - Class I: Multi-Use Path
 - Class II:I Bike Routes





Source: City of Moreno Valley Parks and Community Services

FIGURE 14

**Moreno Valley Trade Center
 City of Moreno Valley Master Plan of Trails**



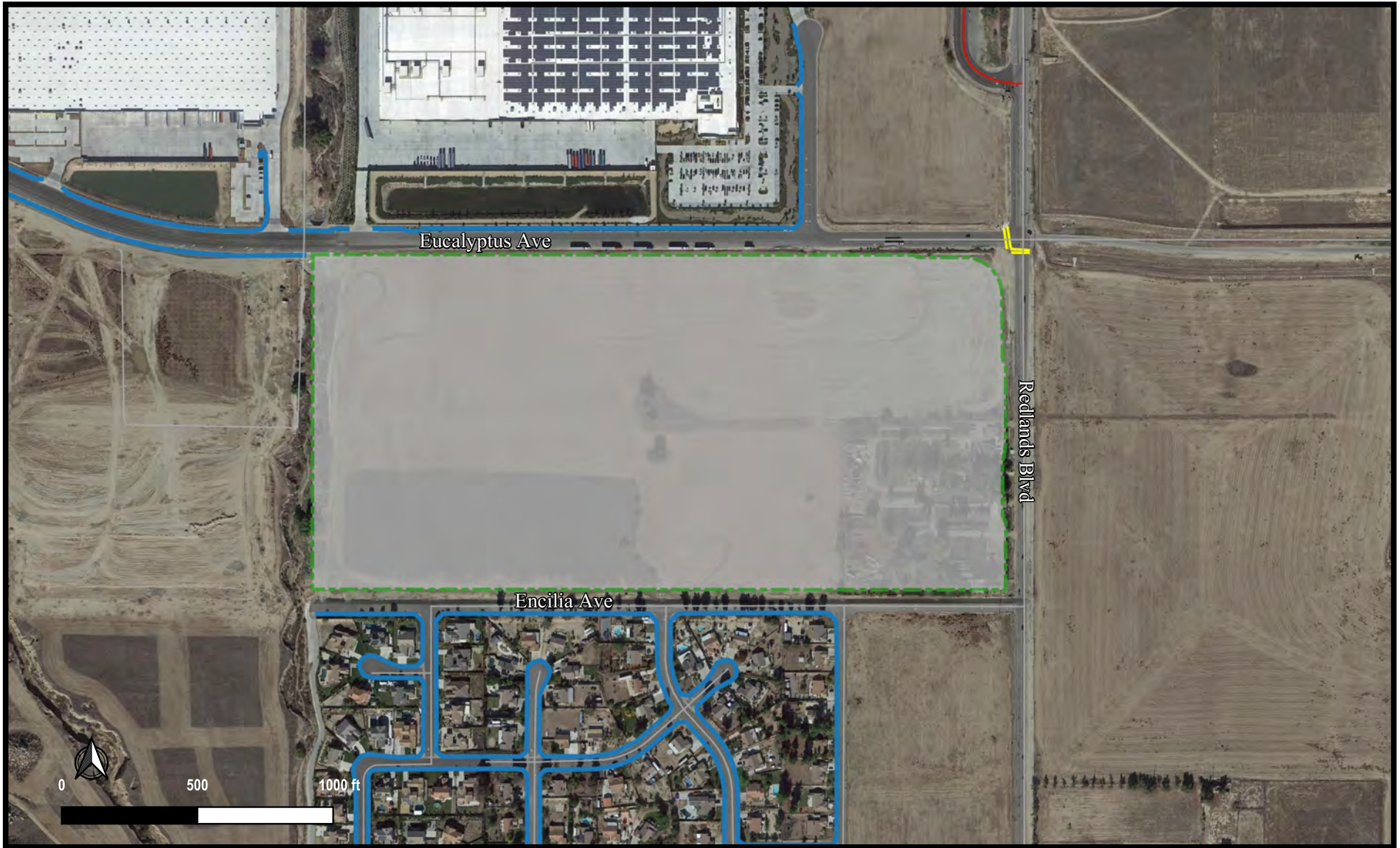


FIGURE 15

Moreno Valley Trade Center
Existing Pedestrian Facilities

Legend
 Project Location
 Sidewalks
 Crosswalk



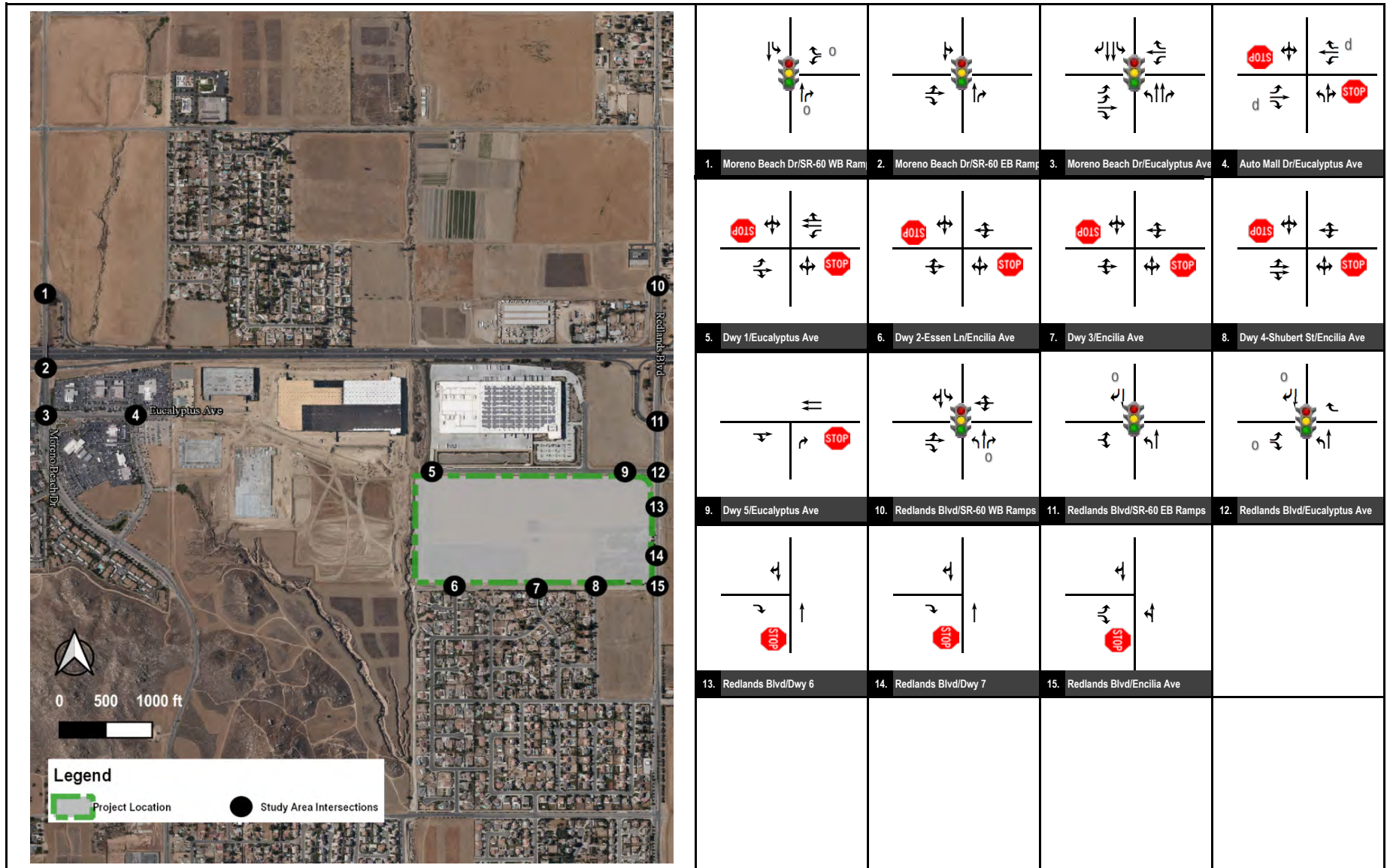


FIGURE 16

Legend

- Traffic Signal
- Stop Sign
- RT Overlap
- Defacto right turn

Moreno Valley Trade Center
Existing Intersection Geometrics and Stop Control

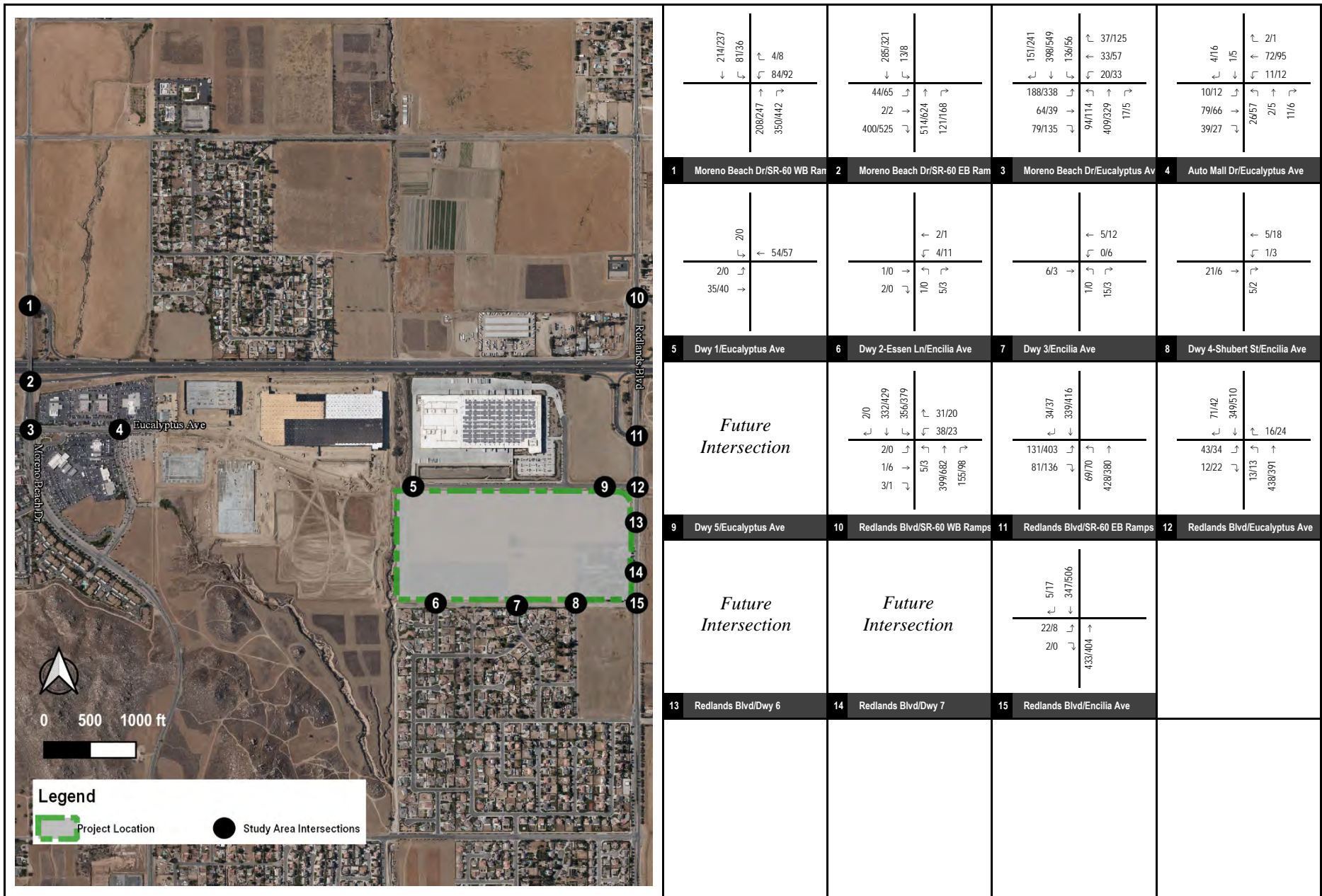


FIGURE 17

XXXX/YYYY AM/PM Peak Hour Traffic Volumes

Moreno Valley Trade Center
Existing Without Project Peak Hour Traffic Volumes



Table D: Existing Intersection Levels of Service

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		Exceed City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS			
1 . Moreno Beach Dr/SR-60 Westbound Ramps	D	Caltrans	Signal	16.5	B	15.2	B	13.5	B	19.1	B	-	-	-
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	D	Caltrans	Signal	89.1	F *	>100	F *	>100	F *	>100	F *	-	-	-
3 . Moreno Beach Dr/Eucalyptus Avenue	D	Moreno Valley	Signal	30.2	C	32.5	C	32.4	C	37.8	D	2.2	5.3	NO
4 . Auto Mall Dr/Eucalyptus Avenue	D	Moreno Valley	TWSC	10.1	B	10.9	B	11.1	B	12.6	B	1.0	1.7	NO
5 . Driveway 1/Eucalyptus Avenue	D	Moreno Valley	TWSC	9.2	A		A	10.4	B	10.4	B	1.2	10.4	NO
6 . Driveway 2-Essen Ln/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.7	A	8.8	A	0.3	0.5	NO
7 . Driveway 3/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.9	A	9.0	A	0.5	0.7	NO
8 . Driveway 4-Shubert Street/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	9.1	A	9.2	A	0.7	0.9	NO
9 . Driveway 5/Eucalyptus Avenue	D	Moreno Valley	TWSC	<i>Future Intersection</i>				8.6	A	8.9	A	8.6	8.9	NO
10 . Redlands Boulevard/SR-60 Westbound Ramps	D	Caltrans	Signal	27.5	C	39.9	D	27.6	C	40.8	D	-	-	-
11 . Redlands Boulevard/SR-60 Eastbound Ramps	D	Caltrans	Signal	20.4	C	25.0	C	25.6	C	25.2	C	-	-	-
12 . Redlands Boulevard/Eucalyptus Avenue	D	Moreno Valley	Signal	8.9	A	6.5	A	10.1	B	14.3	B	1.2	7.8	NO
13 . Redlands Boulevard/Driveway 6	D	Moreno Valley	TWSC	<i>Future Intersection</i>				9.8	A	10.3	B	9.8	10.3	NO
14 . Redlands Boulevard/Driveway 7	D	Moreno Valley	TWSC	<i>Future Intersection</i>				9.7	A	10.4	B	9.7	10.4	NO
15 . Redlands Boulevard/Encilia Avenue	D	Moreno Valley	Signal	20.5	C	18.2	C	2.5	A	0.5	A	-18.0	-17.7	NO

Notes:

LOS = Level of Service

Table E: Existing Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			Classification	Roadway Capacity	With Project			Change in V/C	Exceed City's Operational Requirement?
					Daily Volume	LOS	V/C			Daily Volume	LOS	V/C		
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	14,403	F *	1.152	2U	12,500	15,322	F *	1.226	-	-
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	12,290	E *	0.983	2U	12,500	14,015	F *	1.121	0.138	YES
3 . Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	13,515	A	0.541	-0.462	NO
4 . Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	13,501	A	0.540	-0.463	NO
5 . Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	13,174	A	0.527	-0.476	NO
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	12,724	F *	1.018	2U	12,500	13,401	F *	1.072	-	-
7 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	23,934	B	0.638	4D	37,500	25,243	B	0.673	0.035	NO
8 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	2U	12,500	3,673	A	0.294	2U	12,500	5,097	A	0.408	0.114	NO
9 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	1,617	A	0.065	4U	25,000	3,099	A	0.124	0.059	NO
10 . Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	3U	18,750	1,507	A	0.080	4U	25,000	2,930	A	0.117	0.037	NO
11 . Eucalyptus Ave Aldi Pl to Driveway 5	City of Moreno Valley	D	3U	18,750	2,424	A	0.129	4U	25,000	3,847	A	0.154	0.025	NO
12 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	3U	18,750	2,424	A	0.129	4U	25,000	3,958	A	0.158	0.029	NO
13 . Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	2UR	2,000	217	A	0.108	4U	25,000	361	A	0.014	-0.094	NO
14 . Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	2UR	2,000	217	A	0.108	4U	25,000	569	A	0.023	-0.086	NO
15 . Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	2UR	2,000	475	A	0.237	4U	25,000	1,114	A	0.045	-0.193	NO

Notes:

LOS = Level of Service, 2MA=2-Lane Mountain Arterial, 2U=2-Lane Undivided, 4U=4-Lane Undivided, 6D=6-Lane Divided, 4D=4-Lane Divided, 2UR=2-Lane Undivided Residential

- Redlands Boulevard from Driveway 7 to Encilia Avenue; and
- Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps.

5.6 Existing With Project Intersections Levels of Service

An intersection level of service analysis was conducted for existing with project conditions to determine circulation system performance. The existing with project traffic volumes at study intersections are illustrated in Figure 18. Detailed volume development worksheets are included in Appendix C. The existing with project levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix D. As shown in Table D, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Moreno Beach Drive/SR-60 Eastbound Ramps (a.m. and p.m. peak hours). Based on the relevant jurisdiction's thresholds of significance, the project has a cumulative impact at this location.

5.7 Existing With Project Roadway Segment Levels of Service

A level of service analysis was conducted for the study area roadway segments under existing with project conditions to determine circulation system performance. Detailed volume development worksheets are included in Appendix C. The existing with project levels of service for the study area roadway segments are summarized in Table E. As shown in Table E, all study area roadway segments are currently operating at satisfactory levels of service with the exception of the following:

- Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps. Based on the relevant jurisdiction's thresholds of significance, the project has a cumulative impact at this location.
- Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue. Based on the relevant jurisdiction's thresholds of significance, the project exceeds the City's operational requirement at this location.
- Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps. Based on the relevant jurisdiction's thresholds of significance, the project has a cumulative impact at this location.

6.0 OPENING YEAR (2024) CONDITIONS

This section discusses opening year (2024) transportation conditions in the study area. It is anticipated that the project will open in 2024.

6.1 Opening Year (2024) Roadway Conditions

Opening year (2024) roadway conditions will include a roundabout intersection located at Redlands Boulevard/Eucalyptus Avenue. This improvement will either be conditioned by the Sketchers expansion project or built by the City. The roundabout interim layout is shown in Figure 19.

6.2 Opening Year (2024) Transit Service

Transit service under opening year (2024) conditions are anticipated to remain the same as under existing conditions.

6.3 Opening Year (2024) Pedestrian & Bicycle Facilities

Pedestrian and bicycle facilities under opening year (2024) conditions are anticipated to remain the same as under existing conditions.

6.4 Opening Year (2024) Without Project Intersections Levels of Service

An intersection level of service analysis was conducted for opening year (2024) without project conditions to determine circulation system performance. Opening year (2024) without project traffic volumes at study intersections are shown

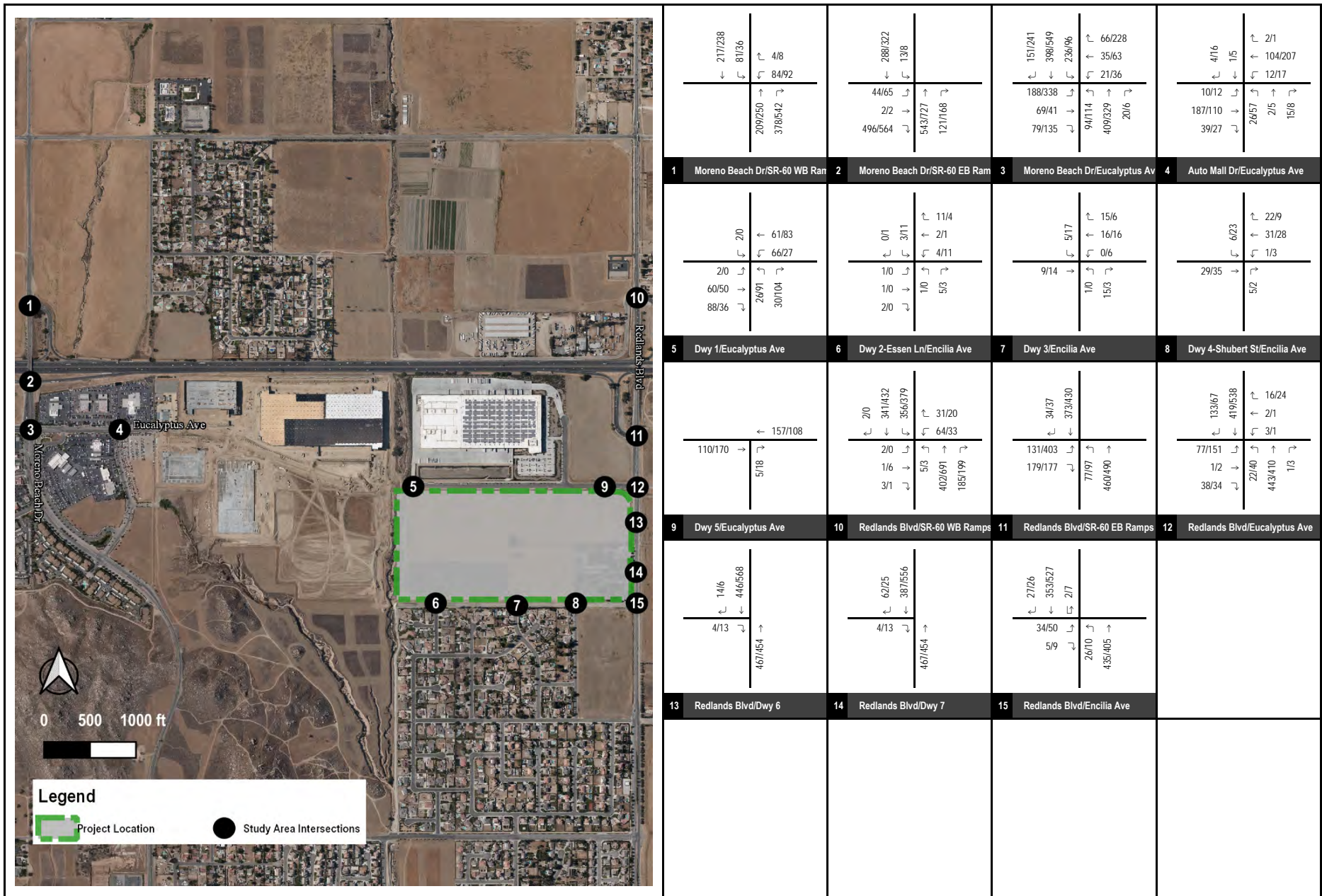
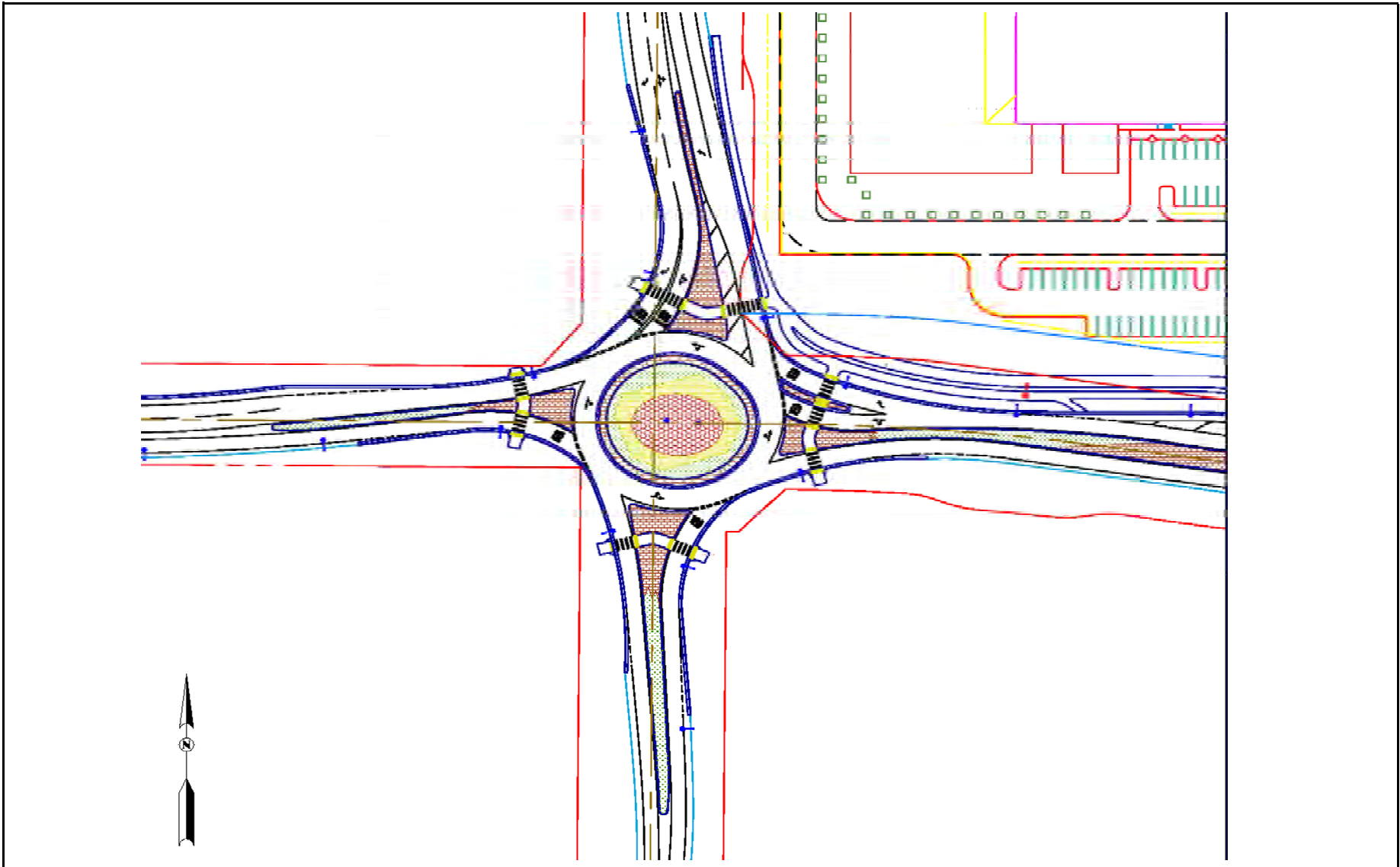


FIGURE 18

XXXX/YYYY AM/PM Peak Hour Traffic Volumes

Moreno Valley Trade Center
Existing With Project Peak Hour Traffic Volumes





Source: Roundabouts & Traffic Engineering (July, 2019)

FIGURE 19

**Moreno Valley Trade Center
Roundabout Interim Year (Redlands Boulevard/Eucalyptus Avenue)**



in Figure 20. Opening year (2024) without project levels of service for the study area intersections are summarized in Table F. Detailed volume development worksheets are included in Appendix C. Level of service calculation worksheets are contained in Appendix D. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Moreno Beach Drive/SR-60 Eastbound Ramps (a.m. and p.m. peak hours); and
- Redlands Boulevard/SR-60 Westbound Ramps (p.m. peak hour).

6.5 Opening Year (2024) Without Project Roadway Segment Levels of Service

A level of service analysis was conducted for the study area roadway segments under opening year (2024) without project conditions to determine circulation system performance. Detailed volume development worksheets are included in Appendix C. The opening year (2024) without project levels of service for the study area roadway segments are summarized in Table G. As shown in Table G, all study area roadway segments are projected to operate at satisfactory levels of service with the exception of the following:

- Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps;
- Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue;
- Redlands Boulevard from Eucalyptus Avenue to Driveway 6;
- Redlands Boulevard from Driveway 6 to Driveway 7;
- Redland Boulevard from Driveway 7 to Encilia Avenue; and
- Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps.

6.6 Opening Year (2024) With Project Intersections Levels of Service

An intersection level of service analysis was conducted for opening year (2024) with project conditions to determine circulation system performance. Opening year (2024) with project traffic volumes at study intersections are shown in Figure 21. The opening year (2024) with project levels of service for the study area intersections are summarized in Table F. Level of service calculation worksheets are contained in Appendix D. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Moreno Beach Drive/SR-60 Eastbound Ramps (a.m. and p.m. peak hours). Based on the relevant jurisdiction's thresholds of significance, the project has a cumulative impact at this location.
- Redlands Boulevard/SR-60 Westbound Ramps (p.m. peak hour). Based on the relevant jurisdiction's thresholds of significance, the project has a cumulative impact at this location.

6.7 Opening Year (2024) With Project Roadway Segment Levels of Service

A level of service analysis was conducted for the study area roadway segments under opening year (2024) with project conditions to determine current circulation system performance. Detailed volume development worksheets are included in Appendix C. The opening year (2024) with project levels of service for the study area roadway segments are summarized in Table G. As shown in Table G, all study area roadway segments are projected to operate at satisfactory levels of service with the exception of the following:

- Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps. Based on the relevant jurisdiction's thresholds of significance, the project has a cumulative impact at this location.
- Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue. Based on the relevant jurisdiction's thresholds of significance the project exceeds the City's operational requirement at this location.
- Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps. Based on the relevant jurisdiction's thresholds of significance, the project has a cumulative impact at this location.

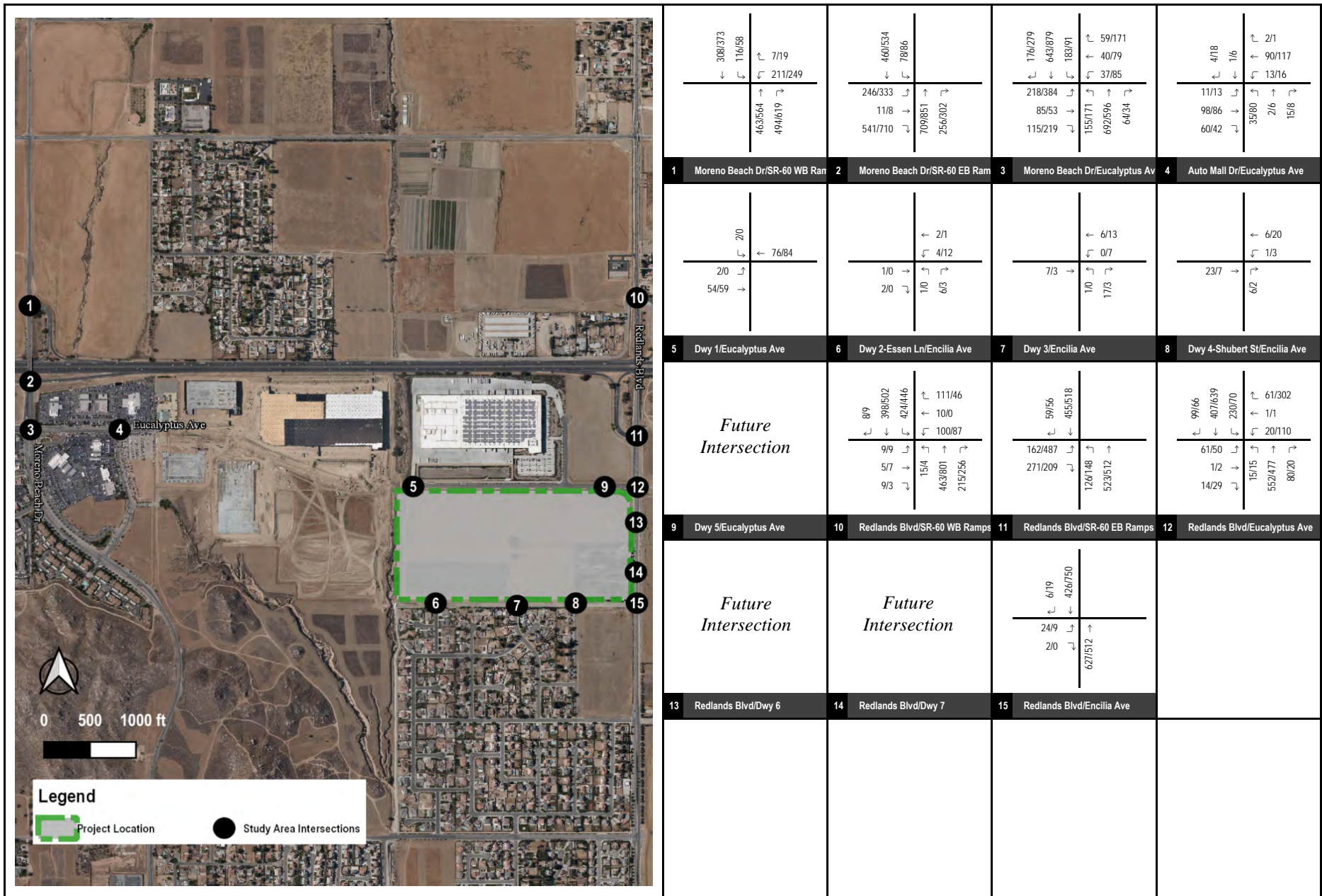


FIGURE 20

XXXX/YYYY AM/PM Peak Hour Traffic Volumes

Moreno Valley Trade Center
Opening Year Without Project Peak Hour Traffic Volumes



Table F: Opening Year (2024) Intersection Levels of Service

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		Exceed City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS			
1 . Moreno Beach Dr/SR-60 Westbound	D	Caltrans	Signal	16.9	B	16.1	B	12.6	B	13.9	B	-	-	-
2 . Moreno Beach Dr/SR-60 Eastbound	D	Caltrans	Signal	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
3 . Moreno Beach Dr/Eucalyptus Avenue	D	Moreno Valley	Signal	30.4	C	37.1	D	35.1	D	46.3	D	4.7	9.2	NO
4 . Auto Mall Dr/Eucalyptus Avenue	D	Moreno Valley	TWSC	10.5	B	11.7	B	11.5	B	13.8	B	1.0	2.1	NO
5 . Driveway 1/Eucalyptus Avenue	D	Moreno Valley	TWSC	9.5	A		A	10.7	B	10.6	B	1.2	10.6	NO
6 . Driveway 2-Essen Ln/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.7	A	8.8	A	0.3	0.5	NO
7 . Driveway 3/Encilia Avenue	D	Moreno Valley	TWSC	8.5	A	8.3	A	8.9	A	9.0	A	0.4	0.7	NO
8 . Driveway 4-Shubert Street/Encilia Av	D	Moreno Valley	TWSC	8.4	A	8.3	A	9.2	A	9.2	A	0.8	0.9	NO
9 . Driveway 5/Eucalyptus Avenue	D	Moreno Valley	TWSC	<i>Future Intersection</i>				8.7	A	8.9	A	-	-	-
10 . Redlands Boulevard/SR-60 Westbou	D	Caltrans	Signal	37.4	D	64.5	E *	40.1	D	65.1	E *	-	-	-
11 . Redlands Boulevard/SR-60 Eastbour	D	Caltrans	Signal	40.9	D	32.1	C	43.7	D	38.5	D	2.8	6.4	NO
12 . Redlands Boulevard/Eucalyptus Ave	D	Moreno Valley	Roundabout	16.0	C	8.4	A	19.7	C	10.4	B	3.7	2.0	NO
13 . Redlands Boulevard/Driveway 6	D	Moreno Valley	TWSC	<i>Future Intersection</i>				10.1	B	11.5	B	10.1	11.5	NO
14 . Redlands Boulevard/Driveway 7	D	Moreno Valley	TWSC	<i>Future Intersection</i>				10.1	B	11.6	B	10.1	11.6	NO
15 . Redlands Boulevard/Encilia Avenue	D	Moreno Valley	Signal	30.5	D	26.9	D	2.4	A	1.2	A	-28.1	-25.7	NO
												-	-	-

Notes:

LOS = Level of Service

Table G: Opening Year (2024) Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			Classification	Roadway Capacity	With Project			Change in V/C	Exceed City's Operational Requirement?
					Daily Volume	LOS	V/C			Daily Volume	LOS	V/C		
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	18,155	F *	1.452	2U	12,500	19,074	F *	1.526	-	-
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	16,324	F *	1.306	2U	12,500	18,049	F *	1.444	0.138	YES
3 . Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	16,024	B	0.641	-0.563	NO
4 . Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	16,010	B	0.640	-0.563	NO
5 . Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	15,683	B	0.627	-0.576	NO
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	18,159	F *	1.453	2U	12,500	18,836	F *	1.507	-	-
7 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	32,941	D	0.878	4D	37,500	34,250	E *	0.913	0.035	NO
8 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	2U	12,500	6,371	A	0.510	2U	12,500	7,795	B	0.624	0.114	NO
9 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	2,943	A	0.118	4U	25,000	4,425	A	0.177	0.059	NO
10 . Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	3U	18,750	2,822	A	0.150	4U	25,000	4,245	A	0.170	0.019	NO
11 . Eucalyptus Ave Aldi Pl to Driveway 5	City of Moreno Valley	D	3U	18,750	3,834	A	0.204	4U	25,000	5,257	A	0.210	0.006	NO
12 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	3U	18,750	3,834	A	0.204	4U	25,000	5,368	A	0.215	0.010	NO
13 . Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	2UR	2,000	240	A	0.120	4U	25,000	384	A	0.015	-0.104	NO
14 . Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	2UR	2,000	240	A	0.120	4U	25,000	592	A	0.024	-0.096	NO
15 . Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	2UR	2,000	524	A	0.262	4U	25,000	1,163	A	0.047	-0.215	NO

Notes:

LOS = Level of Service, 2MA=2-Lane Mountain Arterial, 2U=2-Lane Undivided, 4U=4-Lane Undivided, 6D=6-Lane Divided, 4D=4-Lane Divided, 2UR=2-Lane Undivided Residential

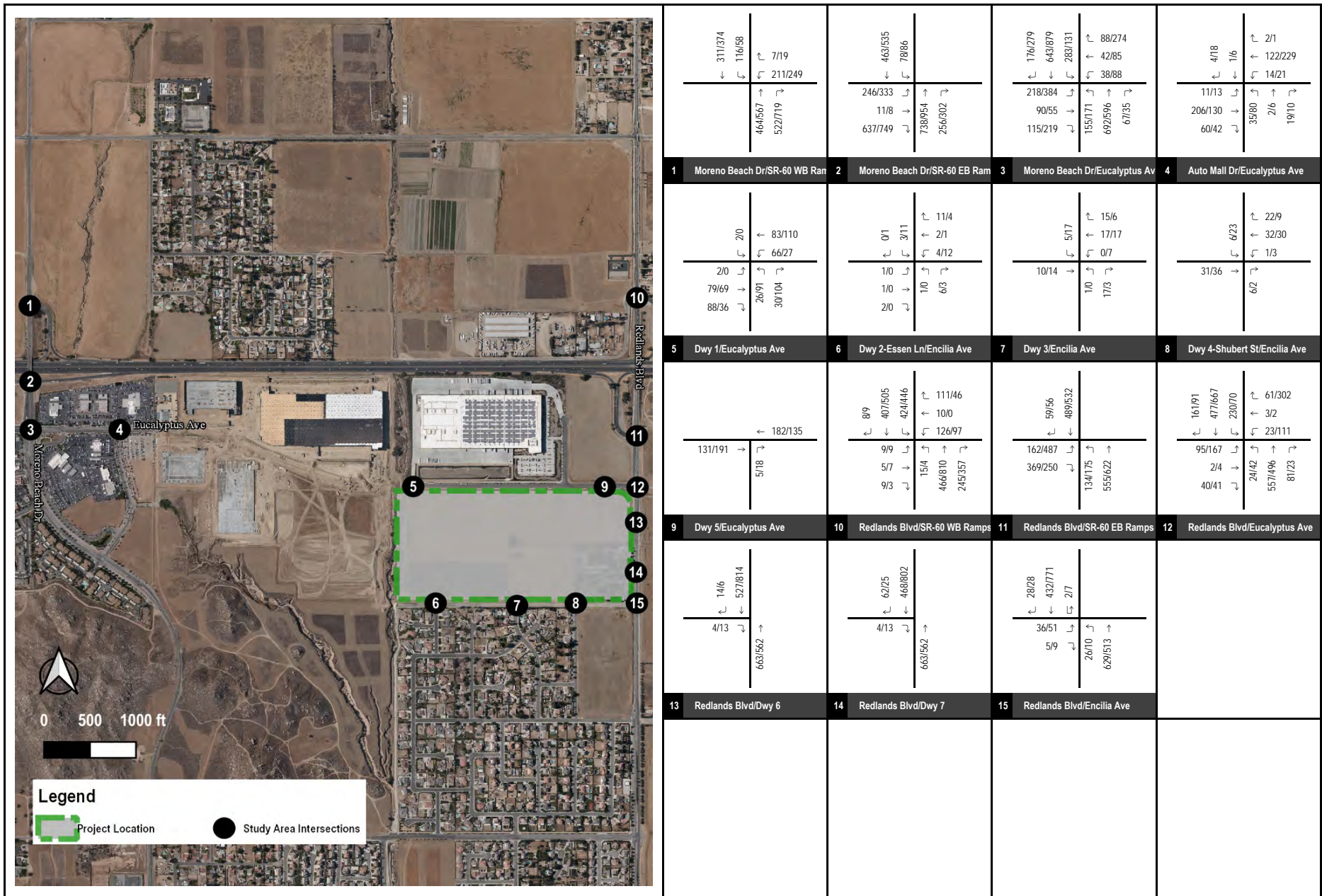


FIGURE 21

XXXX/YYYY AM/PM Peak Hour Traffic Volumes

Moreno Valley Trade Center
Opening Year With Project Peak Hour Traffic Volumes



7.0 GENERAL PLAN BUILD-OUT (2040) 2040 CONDITIONS

This section discusses the general plan build-out (2040) transportation conditions in the study area.

7.1 General Plan Build-Out (2040) 2040 Roadway Conditions

Based on the City of Moreno Valley TIA guidelines, the general plan build-out analysis includes the roadway geometrics identified in the City's General Plan cross-sections. Furthermore, the Moreno Beach Drive/SR-60 Interchange Phase 2 project is included in the City's Capital Improvement Plan (CIP) and indicates that the design phase was completed in 2019 and construction is anticipated to be completed by December 2021. The Redlands Boulevard/SR-60 Interchange is also proposed to be re-configured in the City's CIP, with the anticipated completion in 2023/2024 or later. Figure 22 illustrates the General Plan build-out intersection geometrics used in the analysis. General plan build-out (2040) roadway conditions will also include a roundabout intersection located at Redlands Boulevard/Eucalyptus Avenue. This improvement will either be conditioned by the Sketchers expansion project or built by the City. The roundabout build-out year layout is shown in Figure 23.

The City of Moreno Valley includes the following roadway characteristics:

- **Redlands Boulevard** is planned as a "Divided Arterial – 4 Lane" roadway from Cactus Avenue to Locust Avenue in the City's General Plan.
- **Eucalyptus Avenue** is planned as an "Arterial" roadway from west of Nason Street to east of World Logistics Center Parkway in the City's General Plan. An Arterial roadway can have up to 4 lanes.
- **Moreno Beach Drive** is planned as a "Divided Major Arterial" roadway from SR-60 Eastbound Ramps to south of John F. Kennedy Drive in the City's General Plan. A Divided Major Arterial can have up to 6 lanes with a median.

7.2 General Plan Build-Out (2040) Transit Service

Transit service under general plan build-out (2040) conditions are anticipated to remain the same as under opening year conditions.

7.3 Year 2040 Pedestrian & Bicycle Facilities

Proposed pedestrian trails in the City are included in previously referenced Figure 14. As shown in Figure 14, the following trail improvements are in the vicinity of the project:

- **Redlands Boulevard:** Proposed trail from Dracaea Avenue to north of Locust Avenue.
- **Eucalyptus Avenue:** Proposed trail from west of the proposed project to World Logistics Center Parkway.

Proposed Class II bike lanes within the project area are included in the City's Bicycle Master Plan and are shown in Figure 24. As shown in Figure 24, the following Class II bike lanes are planned in the vicinity of the project:

- **Redlands Boulevard:** Class II bicycle facilities are planned from Cactus Avenue to north of Locust Avenue.
- **Eucalyptus Avenue:** Class II bicycle facilities are planned from west of the project to World Logistics Center Parkway.

7.4 General Plan Build-Out (2040) Without Project Intersections Levels of Service

An intersection level of service analysis was conducted for general plan build-out (2040) without project conditions to determine circulation system performance. General plan build-out (2040) without project traffic volumes at study intersections are shown in Figure 25. General plan build-out (2040) without project levels of service for the study area intersections are summarized in Table H. Detailed volume development worksheets are included in Appendix C. Level of service calculation worksheets are contained in Appendix D. As shown in Table H, all study area intersections are forecast to operate at satisfactory levels of service.

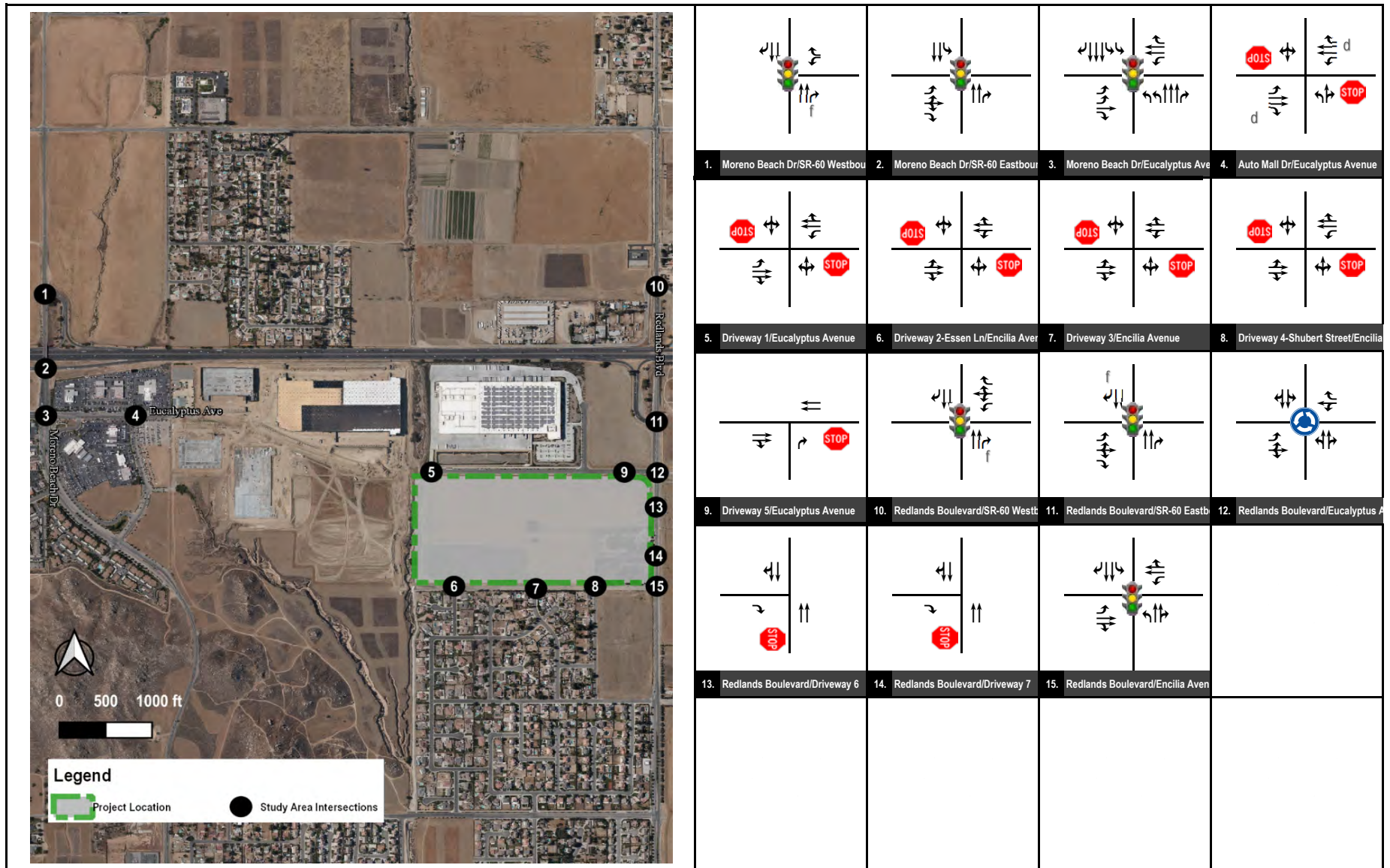


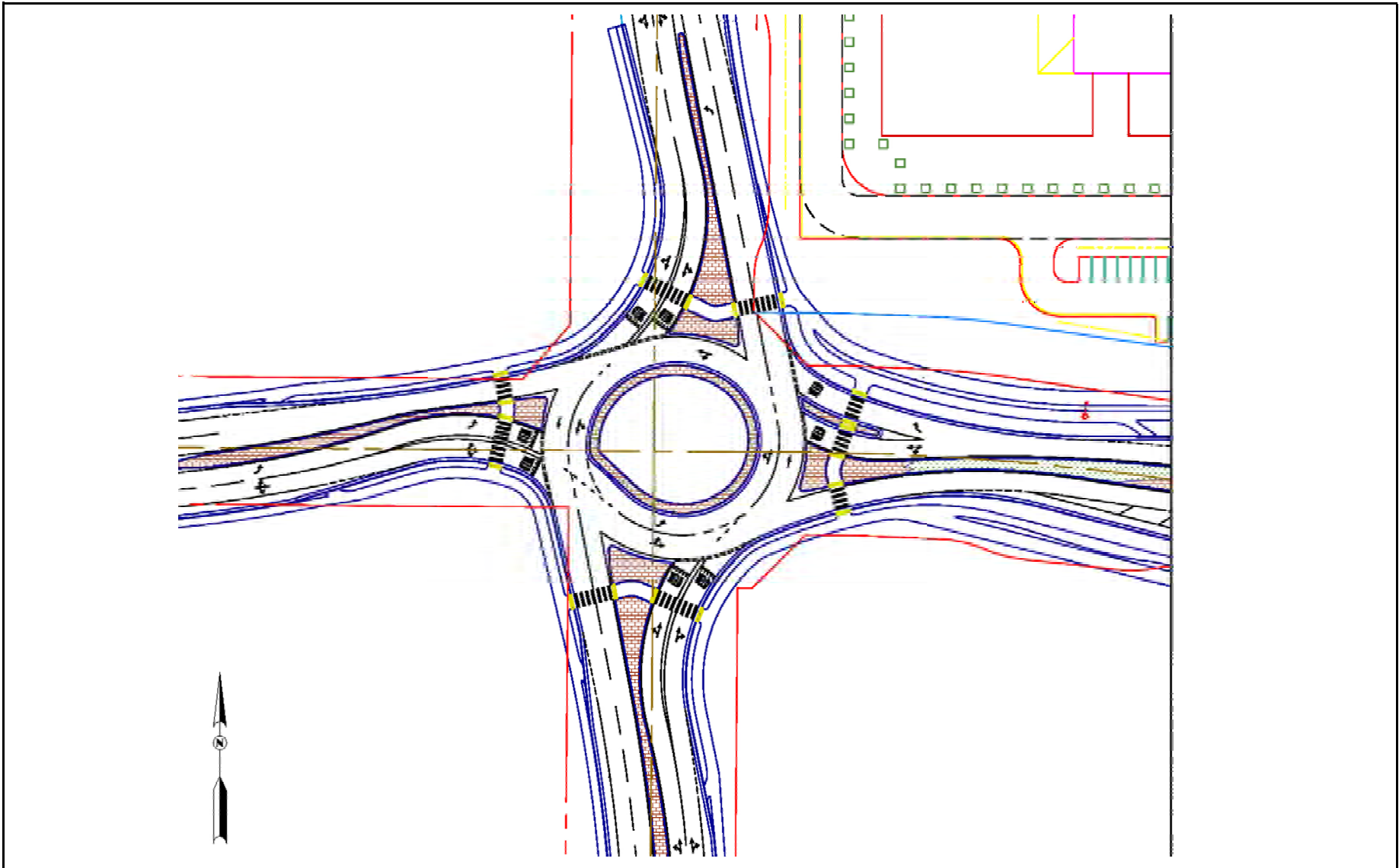
FIGURE 22

Legend

- Traffic Signal
- Stop Sign
- RT Overlap
- Defacto right turn

Moreno Valley Trade Center
General Plan Build-Out Intersection Geometrics and Stop Control





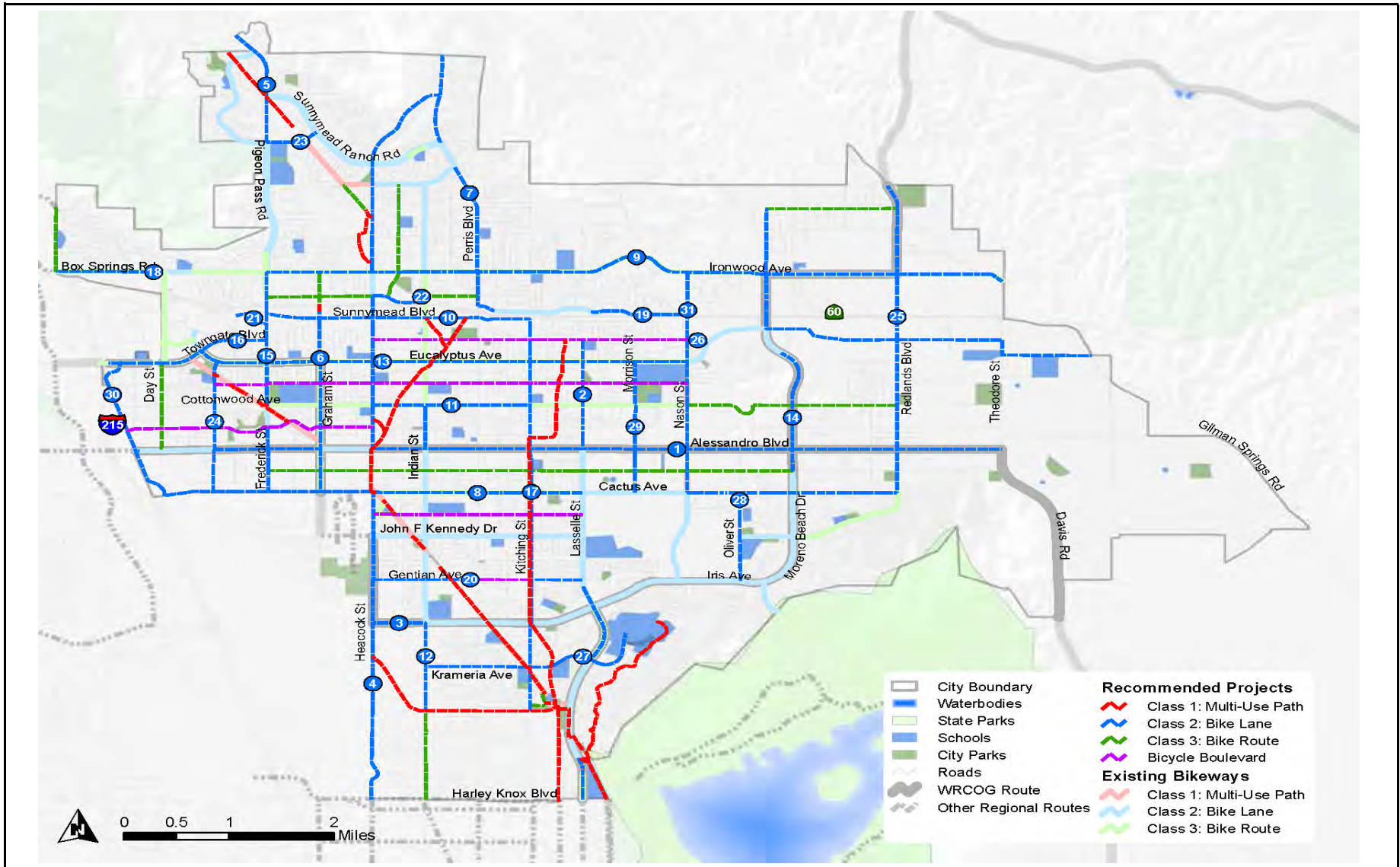
Source: Roundabouts & Traffic Engineering (July, 2019)

FIGURE 23

Moreno Valley Trade Center

Roudabout Build-Out Year (Redlands Boulevard/Eucalyptus Avenue)





Source: City of Moreno Valley Bicycle Master Plan

FIGURE 24

Moreno Valley Trade Center

City of Moreno Valley Recommended Class II Bicycle Lanes



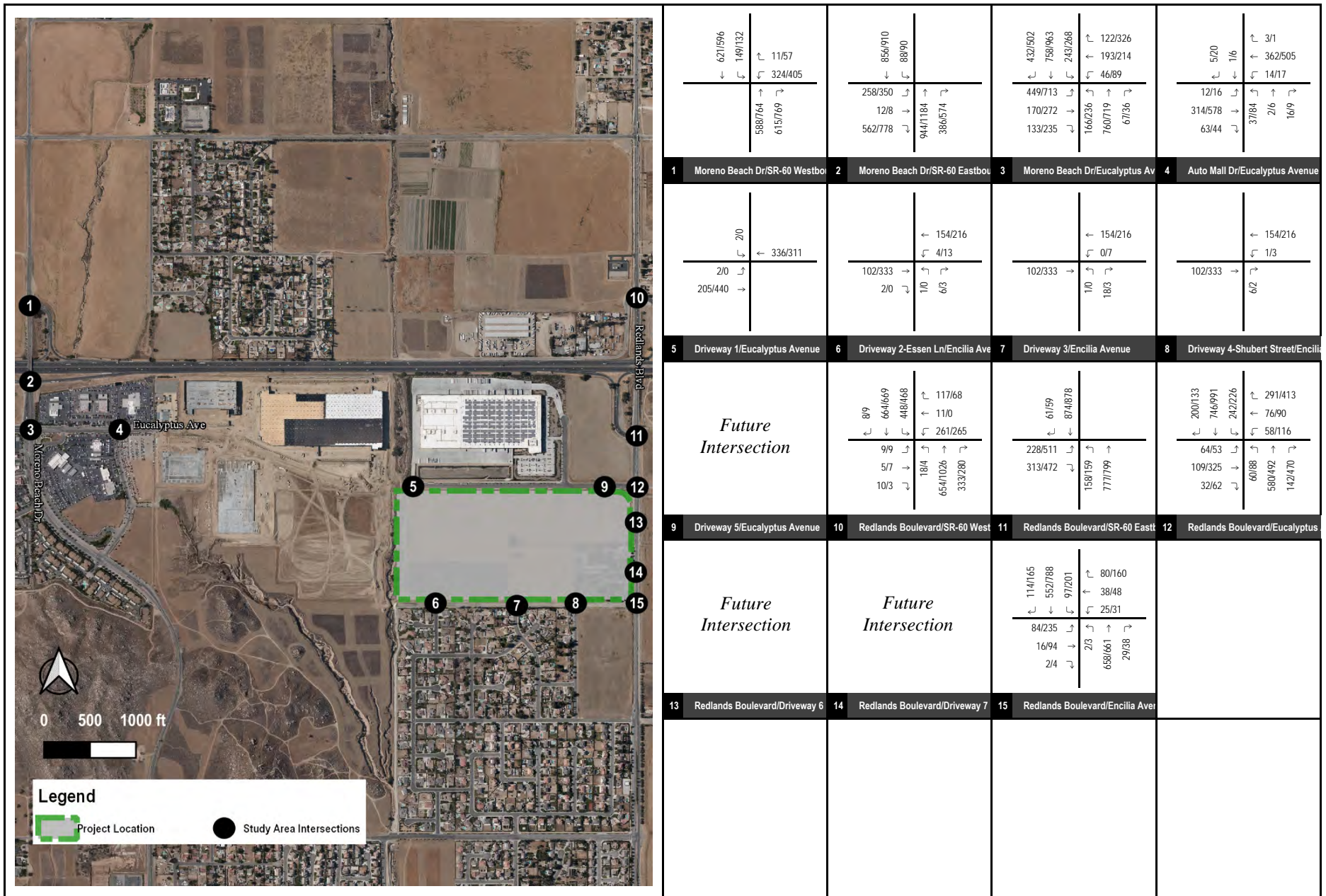


FIGURE 25

XXXX/YYYY AM/PM Peak Hour Traffic Volumes



Moreno Valley Trade Center
General Plan Build-Out (2040) Without Project Peak Hour Traffic Volumes

Table H: General Plan Build-Out (2040) Intersection Levels of Service

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		Exceed City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS			
1 . Moreno Beach Dr/SR-60 Westbound Ramps	D	Caltrans	Signal	2.8	A	0.2	A	2.8	A	0.1	A	-	-	-
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	D	Caltrans	Signal	15.1	B	27.6	C	16.4	B	33.4	C	-	-	-
3 . Moreno Beach Dr/Eucalyptus Avenue	D	Moreno Valley	Signal	32.4	C	49.0	D	34.2	C	53.9	D	1.8	4.9	NO
4 . Auto Mall Dr/Eucalyptus Avenue	D	Moreno Valley	TWSC	12.7	B	19.3	C	14.0	B	21.5	C	1.3	2.2	NO
5 . Driveway 1/Eucalyptus Avenue	D	Moreno Valley	TWSC	11.5	B		A	13.1	B	14.8	C	1.6	14.8	NO
6 . Driveway 2-Essen Ln/Encilia Avenue	D	Moreno Valley	TWSC	8.7	A	9.2	A	9.5	A	10.8	B	0.8	1.6	NO
7 . Driveway 3/Encilia Avenue	D	Moreno Valley	TWSC	8.7	A	9.2	A	9.1	A	11.0	B	0.4	1.8	NO
8 . Driveway 4-Shubert Street/Encilia Avenue	D	Moreno Valley	TWSC	8.6	A	9.2	A	9.2	A	10.3	B	0.6	1.1	NO
9 . Driveway 5/Eucalyptus Avenue	D	Moreno Valley	TWSC	<i>Future Intersection</i>				9.0	A	10.1	B	9.0	10.1	-
10 . Redlands Boulevard/SR-60 Westbound Ramps	D	Caltrans	Signal	9.6	A	7.5	A	11.6	B	7.6	A	-	-	-
11 . Redlands Boulevard/SR-60 Eastbound Ramps	D	Caltrans	Signal	14.7	B	20.7	C	16.3	B	16.9	B	-	-	NO
12 . Redlands Boulevard/Eucalyptus Avenue	D	Moreno Valley	Roundabout	8.6	A	16.1	C	9.7	B	20.3	C	1.1	4.2	NO
13 . Redlands Boulevard/Driveway 6	D	Moreno Valley	TWSC	<i>Future Intersection</i>				11.6	B	13.3	B	11.6	13.3	NO
14 . Redlands Boulevard/Driveway 7	D	Moreno Valley	TWSC	<i>Future Intersection</i>				11.6	B	13.4	B	11.6	13.4	NO
15 . Redlands Boulevard/Encilia Avenue	D	Moreno Valley	Signal	14.1	B	28.0	C	15.5	B	27.3	C	1.4	-0.7	NO

Notes:

LOS = Level of Service

7.5 General Plan Build-Out (2040) Without Project Roadway Segment Levels of Service

A level of service analysis was conducted for the study area roadway segments under general plan build-out (2040) without project conditions to determine circulation system performance. Detailed volume development worksheets are included in Appendix C. The general plan build-out (2040) without project levels of service for the study area roadway segments are summarized in Table I. As shown in Table I, all study area roadway segments are projected to operate at satisfactory levels of service.

7.6 General Plan Build-Out (2040) With Project Intersections Levels of Service

An intersection level of service analysis was conducted for general plan build-out (2040) with project conditions to determine circulation system performance. General plan build-out (2040) with project traffic volumes at study intersections are shown in Figure 26. The general plan build-out (2040) with project levels of service for the study area intersections are summarized in Table H. Level of service calculation worksheets are contained in Appendix D. As shown in Table H, all study area intersections are forecast to operate at satisfactory levels of service.

7.7 General Plan Build-Out (2040) With Project Roadway Segment Levels of Service

A level of service analysis was conducted for the study area roadway segments under general plan build-out (2040) with project conditions to determine circulation system performance. Detailed volume development worksheets are included in Appendix C. The general plan build-out (2040) with project levels of service for the study area roadway segments are summarized in Table I. As shown in Table I, all study area roadway segments are projected to operate at satisfactory levels of service.

8.0 CIRCULATION IMPROVEMENTS

The City requires that circulation improvements be recommended at any intersection or roadway segment which exceeds the operational requirements discussed previously in Chapter 3.3. These improvements can include conversion of stop control, signalization, changes to signal phasing, and/or addition of lanes as appropriate. The following improvements have been recommended:

8.1 Existing With Project Intersection Circulation Improvements

Under existing with project conditions, the following modifications to intersection configurations are recommended as circulation improvements as follows:

- Moreno Beach Drive/SR-60 Eastbound Ramps: Add a southbound through lane. Re-stripe the southbound through-left turn lane to a left-turn lane. Re-stripe the eastbound through-left turn lane to a left-through-right turn lane. These improvements are included in the City's DIF program. The project will pay DIF fees to these planned improvements.

Figure 27 illustrates the existing with project recommended improvements and Table J shows the resulting levels of service.

8.2 Existing With Project Roadway Segment Circulation Improvements

Under existing with project with project conditions, the following modifications to roadway segment configurations are recommended as mitigation measures in accord with CMP requirements as follows:

- Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps: Widen from 2 lanes to 4 lanes. These improvements are included in the City's DIF program. The project will pay DIF fees to these planned improvements.

Table I: General Plan Build-Out (2040) Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			With Project			Change in V/C	Exceed City's Operational Requirement?
					Daily Volume	LOS	V/C	Daily Volume	LOS	V/C		
1. Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	4D	37,500	25,690	B	0.685	26,609	C	0.710	0.025	NO
2. Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	26,068	B	0.695	27,793	C	0.741	0.046	NO
3. Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	26,255	B	0.700	0.026	NO
4. Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	26,241	B	0.700	0.026	NO
5. Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	25,914	B	0.691	0.017	NO
6. Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	6D	56,300	24,982	A	0.444	25,659	A	0.456	0.012	NO
7. Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	6D	56,300	44,511	C	0.791	45,820	D	0.814	0.023	NO
8. Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	4U	25,000	12,586	A	0.503	14,010	A	0.560	0.057	NO
9. Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	8,251	A	0.330	9,733	A	0.389	0.059	NO
10. Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	4U	25,000	7,912	A	0.316	9,335	A	0.373	0.057	NO
11. Eucalyptus Ave Aldi Pl to Driveway 5	City of Moreno Valley	D	4U	25,000	9,978	A	0.399	11,401	A	0.456	0.057	NO
12. Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	4U	25,000	9,978	A	0.399	11,512	A	0.460	0.061	NO
13. Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	4U	25,000	3,996	A	0.160	4,140	A	0.166	0.006	NO
14. Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	4U	25,000	3,996	A	0.160	4,348	A	0.174	0.014	NO
15. Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	4U	25,000	4,312	A	0.172	4,951	A	0.198	0.026	NO

Notes:

LOS = Level of Service, 2MA=2-Lane Mountain Arterial, 2U=2-Lane Undivided, 4U=4-Lane Undivided, 6D=6-Lane Divided, 4D=4-Lane Divided, 2UR=2-Lane Undivided Residential

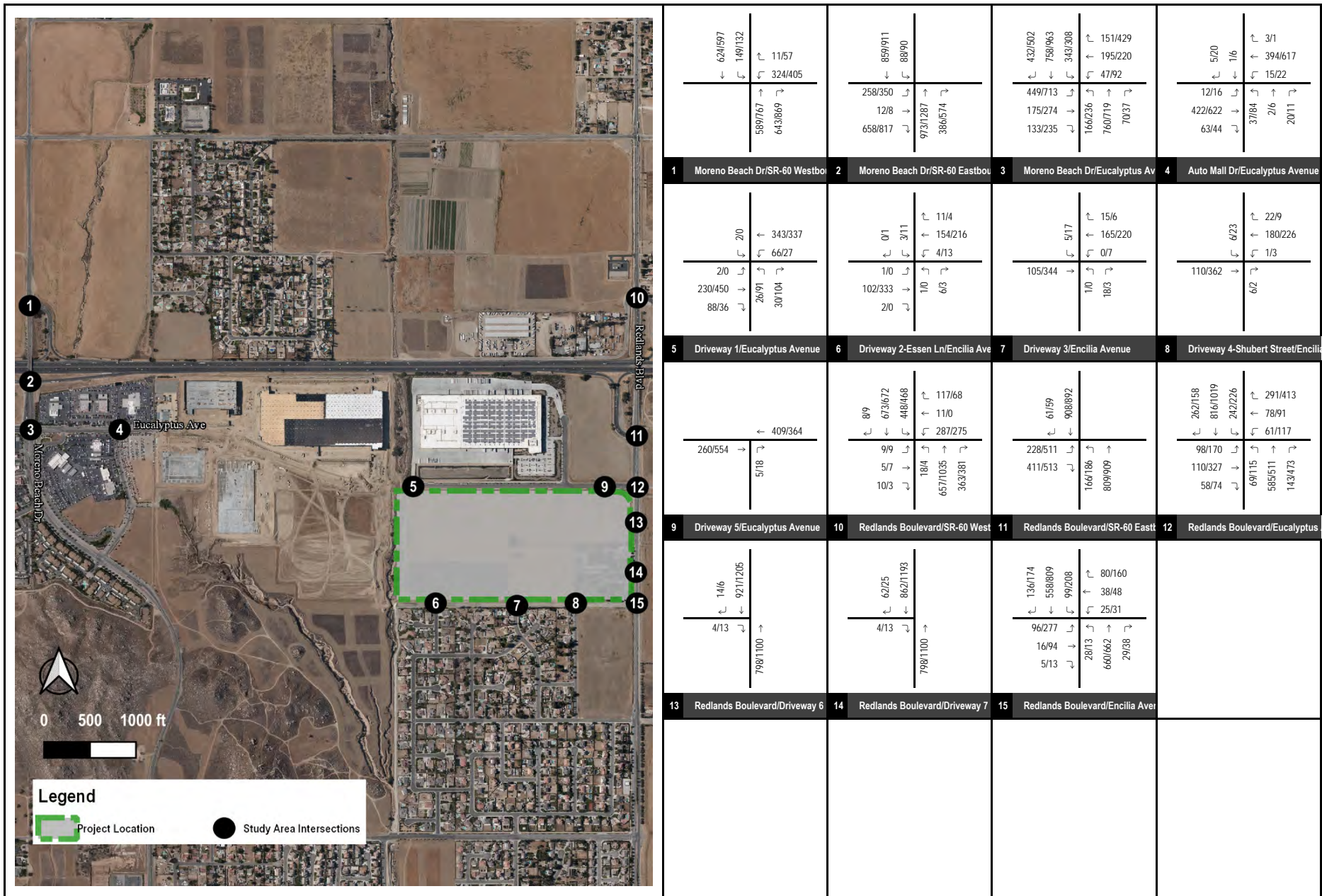


FIGURE 26

XXXX/YYYY AM/PM Peak Hour Traffic Volumes



Moreno Valley Trade Center
General Plan Build-Out (2040) With Project Peak Hour Traffic Volumes

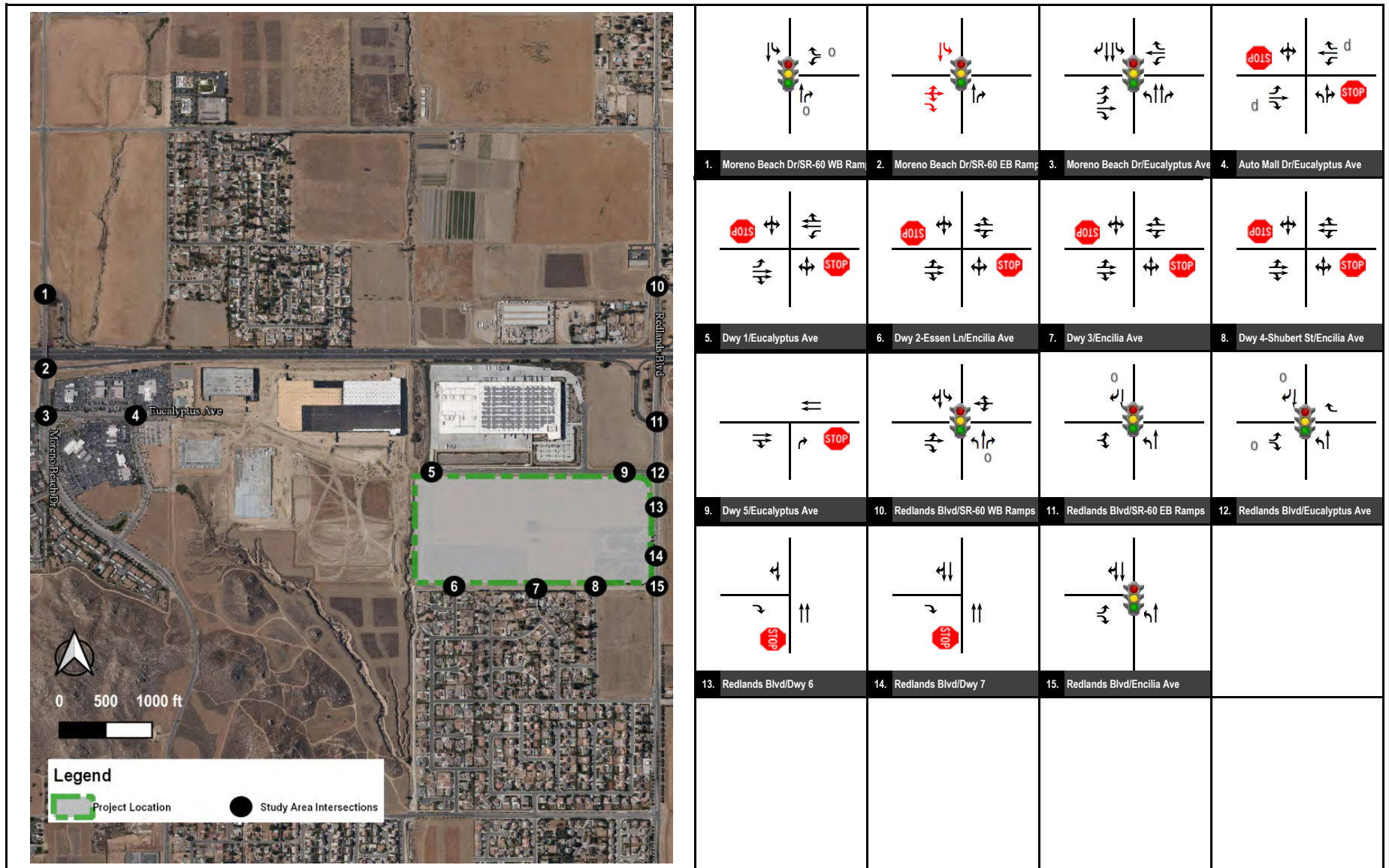


FIGURE 27

Legend

- Traffic Signal
- Stop Sign
- RT Overlap
- Defacto right turn
- Improvements

Moreno Valley Trade Center
Existing With Project With Improvements Intersection Geometrics and Stop Control

Table J: Existing With Project With Improvements Intersection Levels of Service

Intersection	LOS Standard	Jurisdiction	With Project				With Project With Improvements					
			Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	D	Caltrans	Signal	>100	F *	>100	F *	Signal	31.8	C	42.3	D

Notes:

LOS = Level of Service

- Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue: Widen from 2 lanes to 4 lanes. These improvements are included in the City's General Plan. The project will pay DIF fees to these planned improvements.
- Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps: Widen from 2 lanes to 4 lanes. These improvements are included in the City's DIF program. The project will pay DIF fees to these planned improvements.

Table K shows the resulting levels of service with the recommended improvements.

8.3 Opening Year (2024) With Project Intersection Circulation Improvements

Under opening year (2024) with project conditions, the following modifications to intersection configurations are recommended as circulation improvements as follows:

- Moreno Beach Drive/SR-60 Eastbound Ramps: Add a northbound through lane. Add a southbound through lane. Re-stripe the southbound through-left turn lane to a left-turn lane. Re-stripe the eastbound through-left turn lane to a left-through-right turn lane. The Moreno Beach Drive/SR-60 Interchange Phase 2 project is included in the City's Capital Improvement Plan (CIP) and indicates that the design phase was completed in 2019 and construction is anticipated to be completed by December 2021.
- Redlands Boulevard/SR-60 Westbound Ramps: An interchange re-configuration for the Redlands SR-60 Ramps is planned but not anticipated to be funded by opening year of the project. Therefore, an interim year improvement has been recommended to restore levels of service to pre-project conditions. The improvements include converting the northbound right-turn lane to a through-right lane. This may require the widening of the north leg of the intersection. The City will aid the applicant to acquire the necessary right-of-way if the widening is necessary.

Figure 28 illustrates the opening year (2024) with project recommended improvements and Table L shows the resulting levels of service.

8.4 Opening Year (2024) With Project Roadway Segment Circulation Improvements

Under opening year (2024) with project with project conditions, the following modifications to roadway segment configurations are recommended as mitigation measures in accord with CMP requirements as follows:

- Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps: Widen from 2 lanes to 4 lanes. The Redlands Boulevard/SR-60 Interchange is proposed to be re-configured in the City's CIP, with the anticipated completion in 2023/2024 or later.
- Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue: Widen from 2 lanes to 4 lanes. The Redlands Boulevard/SR-60 Interchange is proposed to be re-configured in the City's CIP, with the anticipated completion in 2023/2024 or later.
- Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps: Widen from 2 lanes to 6 lanes. The Moreno Beach Drive/SR-60 Interchange Phase 2 project is included in the City's Capital Improvement Plan (CIP) and indicates that the design phase was completed in 2019 and construction is anticipated to be completed by December 2021.

Table M shows the resulting levels of service with the recommended improvements.

9.0 QUEUING ANALYSIS

A queuing analysis was conducted at the study area intersections for the left and right turn lanes under existing, opening year (2024), and general plan build-out (2040) without and with project conditions. The 95th percentile back-of-queue lengths at the study area intersections have been reported. Tables N, O, and P show the queue lengths under each of

Table K: Existing with Project With Improvements Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	LOS Standard	With Project				With Project With Improvements			
			Classification	Roadway Capacity	Daily Volume	LOS	Classification	Roadway Capacity	Daily Volume	LOS
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	15,322	F *	4D	37,500	15,322	A
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	14,015	F *	4D	37,500	14,015	A
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	13,401	F *	4D	37,500	13,401	A

Notes:

LOS = Level of Service, 2MA=2-Lane Mountain Arterial, 2U=2-Lane Undivided, 4U=4-Lane Undivided, 6D=6-Lane Divided, 4D=4-Lane Divided, 2UR=2-Lane Undivided Residential

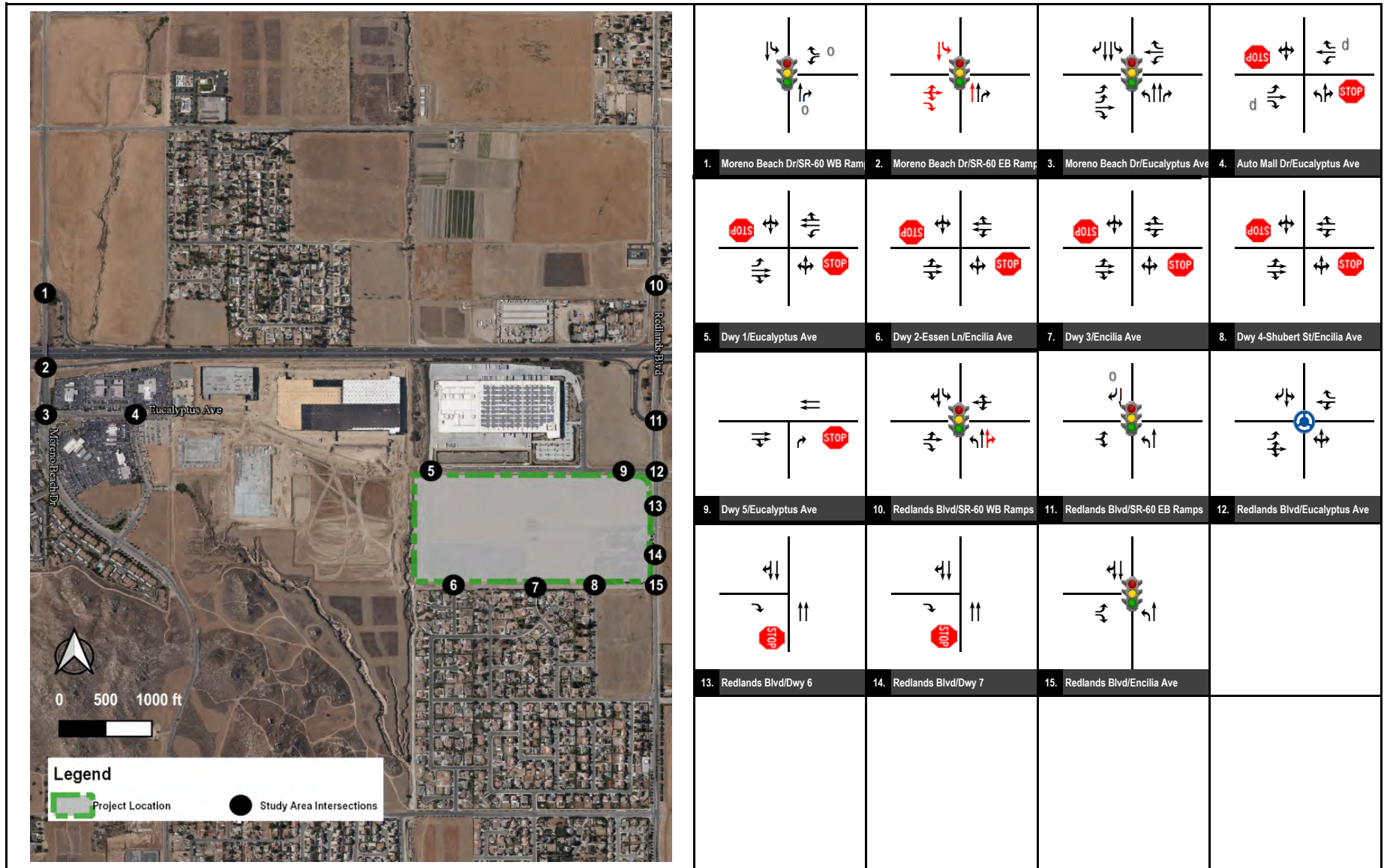


FIGURE 28

Legend

- Traffic Signal
- Stop Sign
- RT Overlap
- Defacto right turn
- Roundabout
- Improvements

Moreno Valley Trade Center
Opening Year (2024) With Project With Improvements Intersection Geometrics and Stop Control



Table L: Opening Year (2024) With Project With Improvements Intersection Levels of Service

Intersection	LOS Standard	Jurisdiction	With Project						With Project With Improvements			
			Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS
2 . Moreno Beach Dr/SR-60 Eastbound	D	Caltrans	Signal	>100	F *	>100	F *	Signal	32.9	C	43.2	D
10 . Redlands Boulevard/SR-60 Westbou	D	Caltrans	Signal	40.1	D	65.1	E *	Signal	35.1	D	56.7	E *

Notes:

LOS = Level of Service

Table M: Opening Year (2024) With Project With Improvements Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	LOS Standard	With Project				With Project With Improvements			
			Classification	Roadway Capacity	Daily Volume	LOS	Classification	Roadway Capacity	Daily Volume	LOS
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	19,074	F *	4D	37,500	19,074	A
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	18,049	F *	4D	37,500	18,049	A
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	18,836	F *	4D	37,500	18,836	A

Notes:

LOS = Level of Service, 2MA=2-Lane Mountain Arterial, 2U=2-Lane Undivided, 4U=4-Lane Undivided, 6D=6-Lane Divided, 4D=4-Lane Divided, 2UR=2-Lane Undivided Residential

Table N: Existing Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Without Project		With Project		
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹	
1 . Moreno Beach Dr/SR-60 Westbound Ramps	NBR	200	0	0	5	0	
	SBL	175	110	65	115	70	
	WBL	150	125	130	120	130	
	WBR	1220	10	15	10	15	
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	NBR	445	80	0	5	0	
	EBR	590	55	105	55	115	
3 . Moreno Beach Dr/Eucalyptus Avenue	NBL	240	125	150	130	150	
	NBR	100	0	0	0	0	
	SBL	120	180	60	185	65	
	SBR	150	95	25	25	25	
	EBL	225	85	160	105	170	
	EBR	150	25	30	25	30	
	WBL	115	45	60	50	65	
	WBR	140	0	65	15	70	
	4 . Auto Mall Dr/Eucalyptus Avenue	NBL	120	25	25	25	25
		EBL	50	0	0	0	0
EBR		25	0	0	0	0	
WBL		85	0	0	0	0	
WBR		25	0	0	0	0	
10 . Redlands Boulevard/SR-60 Westbound Ramps	NBL	125	10	0	10	0	
	NBR	250	5	30	0	65	
	SBL	325	330	520	320	525	
	EBR	25	0	0	0	0	
11 . Redlands Boulevard/SR-60 Eastbound Ramps	NBL	300	105	110	110	150	
	SBR	70	0	0	5	0	
12 . Redlands Boulevard/Eucalyptus Avenue	NBL	100	35	35	50	70	
	SBR	390	5	5	10	5	
	EBR	315	5	10	35	25	
15 . Redlands Boulevard/Encilia Avenue	EBL	600	25	25	25	25	
	EBR	600	0	0	0	0	

Notes:

Bold = Queue exceeds storage length.

¹Queues reported are 95th Percentile queue lengths per movement in feet.

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left, T = Through, R = Right.

Table O: Opening Year (2024) Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Without Project		With Project	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
1 . Moreno Beach Dr/SR-60 Westbound Ramps	NBR	200	0	0	0	0
	SBL	175	160	95	155	95
	WBL	150	240	270	240	270
	WBR	1220	10	20	10	20
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	NBR	445	55	115	25	115
	EBR	590	60	260	160	310
3 . Moreno Beach Dr/Eucalyptus Avenue	NBL	240	195	240	190	250
	NBR	100	5	0	10	0
	SBL	120	150	70	200	85
	SBR	150	25	5	15	5
	EBL	225	85	230	135	230
	EBR	150	55	110	70	35
	WBL	115	70	115	70	120
	WBR	140	0	70	10	85
4 . Auto Mall Dr/Eucalyptus Avenue	NBL	120	25	25	25	25
	EBL	50	0	0	0	0
	EBR	25	0	0	0	0
	WBL	85	0	0	0	25
	WBR	25	0	0	0	0
10 . Redlands Boulevard/SR-60 Westbound Ramps	NBL	125	20	5	20	5
	NBR	250	35	55	10	75
	SBL	325	570	645	570	645
	EBR	25	0	0	0	0
11 . Redlands Boulevard/SR-60 Eastbound Ramps	NBL	300	170	230	200	285
	SBR	70	10	5	5	10
12 . Redlands Boulevard/Eucalyptus Avenue						
	SBR	390	0	0	25	0
15 . Redlands Boulevard/Encilia Avenue	EBL	600	25	25	50	50
	EBR	600	0	0	0	25

Notes:

Bold = Queue exceeds storage length.

¹Queues reported are 95th Percentile queue lengths per movement in feet.

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left, T = Through, R = Right.

Table P: General Plan Build-Out (2040) Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Without Project		With Project	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
1 . Moreno Beach Dr/SR-60 Westbound Ramps	NBR	200	40	45	50	140
	SBR	150	25	30	25	30
	WBL	150	310	360	310	360
	WBR	1220	15	30	15	30
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	NBR	445	160	180	170	0
	EBR	590	165	305	220	330
3 . Moreno Beach Dr/Eucalyptus Avenue	NBL	240	100	160	100	160
	NBR	100	0	0	0	0
	SBL	120	130	140	165	160
	SBR	150	65	110	55	125
	EBL	225	240	290	240	295
	EBR	150	75	15	70	15
	WBL	115	70	115	70	110
	WBR	140	60	115	65	215
4 . Auto Mall Dr/Eucalyptus Avenue	NBL	120	25	25	25	50
	EBL	50	0	0	0	25
	EBR	25	0	0	0	0
	WBL	85	0	25	0	25
	WBR	25	0	0	0	0
10 . Redlands Boulevard/SR-60 Westbound Ramps	NBR	500	0	0	0	0
	SBR	300	5	25	5	10
	WBL	485	170	125	185	175
	WBR	300	50	35	55	40
11 . Redlands Boulevard/SR-60 Eastbound Ramps	NBR	350	20	30	25	25
	SBR	350	0	0	0	0
15 . Redlands Boulevard/Encilia Avenue	NBL	250	10	10	-	-
	SBL	200	120	155	120	190
	SBR	150	20	35	30	45
	EBL	250	105	180	115	195
	WBL	250	45	45	45	40

Notes:

Bold = Queue exceeds storage length.

¹Queues reported are 95th Percentile queue lengths per movement in feet.

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left, T = Through, R = Right.

the analysis years for without and with project conditions. A queuing analysis for with project with improvements conditions under existing, opening year (2024), and general plan build-out (2040) conditions are shown in Tables Q and R. The City does not have thresholds of significance for intersection queues and with the implementation of the recommended improvements, the study intersections are forecast to operate at satisfactory levels of service. Therefore, the queuing analysis is for informational purposes only.

10.0 PARKING

On-site parking demand is illustrated in previously referenced Figure 4 which shows that 637 auto parking stalls for autos are located to the west of the building adjacent to Redlands Boulevard and southeast of the building adjacent to Encilia Avenue. The 278 trailer parking stalls for trucks is provided to the north of the building along Eucalyptus Avenue.

11.0 VEHICLE MILES TRAVELED (VMT) ANALYSIS

Senate Bill 743 (SB-743), which was codified in Public Resources Code section 21099, was signed by the Governor in 2013 and directed the Governor's Office of Planning and Research (OPR) to identify alternative metrics for evaluating transportation impacts under CEQA. Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." Recently adopted changes to the CEQA Guidelines in response to Section 21099 include a new section (15064.3) that specifies that Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts. A separate Technical Advisory issued by OPR provides additional technical details on calculating VMT and assessing transportation impacts for various types of projects.

The City of Moreno Valley has prepared updated *Traffic Impact Analysis Guidelines* (Guidelines) for Land Use Projects in June 2020 to address changes to CEQA pursuant to SB-743 to include VMT analysis methodology and thresholds. The City recommends using VMT per employee for industrial projects. Based on the Guidelines, a project would result in a significant project generated VMT impact under either of the following conditions:

1. A project would have a significant VMT impact if, in the Existing Plus Project scenario, its net VMT per capita (for residential projects) or per employee (for office and industrial projects) exceeds the average VMT for Moreno Valley. For all other uses, a net increase in VMT would be considered a significant impact.
2. If a project is consistent with the regional RTP/SCS, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence. If it is not consistent with the RTP/SCS, then it would have a significant VMT impact if:
 - a. For residential projects its net VMT per capita exceeds the average VMT per capita for Moreno Valley in the RTP/SCS horizon-year.
 - b. For office and industrial projects its net VMT per employee exceeds the average VMT per employee for Moreno Valley in the RTP/SCS horizon-year
 - c. For all other land development project types, a net increase in VMT in the RTP/SCS horizon-year would be considered a significant impact.

While the City doesn't specify impact thresholds for project effect on VMT, the Guidelines require disclosure of the cumulative link-level boundary VMT per service population within City of Moreno Valley increases under the plus project condition compared to the no project condition.

Analysis Methodology. The VMT analysis was conducted using two steps. First, the Per Employee VMT was calculated from the Riverside Transportation Analysis Model (RivTAM). Since the project includes characteristics which

Table Q: Existing With Project With Improvements Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	With Project With Improvements	
			AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	NBR	445	0	0
	EBR	590	55	80
	SBL	250	30	25

Notes:

Bold = Queue exceeds storage length.

¹Queues reported are 95th Percentile queue lengths per movement in feet.

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left, T = Through, R = Right.

Table R: Opening Year (2024) With Project With Improvements Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	With Project With Improvements	
			AM Peak Hour	PM Peak Hour
			Queue Length ¹	Queue Length ¹
2 . Moreno Beach Dr/SR-60 Eastbound Ramps	NBR	445	60	100
	EBR	590	245	305
	SBL	250	115	115
10 . Redlands Boulevard/SR-60 Westbound Ramps	NBL	125	20	5
	SBL	325	535	585
	EBR	25	0	0

Notes:

Bold = Queue exceeds storage length.

¹Queues reported are 95th Percentile queue lengths per movement in feet.

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left, T = Through, R = Right.

reduce VMT but cannot be evaluated using the RivTAM, those calculations were conducted off-model. The methodology for the analysis is discussed below.

- **RivTAM Calculations.** The RivTAM uses a base year of 2012 and a future year of 2040. Both the base year and future year models were run for the without and with project scenarios. VMT outputs are included in Appendix F A. Consistent to the Guidelines, the baseline (2020) conditions VMT was calculated by interpolating between the Base Year (2012) and Future Year (2040) RivTAM runs. As with the Baseline Without Project Conditions, the Project Baseline (2020) conditions were calculated by interpolating between the Base Year (2012) and Future Year (2040) RivTAM runs. The base and future year “plus project” conditions VMT was derived by adding the project land use to a separate TAZ and full model runs were performed to isolate the VMT for the project.
- **Off-Model Calculations.** The RivTAM is not very responsive to some land use inputs such as increased density, bicycle and pedestrian connections, and proximity to transit (for example, TAZs are typically large which precludes the 0.25-mile transit accessibility radius). VMT reductions from such inputs are typically conducted outside the model. This section discusses the methodology applied for project characteristics that cannot be adequately evaluated in the model. The project includes the following strategies that the RivTAM is not responsive to:
 - With the completion of the project, new trails on the west side of the project will be constructed within the project property line and will extend to the north and south from Encilia Avenue to Eucalyptus Avenue. Due to the fact that the RivTAM does not adequately account for active transportation modes, VMT reductions due to the trail completion was based on percentage reduction in VMT based on annual VMT under a business as usual (no trail scenario) and reductions under “with trail” conditions from the California Emissions Estimator Model (CalEEMod). It should be noted that since only percentage reductions were used, trip parameters in the CalEEMod were not changed.

PROJECT ANALYSIS

RivTAM Analysis. As stated earlier, the first part of the VMT analysis was conducted using the RivTAM. Table S summarizes the findings of the Base Year (2012) model runs and the Future Year (2040) model runs respectively. As seen on Table S, the Future Year (2040) project VMT per employee is 12.35 miles, which is less than the City of Moreno Valley VMT/Capita of 12.43 miles, showing a less than significant impact under cumulative conditions.

Based on the City’s Guidelines, Baseline 2020 VMT was calculated by interpolating between the model base and future years. Table S shows the resulting Baseline 2020 VMT for the City and the Project. As seen in Table S, the project VMT per employee is 11.60 miles, which is 1.69% greater than the City of Moreno Valley VMT/Employee of 11.41 miles.

The City also requires analysis of project effect on VMT within the City’s roadways for disclosure although no thresholds are specified. This analysis was based on the RivTAM. Tables T show the results of the analysis for the Base Year (2012), Future Year (2040), and Baseline Year (2020) conditions. As seen from Table T, the project does not increase VMT per employee within the City limits under all scenarios.

Off-Model Analysis. As stated earlier, specific project design features that cannot be conducted using the RivTAM were calculated separately using CalEEMod and CAPCOA guidelines. Table U shows the calculations for these reductions. CalEEMod worksheets are included in Appendix F. Table V shows the project generated VMT after accounting for these project features. As shown on Table V, the project VMT is lower than the City VMT for both the baseline and cumulative conditions.

Based on the evaluation described above, with the implementation of the project design features, the project will have less than significant VMT impacts under CEQA.

Table S: Project VMT

	Total Homebased Work VMT	Total Employment	VMT/Employee
Year 2012			
Project	11,304	1,000	11.30
City of Moreno Valley			11.00
Year 2040			
Project	12,349	1,000	12.35
City of Moreno Valley			12.43
Year 2020			
Project	11,603	1,000	11.60
City of Moreno Valley			11.41
Project as a Percentage of City			101.69%

Table T: Project Effect on VMT

	Without Project	With Project	Difference
Year 2012			
Total VMT	1,717,720	1,727,215	9,495
Service Population	225,662	226,662	1,000
VMT per Service Population	7.6	7.6	0.0
Year 2040			
Total VMT	2,783,726	2,773,183	(10,543)
Service Population	307,007	308,007	1,000
VMT per Service Population	9.1	9.0	-0.1
Year 2020			
Total VMT	2,022,293	2,026,063	3,770
Service Population	248,903	249,903	1,000
VMT per Service Population	8.0	8.0	0.0

Table U: VMT Due to Project Design Features

	Annual VMT	% Reduction	Source
Project VMT (Without PDF) - Pedestrian Connections Off-Site	15,540,009		CalEEMod CalEEMod
VMT Reduction Due to PDF	310,800		
Project VMT (With PDF)	15,229,209	2.0%	

Table V: Project VMT With Project Design Features

	Project VMT/Employee	% of City VMT
Baseline (2020) Project VMT/Employee	11.60	101.69%
Baseline (2020) Project VMT/Employee After PDF	11.37	99.66%
Year 2040 Project VMT/Employee	12.35	99.32%
Year 2040 Project VMT/Employee After PDF	12.10	97.34%

12.0 CALTRANS ANALYSIS

With the implementation of SB 743, Caltrans has recently approved the Caltrans *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (May 2020). The guidelines consider different types of transportation impacts than previously examined. When analyzing the impact of VMT on the State Highway System resulting from local land use projects, the focus will no longer be on traffic at intersections and roadways immediately around project sites. Instead, the focus will be on how projects are likely to influence the overall amount of automobile use. Caltrans review of land use projects and plans will be focused on a VMT metric, consistent with the changes to the CEQA guidelines. Beyond the VMT metric, additional future guidance will include the bases for requesting transportation impact analysis that is not based on VMT and will include a simplified safety analysis approach that reduces risks to all road users and focuses on multi-modal conflict analysis as well as access management issues. With this guidance, Caltrans will transition away from requesting LOS or other vehicle operations analysis of land use projects. Although Caltrans is shifting away from vehicle LOS for land use projects, Caltrans District 8 has requested that a vehicle LOS analysis be conducted for the project. The following discusses the Caltrans traffic analysis and includes the forecast traffic volume methodology and levels of service analyses.

12.1 Analysis Scenarios

Based on Caltrans guidelines, traffic conditions were analyzed for the following scenarios:

1. Existing Conditions;
2. Existing plus Project Conditions;
3. 2040 Conditions; and
4. 2040 plus Project Conditions.

12.2 Freeway Analysis

A freeway analysis was conducted for the project consistent with HCM 6th Edition methodology, which uses vehicle density (passenger cars per mile per lane) as the LOS criteria. The existing traffic volumes are based on data from Caltrans and conservation of flow was applied to the freeway facilities to obtain consistent traffic volumes. Year 2040 traffic volumes were developed using the MVTM consistent with the methodology described earlier in the report in chapter 4.3. Detailed volume development worksheets are included in Appendix B.

12.3 Existing Freeway Levels of Service

A level of service analysis was conducted for the study area freeway facilities under existing conditions to determine current circulation system performance. Detailed volume development worksheets are included in Appendix C. The existing levels of service for the study area freeway facilities are summarized in Table W. Level of service calculation worksheets are contained in Appendix D. As shown in Table W, the following segments are forecast to operate at unsatisfactory levels of service:

- State Route 60 Eastbound: Byrne Road to Valley Way (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Valley Way to Rubidoux Boulevard (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Rubidoux Boulevard to Market Street (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Market Street to Main Street (a.m. and p.m. peak hours);
- Interstate 215 Southbound: SR-91 to 3rd Street (a.m. peak hour);
- Interstate 215 Southbound: Martin Luther King Boulevard to Central Avenue (p.m. peak hour);
- Interstate 215 Southbound: Central Avenue to Box Springs Road (p.m. peak hour);
- Interstate 215 Southbound: Box Springs Road to I-215 (p.m. peak hour);

Table W: Existing With Project Freeway Levels of Service

Freeway Ramp/Segment	Eastbound/Southbound							
	Without Project				With Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)	
SR-60								
I-15 to Etiwanda Ave.	21.6	C	23.7	C	22.0	C	23.9	C
Etiwanda Ave. to Country Village Rd.	17.8	B	19.3	C	18.1	C	19.4	C
Country Village Rd. to Pedley Rd.	14.9	B	16.0	B	15.2	B	16.1	B
Pedley Rd. to Pyrite St.	16.2	B	17.5	B	16.5	B	17.6	B
Pyrite St. to Byrne Rd.	20.4	C	19.7	C	20.8	C	19.8	C
Byrne Rd. to Valley Way	38.1	E *	35.8	E *	39.1	E *	36.1	E *
Valley Way to Rubidoux Blvd.	38.2	E *	35.8	E *	39.1	E *	36.1	E *
Rubidoux Blvd. to Market St.	41.2	E *	38.5	E *	42.2	E *	38.8	E *
Market St. to Main St.	-	F *	-	F *	-	F *	-	F *
Main St. to SR-91	32.3	D	25.8	C	32.7	D	26.0	C
I-215								
SR-91 to 3rd St.	35.5	E *	29.0	D	36.0	E *	29.2	D
3rd St. to University Ave.	32.3	D	31.1	D	30.8	D	31.4	D
University Ave. to Martin Luther King Blvd.	30.6	D	29.7	D	31.0	D	29.9	D
Martin Luther King Blvd. to Central Ave.	32.6	D	-	F *	33.3	D	-	F *
Central Ave. to Box Springs Rd.	26.3	C	37.8	E *	26.7	C	38.0	E *
Box Springs Rd. to I-215	27.8	D	-	F *	28.4	D	-	F *
SR-60								
I-215 to Day St.	18.6	B	24.6	C	19.0	B	24.8	C
Day St. to Pigeon Pass Rd.	21.6	C	30.7	D	22.1	C	30.9	D
Pigeon Pass Rd. to Heacock St.	26.2	D	-	F *	27.3	D	-	F *
Heacock St. to Perris Blvd.	23.1	C	32.9	D	24.1	C	33.5	D
Perris Blvd. to Nason St.	20.7	C	27.2	D	21.6	C	27.7	D
Nason St. to Moreno Beach Dr. Off-Ramp	10.5	A	13.6	B	11.2	B	13.9	B
Moreno Beach Dr. Off-Ramp	13.0	B	15.7	B	13.5	B	15.8	B
Between Moreno Beach Dr. Ramps	11.9	B	15.1	B	12.3	B	15.2	B
Moreno Beach Dr. On-Ramp	14.2	B	17.8	B	14.6	B	17.9	B
Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	13.1	B	16.7	B	13.5	B	16.8	B
Between Redlands Blvd. Ramps	11.3	B	11.7	B	11.3	B	11.7	B
Redlands Blvd. On-Ramp	12.7	B	13.2	B	12.7	B	13.3	B
East of Redlands Blvd. On-Ramp	12.2	B	12.7	B	12.2	B	12.8	B

Table W: Existing With Project Freeway Levels of Service

Freeway Ramp/Segment	Westbound/Northbound							
	Without Project				With Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)	
SR-60								
East of Redlands Blvd. Off-Ramp	13.6	B	14.8	B	13.7	B	14.9	B
Redlands Blvd. Off-Ramp	17.0	B	18.6	B	17.0	B	18.6	B
Between Redlands Blvd. Ramps	12.9	B	14.4	B	12.9	B	14.4	B
Redlands Blvd. On-Ramp	17.5	B	18.8	B	17.6	B	19.2	B
Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	17.5	B	18.8	C	17.6	B	19.2	C
Moreno Beach Dr. Off-Ramp	21.1	C	22.4	C	21.3	C	22.9	C
Between Moreno Beach Dr. Ramps	16.7	B	17.9	B	16.8	B	18.3	C
Moreno Beach Dr. to Nason St.	16.6	B	18.0	B	16.8	B	18.7	B
Nason St. to Perris Blvd.	23.0	C	24.5	C	23.3	C	25.6	C
Perris Blvd. to Heacock St.	22.7	C	27.0	D	23.0	C	28.2	D
Heacock St. to Pigeon Pass Rd.	18.5	C	25.0	C	18.8	C	26.0	C
Pigeon Pass Rd. to Day St.	22.9	C	26.3	C	23.1	C	27.1	C
Day St. I-215	22.2	C	28.5	D	22.5	C	29.7	D
I-215								
I-215 to Box Springs Rd.	24.4	C	33.3	D	24.6	C	34.0	D
Box Springs Rd. to Central Ave.	-	F *	44.6	F *	-	F *	-	F *
Central Ave. to Martin Luther King Blvd.	24.6	C	23.0	C	24.8	C	23.5	C
Martin Luther King Blvd. to University Ave.	42.0	E *	33.4	D	42.2	E *	34.1	D
University Ave. to 3rd St.	25.4	C	23.6	C	25.5	C	24.0	C
3rd St. to SR-91	31.4	D	27.6	C	31.6	D	28.0	D
SR-60								
SR-91 to Main St.	-	F *	20.8	C	-	F *	21.3	C
Main St. to Market St.	43.4	E *	26.8	D	43.8	E *	27.4	D
Market St. to Rubidoux Blvd.	26.2	D	29.2	D	26.3	D	29.9	D
Rubidoux Blvd. to Valley Way	25.0	C	27.7	D	25.2	C	28.3	D
Valley Way to Pyrite St.	17.8	B	19.3	C	17.9	B	19.6	C
Pyrite St. to Pedley Rd.	17.7	B	19.1	C	17.8	B	19.5	C
Pedley Rd. to Country Village Rd.	17.6	B	19.1	C	17.7	B	19.4	C
Country Village Rd. to Etiwanda Ave.	20.8	C	23.0	C	21.0	C	23.4	C
Etiwanda Ave. to I-15	16.1	B	14.3	B	16.2	B	14.6	B

- State Route 60 Eastbound: Pigeon Pass Road to Heacock Street (p.m. peak hour);
- Interstate 215 Northbound: Box Springs Road to Central Avenue (a.m. and p.m. peak hours);
- Interstate 215 Northbound: Martin Luther King Boulevard to University Avenue (a.m. peak hour);
- State Route 60 Westbound: SR-91 to Main Street (a.m. peak hour); and
- State Route 60 Westbound: Main Street to Market Street (a.m. peak hour).

12.4 Existing With Project Freeway Levels of Service

A level of service analysis was conducted for the study area freeway facilities under existing with project conditions to determine current circulation system performance. Detailed volume development worksheets are included in Appendix C. The existing levels of service for the study area freeway facilities are summarized in Table W. Level of service calculation worksheets are contained in Appendix D. As shown in Table W, the following segments are forecast to operate at unsatisfactory levels of service:

- State Route 60 Eastbound: Byrne Road to Valley Way (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Valley Way to Rubidoux Boulevard (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Rubidoux Boulevard to Market Street (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Market Street to Main Street (a.m. and p.m. peak hours);
- Interstate 215 Southbound: SR-91 to 3rd Street (a.m. peak hour);
- Interstate 215 Southbound: Martin Luther King Boulevard to Central Avenue (p.m. peak hour);
- Interstate 215 Southbound: Central Avenue to Box Springs Road (p.m. peak hour);
- Interstate 215 Southbound: Box Springs Road to I-215 (p.m. peak hour);
- State Route 60 Eastbound: Pigeon Pass Road to Heacock Street (p.m. peak hour);
- Interstate 215 Northbound: Box Springs Road to Central Avenue (a.m. and p.m. peak hours);
- Interstate 215 Northbound: Martin Luther King Boulevard to University Avenue (a.m. peak hour);
- State Route 60 Westbound: SR-91 to Main Street (a.m. peak hour); and
- State Route 60 Westbound: Main Street to Market Street (a.m. peak hour).

12.5 Year 2040 Freeway Levels of Service

A level of service analysis was conducted for the study area freeway facilities under year 2040 conditions to determine current circulation system performance. Detailed volume development worksheets are included in Appendix C. The existing levels of service for the study area freeway facilities are summarized in Table X. Level of service calculation worksheets are contained in Appendix D. As shown in Table X, the following segments are forecast to operate at unsatisfactory levels of service:

- State Route 60 Eastbound: Pyrite Street to Byrne Road (a.m. peak hour);
- State Route 60 Eastbound: Byrne Road to Valley Way (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Valley Way to Rubidoux Boulevard (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Rubidoux Boulevard to Market Street (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Market Street to Main Street (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Main Street to SR-91 (a.m. peak hour);
- Interstate 215 Southbound: SR-91 to 3rd Street (a.m. peak hour);
- Interstate 215 Southbound: 3rd Street to University Avenue (a.m. and p.m. peak hours);
- Interstate 215 Southbound: University Avenue to Martin Luther King Boulevard (a.m. and p.m. peak hours);

Table X: Year 2040 With Project Freeway Levels of Service

Freeway Ramp/Segment	Eastbound/Southbound							
	Without Project				With Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)	
SR - 60								
I-15 to Etiwanda Ave.	34.3	D	25.0	C	34.9	D	25.2	C
Etiwanda Ave. to Country Village Rd.	31.0	D	20.4	C	31.5	D	20.6	C
Country Village Rd. to Pedley Rd.	28.1	D	18.4	C	28.6	D	18.5	C
Pedley Rd. to Pyrite St.	30.9	D	20.2	C	31.4	D	20.3	C
Pyrite St. to Byrne Rd.	37.3	E *	22.8	C	37.9	E *	22.9	C
Byrne Rd. to Valley Way	-	F *	39.1	E *	-	F *	39.4	E *
Valley Way to Rubidoux Blvd.	-	F *	-	F *	-	F *	-	F *
Rubidoux Blvd. to Market St.	-	F *	-	F *	-	F *	-	F *
Market St. to Main St.	-	F *	-	F *	-	F *	-	F *
Main St. to SR-91	-	F *	28.8	D	-	F *	28.9	D
I-215								
SR-91 to 3rd St.	-	F *	34.5	D	-	F *	34.5	D
3rd St. to University Ave.	-	F *	35.8	E *	-	F *	36.0	E *
University Ave. to Martin Luther King Blvd.	-	F *	35.8	E *	-	F *	36.0	E *
Martin Luther King Blvd. to Central Ave.	-	F *	-	F *	-	F *	-	F *
Central Ave. to Box Springs Rd.	-	F *	-	F *	-	F *	-	F *
Box Springs Rd. to I-215	-	F *	-	F *	-	F *	-	F *
SR-60								
I-215 to Day St.	-	F *	29.4	D	-	F *	29.7	D
Day St. to Pigeon Pass Rd.	25.5	C	-	F *	26.0	C	-	F *
Pigeon Pass Rd. to Heacock St.	34.2	D	-	F *	35.7	E *	-	F *
Heacock St. to Perris Blvd.	31.6	D	-	F *	33.1	D	-	F *
Perris Blvd. to Nason St.	29.1	D	41.9	E *	30.4	D	42.8	E *
Nason St. to Moreno Beach Dr. Off-Ramp	14.7	B	28.7	D	15.3	B	29.0	D
Moreno Beach Dr. Off-Ramp	16.5	B	28.3	D	17.0	B	28.4	D
Between Moreno Beach Dr. Ramps	16.0	B	37.1	E *	16.4	B	37.5	E *
Moreno Beach Dr. On-Ramp	20.2	C	38.5	E *	20.6	C	-	F *
Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	19.2	C	-	F *	19.6	C	-	F *
Between Redlands Blvd. Ramps	15.4	B	30.3	D	15.4	B	30.3	D
Redlands Blvd. On-Ramp	17.6	B	31.0	D	17.6	B	31.1	D
East of Redlands Blvd. On-Ramp	17.1	B	32.6	D	17.1	B	32.8	D

Table X: Year 2040 With Project Freeway Levels of Service

Freeway Ramp/Segment	Westbound/Northbound							
	Without Project				With Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)		Density (pc/mi/ln)	
SR-60								
East of Redlands Blvd. Off-Ramp	29.7	D	28.2	D	29.9	D	28.3	D
Redlands Blvd. Off-Ramp	30.9	D	29.9	D	30.9	D	29.9	D
Between Redlands Blvd. Ramps	25.9	C	24.7	C	25.9	C	24.7	C
Redlands Blvd. On-Ramp	32.1	D	30.0	D	32.2	D	30.4	D
Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	35.6	E *	31.8	D	35.8	E *	32.5	D
Moreno Beach Dr. Off-Ramp	36.5	E *	33.3	D	36.6	E *	33.8	D
Between Moreno Beach Dr. Ramps	32.8	D	28.6	D	33.0	D	29.2	D
Moreno Beach Dr. to Nason St.	30.3	D	29.8	D	30.5	D	30.6	D
Nason St. to Perris Blvd.	-	F *	30.1	D	-	F *	31.5	D
Perris Blvd. to Heacock St.	31.4	D	35.0	D	31.8	D	36.7	E *
Heacock St. to Pigeon Pass Rd.	21.4	C	29.0	D	21.7	C	30.3	D
Pigeon Pass Rd. to Day St.	21.5	C	26.2	C	21.7	C	27.0	C
Day St. I-215	22.2	C	36.9	E *	22.5	C	38.8	E *
I-215								
I-215 to Box Springs Rd.	25.8	C	-	F *	26.0	C	-	F *
Box Springs Rd. to Central Ave.	-	F *	-	F *	-	F *	-	F *
Central Ave. to Martin Luther King Blvd.	28.1	D	32.4	D	28.3	D	33.1	D
Martin Luther King Blvd. to University Ave.	-	F *	-	F *	-	F *	-	F *
University Ave. to 3rd St.	27.6	C	30.8	D	27.7	C	31.3	D
3rd St. to SR-91	-	F *	38.4	E *	-	F *	39.0	E *
SR-60								
SR-91 to Main St.	-	F *	-	F *	-	F *	-	F *
Main St. to Market St.	-	F *	-	F *	-	F *	-	F *
Market St. to Rubidoux Blvd.	29.2	D	-	F *	29.4	D	-	F *
Rubidoux Blvd. to Valley Way	26.5	D	-	F *	26.7	D	-	F *
Valley Way to Pyrite St.	18.7	C	27.2	D	18.8	C	27.6	D
Pyrite St. to Pedley Rd.	18.6	C	29.8	D	18.6	C	30.3	D
Pedley Rd. to Country Village Rd.	18.5	C	29.5	D	18.6	C	30.0	D
Country Village Rd. to Etiwanda Ave.	21.9	C	32.3	D	22.0	C	32.8	D
Etiwanda Ave. to I-15	16.9	B	19.2	C	17.0	B	19.5	C

- Interstate 215 Southbound: Martin Luther King Boulevard to Central Avenue (a.m. and p.m. peak hours);
- Interstate 215 Southbound: Central Avenue to Box Springs Road (a.m. and p.m. peak hours);
- Interstate 215 Southbound: Box Springs Road to I-215 (a.m. and p.m. peak hours);
- State Route 60 Eastbound: I-215 to Day Street (a.m. peak hour);
- State Route 60 Eastbound: Day Street to Pigeon Pass Road (p.m. peak hour);
- State Route 60 Eastbound: Pigeon Pass Road to Heacock Street (p.m. peak hour);
- State Route 60 Eastbound: Heacock Street to Perris Boulevard (p.m. peak hour);
- State Route 60 Eastbound: Perris Boulevard to Nason Street (p.m. peak hour);
- State Route 60 Eastbound: Between Moreno Beach Drive Ramps (p.m. peak hour);
- State Route 60 Eastbound: Moreno Beach Drive On-Ramp (p.m. peak hour);
- State Route 60 Eastbound: Moreno Beach Drive On-Ramp to Redlands Boulevard Off-Ramp (p.m. peak hour);
- State Route 60 Westbound: Redlands Boulevard On-Ramp to Moreno Beach Drive Off-Ramp (a.m. peak hour);
- State Route 60 Westbound: Moreno Beach Drive Off-Ramp (a.m. peak hour);
- State Route 60 Westbound: Nason Street to Perris Boulevard (a.m. peak hour);
- State Route 60 Westbound: Day Street to I-215 (p.m. peak hour);
- Interstate 215 Northbound: I-215 to Box Springs Road (p.m. peak hour);
- Interstate 215 Northbound: Box Springs Road to Central Avenue (a.m. and p.m. peak hours);
- Interstate 215 Northbound: Martin Luther King Boulevard to University Avenue (a.m. and p.m. peak hours);
- Interstate 215 Northbound: 3rd Street to SR-91 (a.m. and p.m. peak hours);
- State Route 60 Westbound: SR-91 to Main Street (a.m. and p.m. peak hours);
- State Route 60 Westbound: Main Street to Market Street (a.m. and p.m. peak hours);
- State Route 60 Westbound: Market Street to Rubidoux Boulevard (p.m. peak hour);
- State Route 60 Westbound: Rubidoux Boulevard to Valley Way (p.m. peak hour);

12.6 Year 2040 With Project Freeway Levels of Service

A level of service analysis was conducted for the study area freeway facilities under year 2040 with project conditions to determine current circulation system performance. Detailed volume development worksheets are included in Appendix C. The existing levels of service for the study area freeway facilities are summarized in Table X. Level of service calculation worksheets are contained in Appendix D. As shown in Table X, the following segments are forecast to operate at unsatisfactory levels of service:

- State Route 60 Eastbound: Pyrite Street to Byrne Road (a.m. peak hour);
- State Route 60 Eastbound: Byrne Road to Valley Way (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Valley Way to Rubidoux Boulevard (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Rubidoux Boulevard to Market Street (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Market Street to Main Street (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Main Street to SR-91 (a.m. peak hour);
- Interstate 215 Southbound: SR-91 to 3rd Street (a.m. and p.m. peak hours);
- Interstate 215 Southbound: 3rd Street to University Avenue (a.m. and p.m. peak hours);
- Interstate 215 Southbound: University Avenue to Martin Luther King Boulevard (a.m. and p.m. peak hours);

- Interstate 215 Southbound: Martin Luther King Boulevard to Central Avenue (a.m. and p.m. peak hours);
- Interstate 215 Southbound: Central Avenue to Box Springs Road (a.m. and p.m. peak hours);
- Interstate 215 Southbound: Box Springs Road to I-215 (a.m. and p.m. peak hours);
- State Route 60 Eastbound: I-215 to Day Street (a.m. peak hour);
- State Route 60 Eastbound: Day Street to Pigeon Pass Road (p.m. peak hour);
- State Route 60 Eastbound: Pigeon Pass Road to Heacock Street (a.m. and p.m. peak hours);
- State Route 60 Eastbound: Heacock Street to Perris Boulevard (p.m. peak hour);
- State Route 60 Eastbound: Perris Boulevard to Nason Street (p.m. peak hour);
- State Route 60 Eastbound: Between Moreno Beach Drive Ramps (p.m. peak hour);
- State Route 60 Eastbound: Moreno Beach Drive On-Ramp (p.m. peak hour);
- State Route 60 Eastbound: Moreno Beach Drive On-Ramp to Redlands Boulevard Off-Ramp (p.m. peak hour);
- State Route 60 Westbound: Redlands Boulevard On-Ramp to Moreno Beach Drive Off-Ramp (a.m. peak hour);
- State Route 60 Westbound: Moreno Beach Drive Off-Ramp (a.m. peak hour);
- State Route 60 Westbound: Nason Street to Perris Boulevard (a.m. peak hour);
- State Route 60 Westbound: Perris Boulevard to Heacock Street (p.m. peak hour);
- State Route 60 Westbound: Day Street to I-215 (p.m. peak hour);
- Interstate 215 Northbound: I-215 to Box Springs Road (p.m. peak hour);
- Interstate 215 Northbound: Box Springs Road to Central Avenue (a.m. and p.m. peak hours);
- Interstate 215 Northbound: Martin Luther King Boulevard to University Avenue (a.m. and p.m. peak hours);
- Interstate 215 Northbound: 3rd Street to SR-91 (a.m. and p.m. peak hours);
- State Route 60 Westbound: SR-91 to Main Street (a.m. and p.m. peak hours);
- State Route 60 Westbound: Main Street to Market Street (a.m. and p.m. peak hours);
- State Route 60 Westbound: Market Street to Rubidoux Boulevard (p.m. peak hour);
- State Route 60 Westbound: Rubidoux Boulevard to Valley Way (p.m. peak hour);

13.0 IMPACT CRITERIA FOR CEQA DETERMINATION

This section evaluates the CEQA checklist for impact evaluation.

A. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The project is consistent with the City's adopted plans and policies. With implementation of the recommended improvements, the project has less than significant impacts based on the City's impact criteria. The project would not conflict with adopted policies supporting alternative transportation modes. The project will not change roadway designations from those in the City's General Plan. The project will also not result in removal of any of the facilities listed above. Therefore, the project impact is considered less than significant.

B. Conflict or be inconsistent with CEQA Guidelines 15064.3, subdivision (b)?

The Future Year (2040) project VMT per employee is 12.35 miles, which is less than the City of Moreno Valley VMT/employee of 12.43 miles, showing a less than significant impact under cumulative conditions. The project effect on VMT under Base Year (2012), Future Year (2040), and Baseline Year (2020) conditions does not increase VMT per employee within the City limits under any scenario.

C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The design of driveways and other project access locations will be based on City Code, which sets the standard for such design. It is not anticipated that traffic hazards will increase.

D. Result in inadequate emergency access?

The proposed driveways will be designed in accordance with all applicable design and safety standards required by adopted fire codes, safety codes, and building codes established by the City's Engineering and Fire Departments. The project will not increase delays on street segments substantially, therefore, the project will not result in inadequate emergency access, and the project impact is considered less than significant.

14.0 SUMMARY & CONCLUSIONS

The proposed project is forecast to generate 363 new PCE trips in the a.m. peak hour, 404 new PCE trips in the p.m. peak hour, and 3,665 new PCE daily trips. Based on the intersection and roadway segment LOS analysis, with the construction of the circulation improvements, all intersections and roadway segments will operate at satisfactory LOS.

APPENDIX A: SCOPING AGREEMENT



SCOPING AGREEMENT FOR TRAFFIC IMPACT ANALYSIS

Date: January 29, 2020

This letter acknowledges the City of Moreno Valley Transportation Engineering Division requirements for the traffic impact analysis of the following project.

Case No. NOT AVAILABLE
Project Name: Moreno Valley Trade Center
Project Address: Southwest corner of Redlands Blvd. and Eucalyptus Ave.
Project Description: 1,332,380 SF Warehouse building

	<u>Consultant</u>	<u>Developer</u>
Name:	Translutions, Inc.	Hillwood Development
Address:	17632 Irvine Blvd., Suite 200 Tustin, CA 92780	901 Via Piemonte, Suite 175 Ontario, CA 91764
Telephone:	(949) 656-3131	

I. Background

The proposed development is located on a vacant parcel at the southwest corner of Redlands Blvd./Eucalyptus Ave. in the City of Moreno Valley. The project is a 1,332,380 SF Warehouse Building. Project access will be via one full-access driveway and right-out only for trucks on Eucalyptus Ave., two right-in/right-out access driveways on Redlands Blvd., and three full-access driveways on Encilia Ave. The southerly driveway on Redlands Boulevard will include inbound truck access and prohibit outbound truck traffic. On-site features will be developed to prohibit outbound truck traffic. See Figure 1 (Site Plan) for the access locations.

II. Trip Geographic Distribution and Assignment*

*Trip Distribution/Trip Assignment diagrams for autos and trucks are included in the attached Figures 4 thru 8.

III. Site Trip Generation Forecast

- A. Trip Generation is based on the ITE Trip Generation Manual (10th edition)
- B. AM Peak: 7:00-9:00 AM (based upon existing 24-hour traffic counts)

- C. PM Peak: 4:00-6:00 PM (based upon existing 24-hour traffic counts)
- D. Intersection and link acceptable Level of Service “D” for some intersections and links and Level of Service “C” for others based upon the current City policy. (Use Highway Capacity Manual - latest edition - operations procedures; parameters per County of Riverside Traffic Impact Analysis Guidelines.)

Proposed Use Rates*

*Proposed Use rates for the project are included in the Trip Generation Table attached as Table A.

Existing Use Rates*

Land Use (per unit): Daily: AM: PM:

Internal Trip Allowance: Yes _____ No X Percentage _____

Pass-by Trip Allowance: Yes _____ No X Percentage _____

Use	Size	Unit	AM Peak Hour		AM Total	PM Peak Hour		PM Total	Daily Trips
			In	Out		In	Out		
Warehouse	1,332.38	TSF	280	83	363	114	290	404	3,665
Existing/ Approved									
Difference									

* **Source:** Trips are based on rates from ITE Trip Generation Manual (10th Edition). Truck traffic was converted to PCEs based on truck mix percentages from SCAQMD Truck Trip Generation Study and the PCE values published in the San Bernardino CMP, 2016 Update – Appendix B. (Please See Attached Trip Generation table).

IV. Specific Project Issues to be Analyzed

- A. The focus of this traffic study will be on addressing the adequacy of site access and identifying specific near-term and future circulation improvements required in the study area to maintain acceptable peak hour and daily levels of service (LOS).
- B. The traffic study shall address the project traffic impacts at all study intersections listed in Section VI and provide appropriate mitigation measures if applicable. Peak-hour traffic signal warrants shall be evaluated for all intersections that are not currently signalized.
- C. Using Synchro software, the traffic study shall provide a Queuing Analysis

section to determine the 95th percentile queues and the minimum requirement of storage length for right and left-turn movements at all studied intersections based on forecasted E+P (V.C), Opening Year + Project (V.E) and GP Buildout (V.E if applicable) traffic volumes.

- D. Qualitative assessment of existing and planned non-motorized facilities (e.g., pedestrians, bike routes, trails, etc.) within the study area. The TIA will analyze and recommend trail crossing solutions on Eucalyptus Avenue and Encilia Avenue that connects the existing Class I trail to the new Class I trail along the west side of the project.
- E. Discussion of employee parking based on building area and anticipated employment forecasts.
- F. Discussion of truck access between SR-60 and the project site.
- G. The traffic study shall be updated with VMT analysis after the City has adopted VMT threshold and guidelines as required by SB 743.
- H. For any facilities impacted by the project that requires mitigation measures, the traffic study will identify the amount of impact by project generated traffic (in percentage) and determine the fair share calculations for each of the required mitigation measures.

V. Study of Horizon Years

- A. Existing
- B. Existing + Project
- C. Opening Year (2024) – Existing + 2% per year growth for 5 years (10.41%) + cumulative projects in the vicinity.
- D. Opening Year + Project (2024)
- E. General Plan Build-out
- F. General Plan Build-out + Project

*****Opening year should have five (5) year minimum horizon**

VI. Facilities to be Studied (See Figures 2 and 3 for Intersection/Roadway Segment Maps)

- A. Intersections
 - 1. Moreno Beach Dr/SR-60 WB Ramps
 - 2. Moreno Beach Dr/SR-60 EB Ramps
 - 3. Moreno Beach Dr/Eucalyptus Ave
 - 4. Auto Mall Dr/Eucalyptus Ave
 - 5. Dwy 1/Eucalyptus Ave
 - 6. Dwy 2-Essen Ln/Encilia Ave
 - 7. Dwy 3-Shubert St/Encilia Ave
 - 8. Dwy 4/Eucalyptus Ave
 - 9. Redlands Blvd/SR-60 WB Ramps
 - 10. Redlands Blvd/SR-60 EB Ramps

11. Redlands Blvd/Eucalyptus Ave
12. Redlands Blvd/Dwy 6
13. Redlands Blvd/Dwy 7
14. Redlands Blvd/Encilia Ave
15. Dwy 5/Encilia Ave

B. Roadway Segments

1. Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps
2. Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave
3. Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr
4. Eucalyptus Ave from Auto Mall Dr to Driveway 1
5. Eucalyptus Ave from Driveway 1 to Aldi PI
6. Eucalyptus Ave Aldi PI to Driveway 4
7. Eucalyptus Ave from Driveway 4 to Redlands Blvd
8. Encilia Ave from Essen Ln to Shubert St
9. Encilia Ave Shubert St to Redlands Blvd
10. Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps
11. Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave
12. Redlands Blvd from Eucalyptus Ave to Driveway 6
13. Redlands Blvd from Driveway 6 to Driveway 7
14. Redlands Blvd from Driveway 7 to Encilia Ave

VII. Deliverables

- A. Draft traffic impact study (2 copies + pdf file on a CD or USB drive)
- B. Final traffic impact study (4 copies + pdf file on a CD or USB drive)

All draft and final traffic impact studies shall be delivered with the \$3,118 review fee to the Permit Technician, Land Development Division, Moreno Valley City Hall, 14177 Frederick Street, Moreno Valley, CA 92552. Please contact the Land Development Division at 951-413-3110 prior to the delivery of the traffic study.

A signed copy of this Scoping Agreement must be included in the submitted draft and final traffic impact studies.

If you have any questions regarding this *Scoping Agreement*, please contact Eric Lewis at (951) 413-3140.

Recommended By:

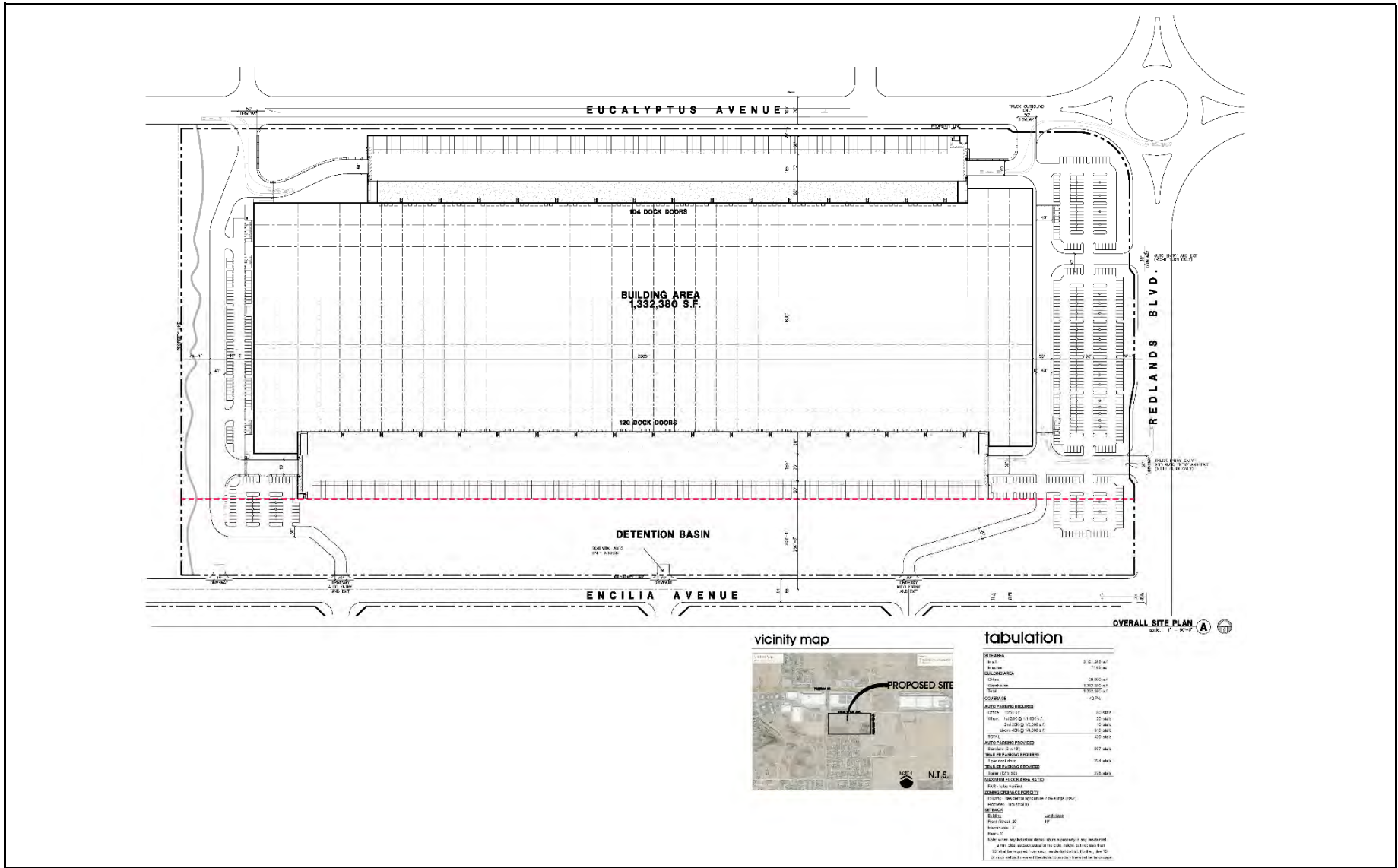


Sandipan Bhattacharjee, P.E., T.E., AICP
Translutions, Inc.

Approved By:



Eric Lewis, P.E., T.E.
City Traffic Engineer



Source: HPA Architecture (September 16, 2019)

FIGURE 1

Moreno Valley Trade Center
Site Plan



Table A - Project Trip Generation

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates ¹	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
PCE Inbound/Outbound Splits		77%	23%	100%	27%	73%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%) ²		61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor ³		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.477	0.024	0.105	0.032	0.086	0.118	1.077
2-Axle Trucks								
Recommended Mix (%) ²		6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor ³		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.013	0.004	0.016	0.005	0.013	0.018	0.168
3-Axle Trucks								
Recommended Mix (%) ²		8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor ³		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.023	0.007	0.029	0.009	0.024	0.033	0.301
4-Axle Trucks								
Recommended Mix (%) ²		22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor ³		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.090	0.027	0.117	0.035	0.096	0.131	1.200
Warehouse Net PCE Rate		0.602	0.062	0.268	0.081	0.219	0.300	2.747
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	1,332.38 TSF							
Passenger Cars		109	32	141	43	114	157	1,436
2-Axle Trucks		12	3	15	5	12	17	150
3-Axle Trucks		15	5	20	6	16	22	201
4+ Axle Trucks		41	12	53	17	42	59	534
All Trucks		68	20	88	28	70	98	885
Total Vehicles		245	52	229	71	184	255	2,321
Total Project Trip Generation (Passenger Car Equivalent Trips, By Vehicle Type)								
Passenger Cars		109	32	141	43	114	157	1,436
Truck PCE								
2-Axle Trucks		18	5	23	8	18	26	225
3-Axle Trucks		30	10	40	12	32	44	402
4+ Axle Trucks		123	36	159	51	126	177	1,602
Total Truck PCE		171	51	222	71	176	247	2,229
Total PCE		280	83	363	114	290	404	3,665

¹ Rates based on Land Use 150 "Warehousing" from Institute of Transportation Engineers (ITE) Trip Generation (10th Ed.).

² Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study.

³ Recommended PCE Factor per SBCTA Guidelines



FIGURE 2

Legend

- Project Location
- Study Area Intersections

Moreno Valley Trade Center
Study Area Intersections





FIGURE 3

Legend

-  Project Location
-  Study Area Roadway Segments

Moreno Valley Trade Center
Study Area Roadway Segments



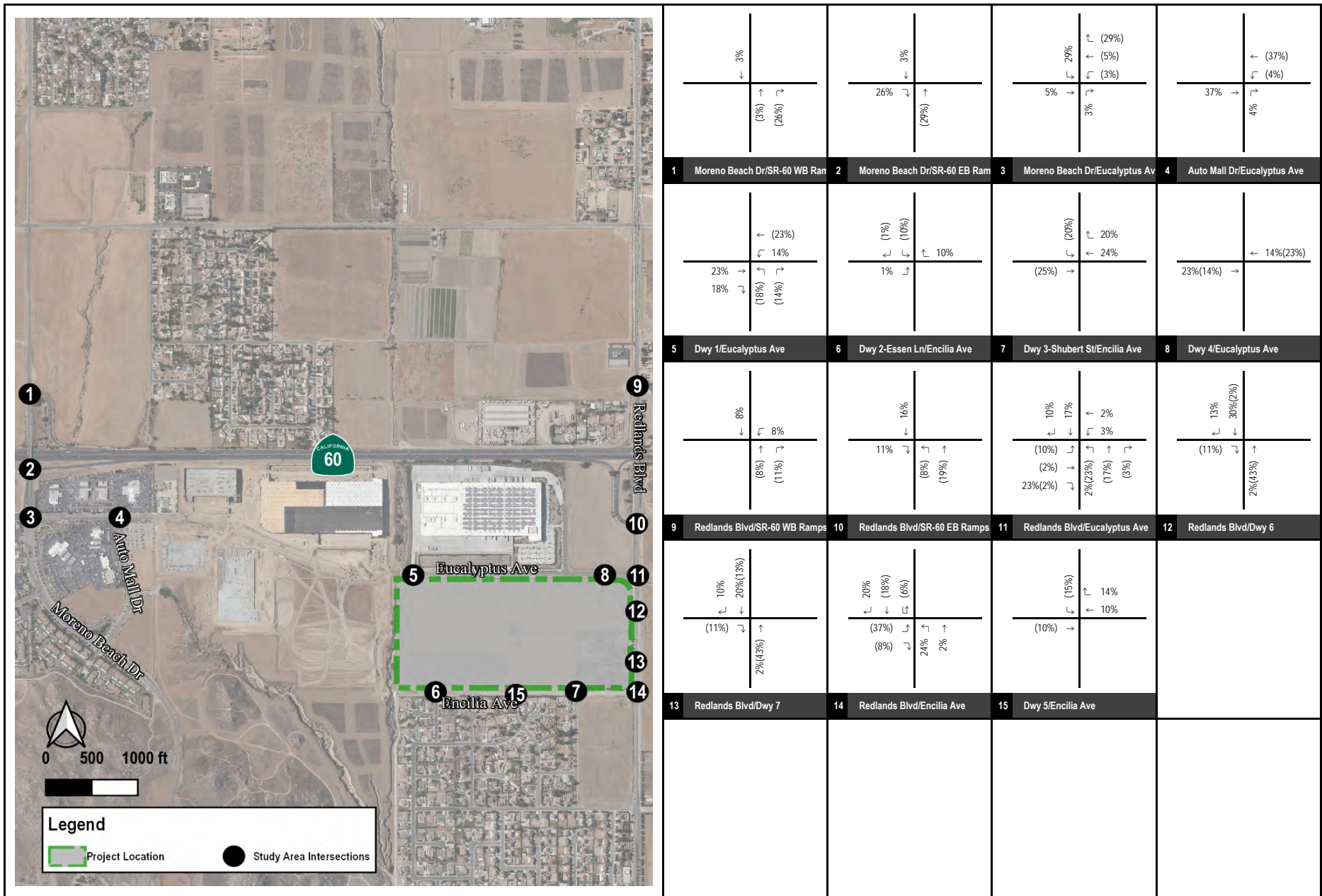


FIGURE 4

XX%(YY%) Inbound%(Outbound%) Distribution



Moreno Valley Trade Center
Project Trip Distribution (Autos)

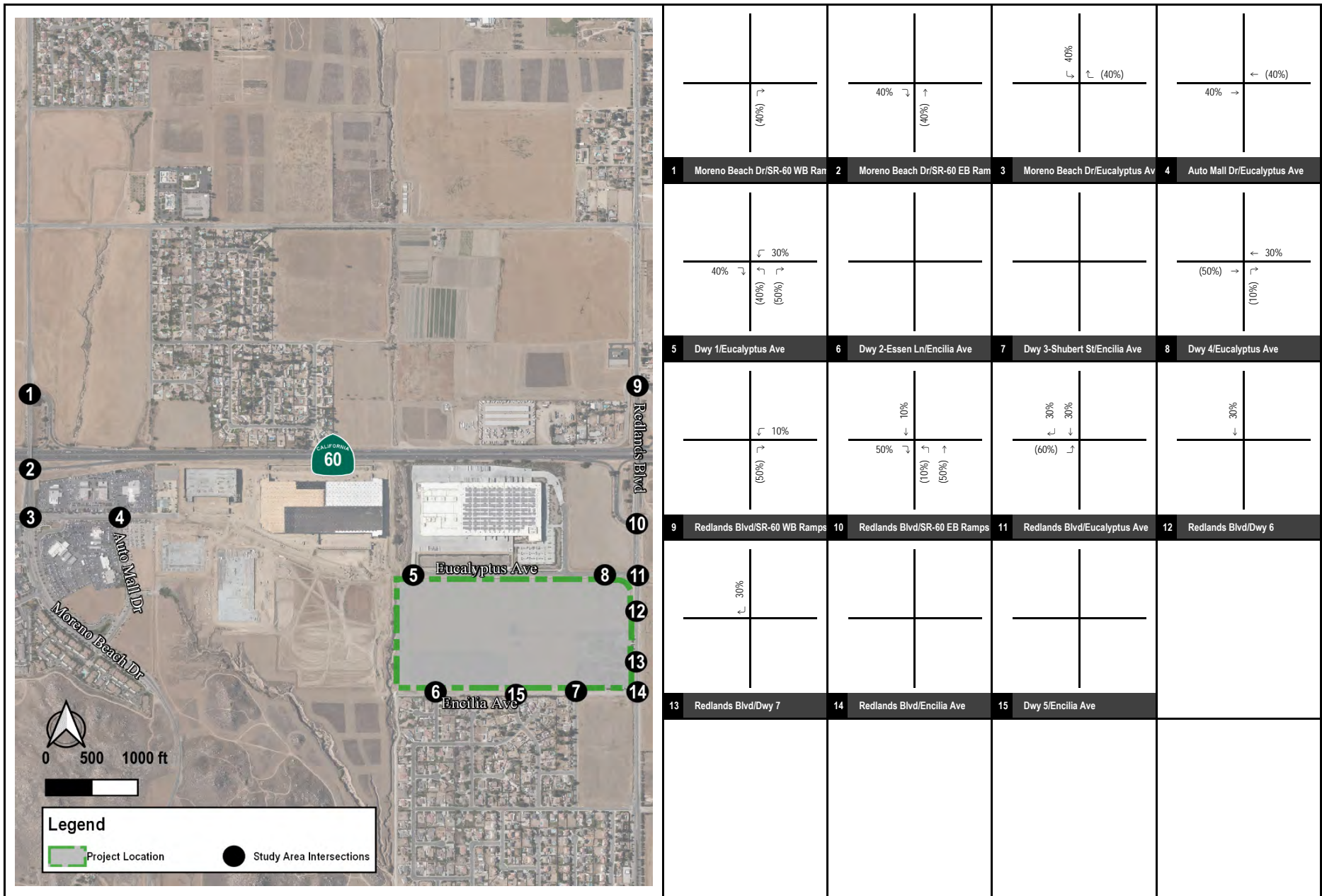


FIGURE 5

XX%(YY%) Inbound%(Outbound%) Distribution

Moreno Valley Trade Center
Project Trip Distribution (Trucks)



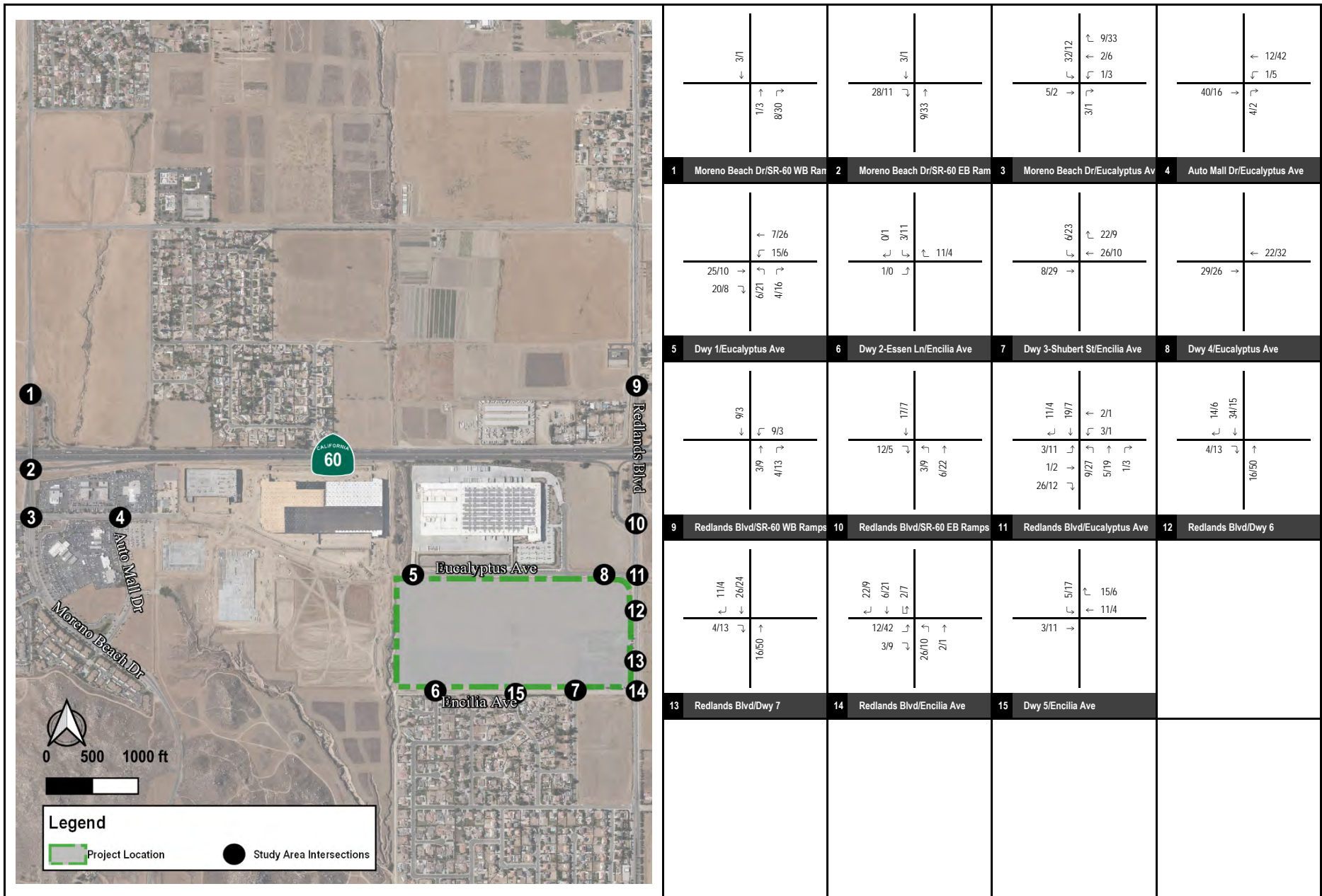


FIGURE 6

XX/YY AM/PM Peak Hour Trips



Moreno Valley Trade Center
Project Trip Assignment (Autos)

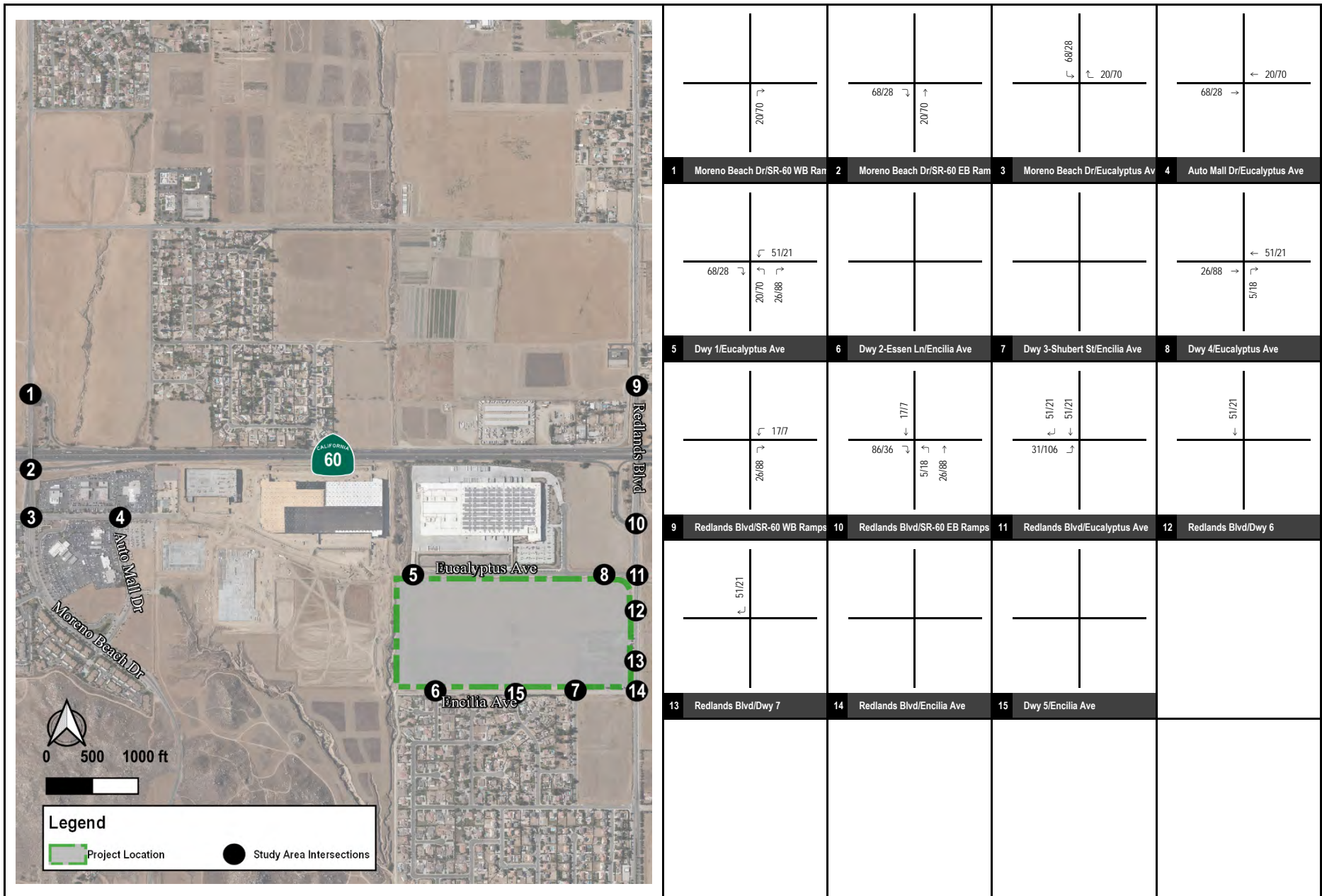


FIGURE 7

XX/YY AM/PM Peak Hour Trips



Moreno Valley Trade Center
Project Trip Assignment (Trucks)

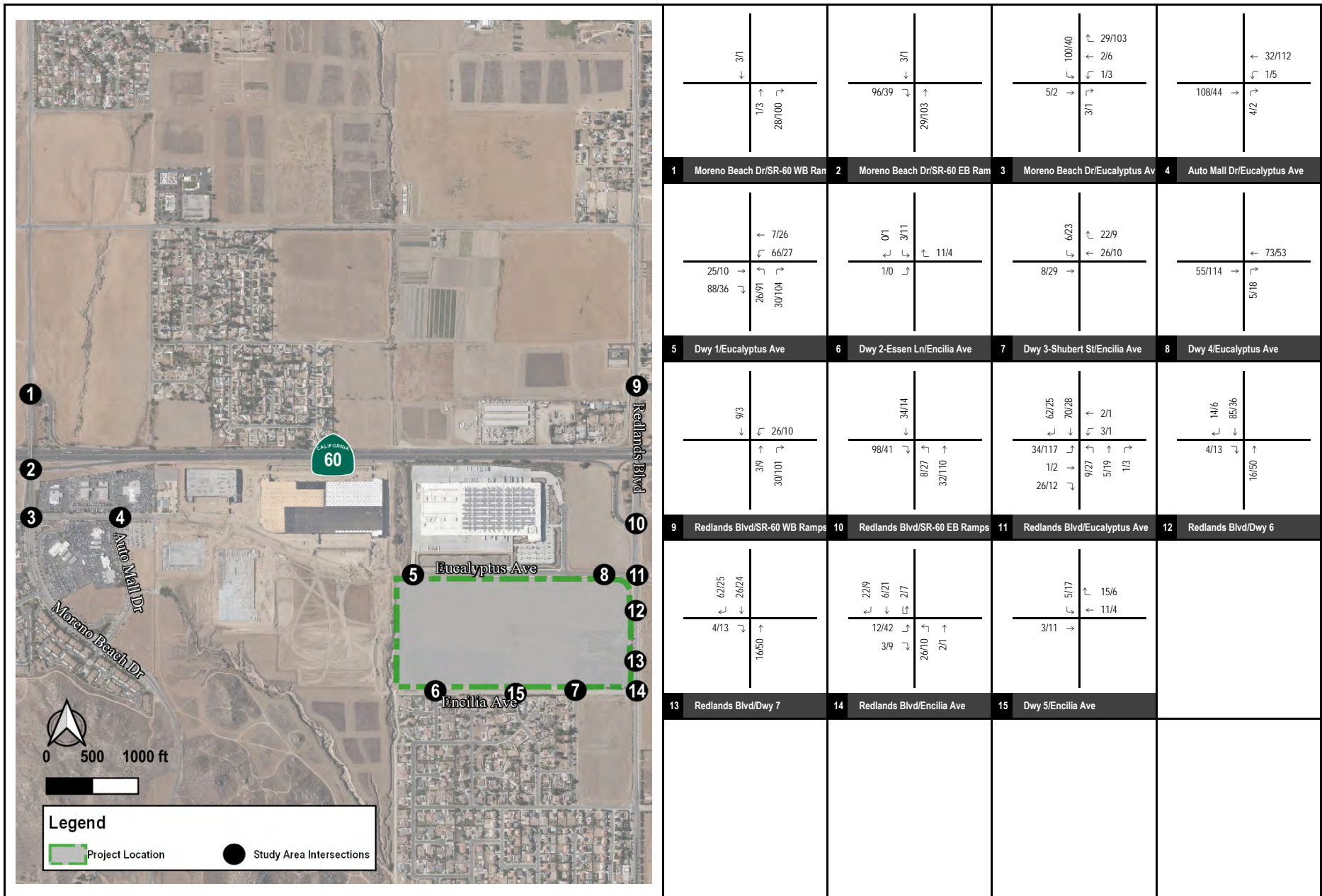


FIGURE 8

XX/YY AM/PM Peak Hour Trips



Moreno Valley Trade Center
Total Project Trip Assignment

APPENDIX B: TRAFFIC COUNTS

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

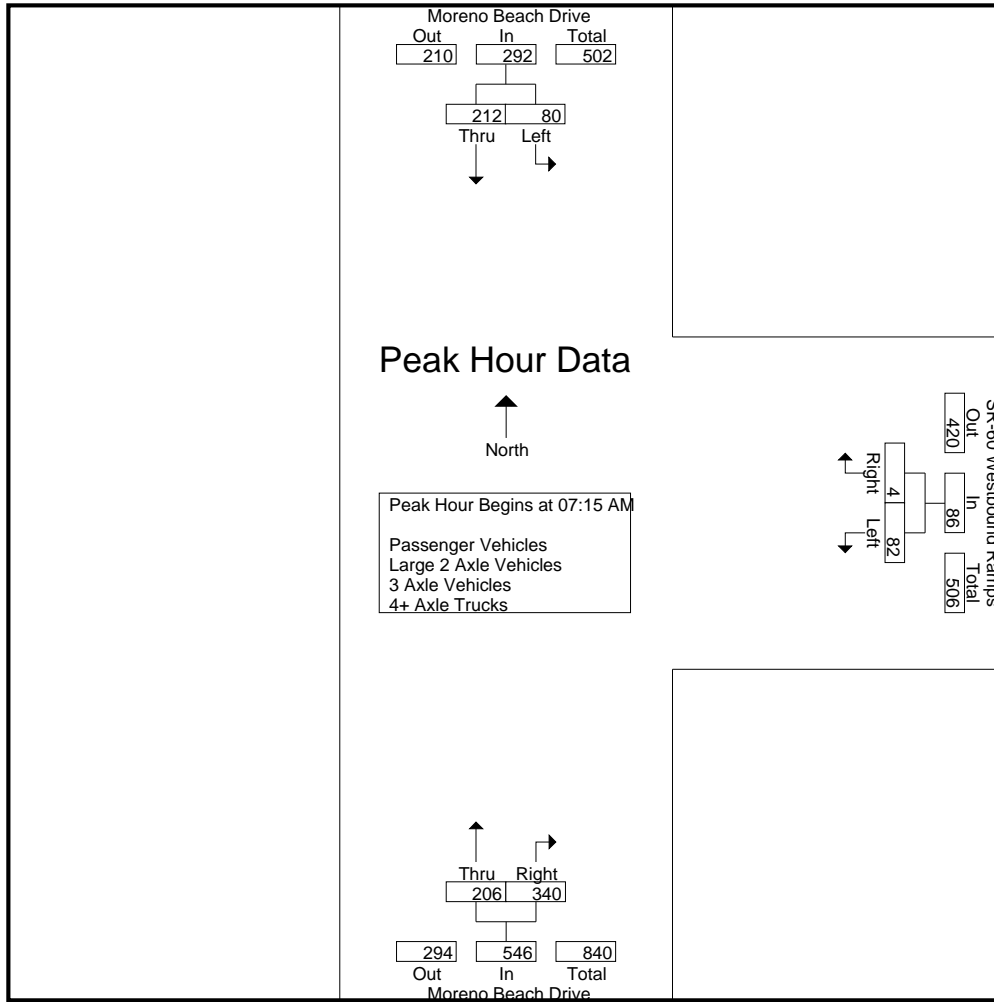
File Name : 08_MRV_Mo Bea_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	19	33	52	26	1	27	50	77	127	206
07:15 AM	13	34	47	19	1	20	40	80	120	187
07:30 AM	24	54	78	25	1	26	57	78	135	239
07:45 AM	14	68	82	24	1	25	74	84	158	265
Total	70	189	259	94	4	98	221	319	540	897
08:00 AM	29	56	85	14	1	15	35	98	133	233
08:15 AM	11	33	44	23	0	23	30	70	100	167
08:30 AM	17	40	57	19	1	20	22	76	98	175
08:45 AM	13	30	43	16	1	17	43	82	125	185
Total	70	159	229	72	3	75	130	326	456	760
Grand Total	140	348	488	166	7	173	351	645	996	1657
Apprch %	28.7	71.3		96	4		35.2	64.8		
Total %	8.4	21	29.5	10	0.4	10.4	21.2	38.9	60.1	
Passenger Vehicles	137	342	479	161	7	168	345	617	962	1609
% Passenger Vehicles	97.9	98.3	98.2	97	100	97.1	98.3	95.7	96.6	97.1
Large 2 Axle Vehicles	3	5	8	3	0	3	6	12	18	29
% Large 2 Axle Vehicles	2.1	1.4	1.6	1.8	0	1.7	1.7	1.9	1.8	1.8
3 Axle Vehicles	0	1	1	1	0	1	0	2	2	4
% 3 Axle Vehicles	0	0.3	0.2	0.6	0	0.6	0	0.3	0.2	0.2
4+ Axle Trucks	0	0	0	1	0	1	0	14	14	15
% 4+ Axle Trucks	0	0	0	0.6	0	0.6	0	2.2	1.4	0.9

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	13	34	47	19	1	20	40	80	120	187
07:30 AM	24	54	78	25	1	26	57	78	135	239
07:45 AM	14	68	82	24	1	25	74	84	158	265
08:00 AM	29	56	85	14	1	15	35	98	133	233
Total Volume	80	212	292	82	4	86	206	340	546	924
% App. Total	27.4	72.6		95.3	4.7		37.7	62.3		
PHF	.690	.779	.859	.820	1.00	.827	.696	.867	.864	.872

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



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			07:00 AM			07:15 AM		
+0 mins.	13	34	47	26	1	27	40	80	120
+15 mins.	24	54	78	19	1	20	57	78	135
+30 mins.	14	68	82	25	1	26	74	84	158
+45 mins.	29	56	85	24	1	25	35	98	133
Total Volume	80	212	292	94	4	98	206	340	546
% App. Total	27.4	72.6		95.9	4.1		37.7	62.3	
PHF	.690	.779	.859	.904	1.000	.907	.696	.867	.864

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

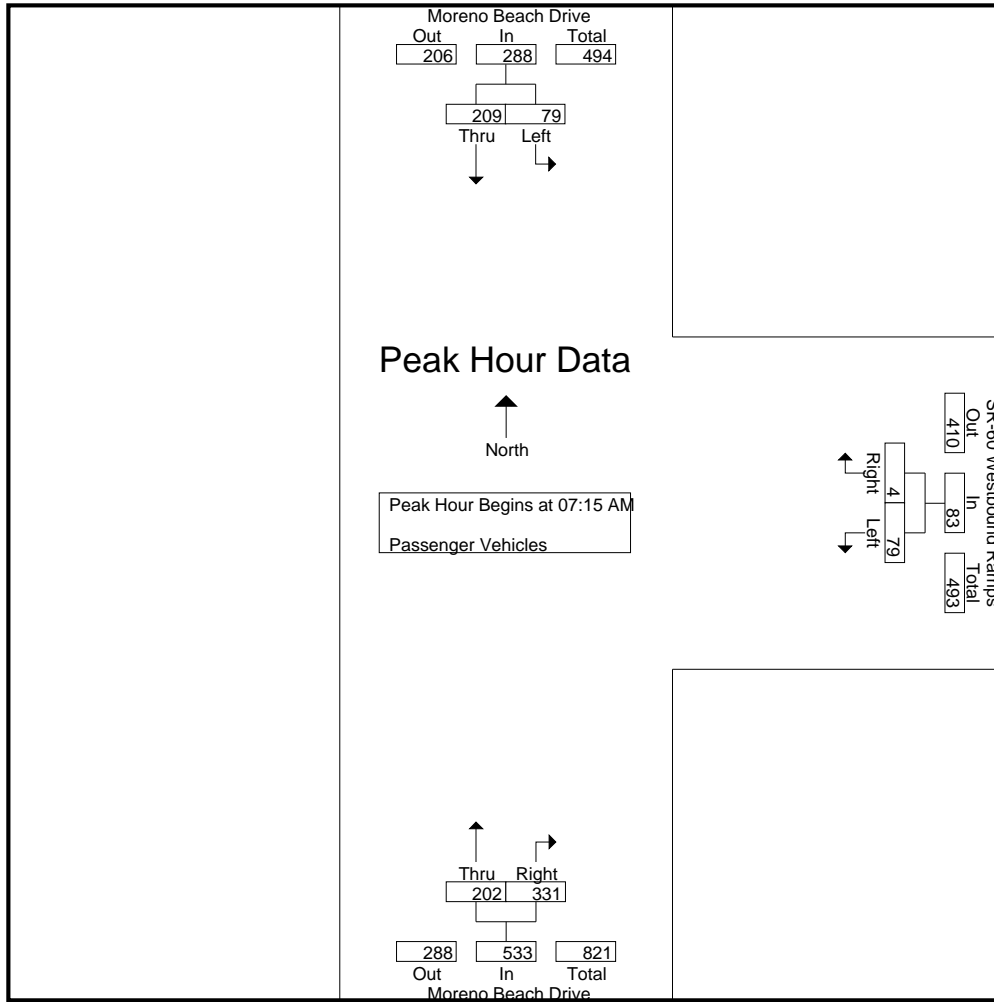
Groups Printed- Passenger Vehicles

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	19	32	51	25	1	26	49	73	122	199
07:15 AM	13	34	47	18	1	19	38	76	114	180
07:30 AM	23	51	74	24	1	25	55	77	132	231
07:45 AM	14	68	82	23	1	24	74	82	156	262
Total	69	185	254	90	4	94	216	308	524	872
08:00 AM	29	56	85	14	1	15	35	96	131	231
08:15 AM	11	31	42	23	0	23	29	66	95	160
08:30 AM	15	40	55	18	1	19	22	69	91	165
08:45 AM	13	30	43	16	1	17	43	78	121	181
Total	68	157	225	71	3	74	129	309	438	737
Grand Total	137	342	479	161	7	168	345	617	962	1609
Apprch %	28.6	71.4		95.8	4.2		35.9	64.1		
Total %	8.5	21.3	29.8	10	0.4	10.4	21.4	38.3	59.8	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	13	34	47	18	1	19	38	76	114	180
07:30 AM	23	51	74	24	1	25	55	77	132	231
07:45 AM	14	68	82	23	1	24	74	82	156	262
08:00 AM	29	56	85	14	1	15	35	96	131	231
Total Volume	79	209	288	79	4	83	202	331	533	904
% App. Total	27.4	72.6		95.2	4.8		37.9	62.1		
PHF	.681	.768	.847	.823	1.00	.830	.682	.862	.854	.863

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



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		
+0 mins.	13	34	47	18	1	19	38	76	114
+15 mins.	23	51	74	24	1	25	55	77	132
+30 mins.	14	68	82	23	1	24	74	82	156
+45 mins.	29	56	85	14	1	15	35	96	131
Total Volume	79	209	288	79	4	83	202	331	533
% App. Total	27.4	72.6		95.2	4.8		37.9	62.1	
PHF	.681	.768	.847	.823	1.000	.830	.682	.862	.854

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

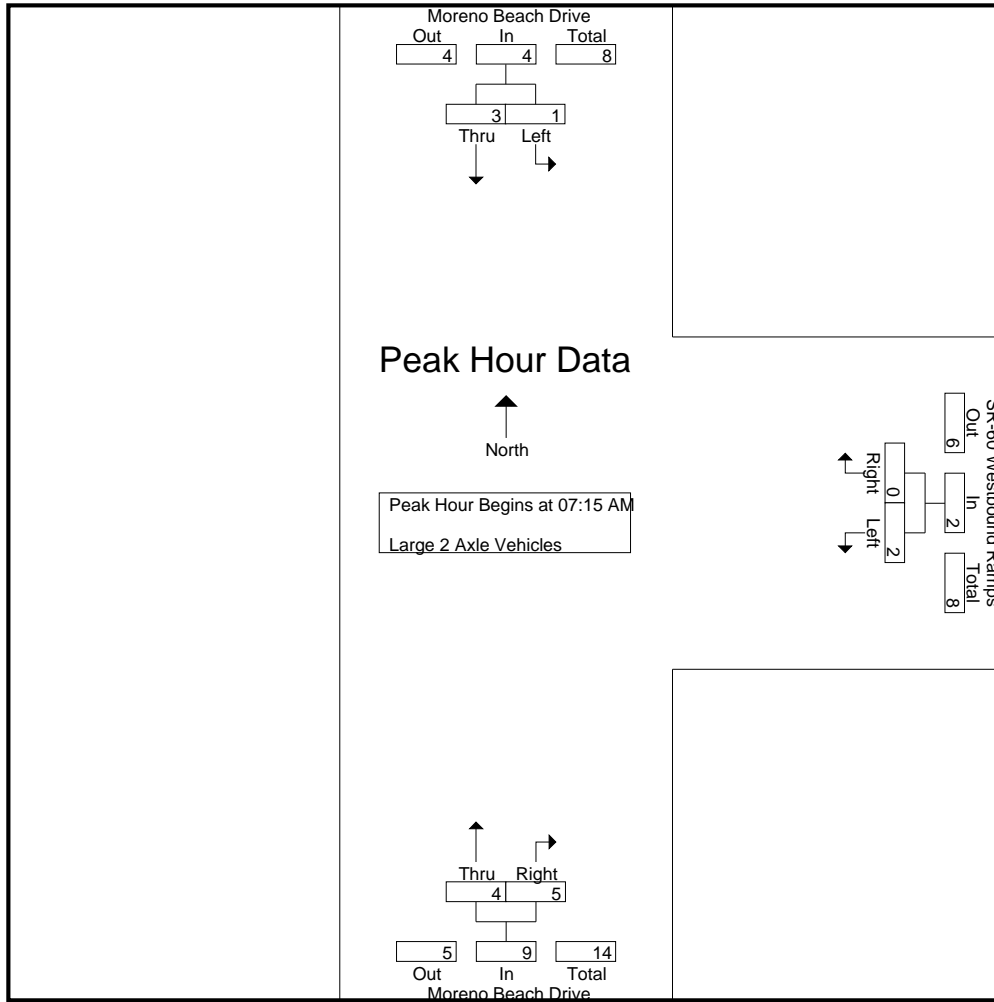
Groups Printed- Large 2 Axle Vehicles

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	1	1	0	0	0	1	0	1	2
07:15 AM	0	0	0	0	0	0	2	3	5	5
07:30 AM	1	3	4	1	0	1	2	0	2	7
07:45 AM	0	0	0	1	0	1	0	1	1	2
Total	1	4	5	2	0	2	5	4	9	16
08:00 AM	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	1	1	0	0	0	1	3	4	5
08:30 AM	2	0	2	1	0	1	0	3	3	6
08:45 AM	0	0	0	0	0	0	0	1	1	1
Total	2	1	3	1	0	1	1	8	9	13
Grand Total	3	5	8	3	0	3	6	12	18	29
Apprch %	37.5	62.5		100	0		33.3	66.7		
Total %	10.3	17.2	27.6	10.3	0	10.3	20.7	41.4	62.1	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	0	0	0	0	0	2	3	5	5
07:30 AM	1	3	4	1	0	1	2	0	2	7
07:45 AM	0	0	0	1	0	1	0	1	1	2
08:00 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	1	3	4	2	0	2	4	5	9	15
% App. Total	25	75		100	0		44.4	55.6		
PHF	.250	.250	.250	.500	.000	.500	.500	.417	.450	.536

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



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		
+0 mins.	0	0	0	0	0	0	2	3	5
+15 mins.	1	3	4	1	0	1	2	0	2
+30 mins.	0	0	0	1	0	1	0	1	1
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	1	3	4	2	0	2	4	5	9
% App. Total	25	75		100	0		44.4	55.6	
PHF	.250	.250	.250	.500	.000	.500	.500	.417	.450

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

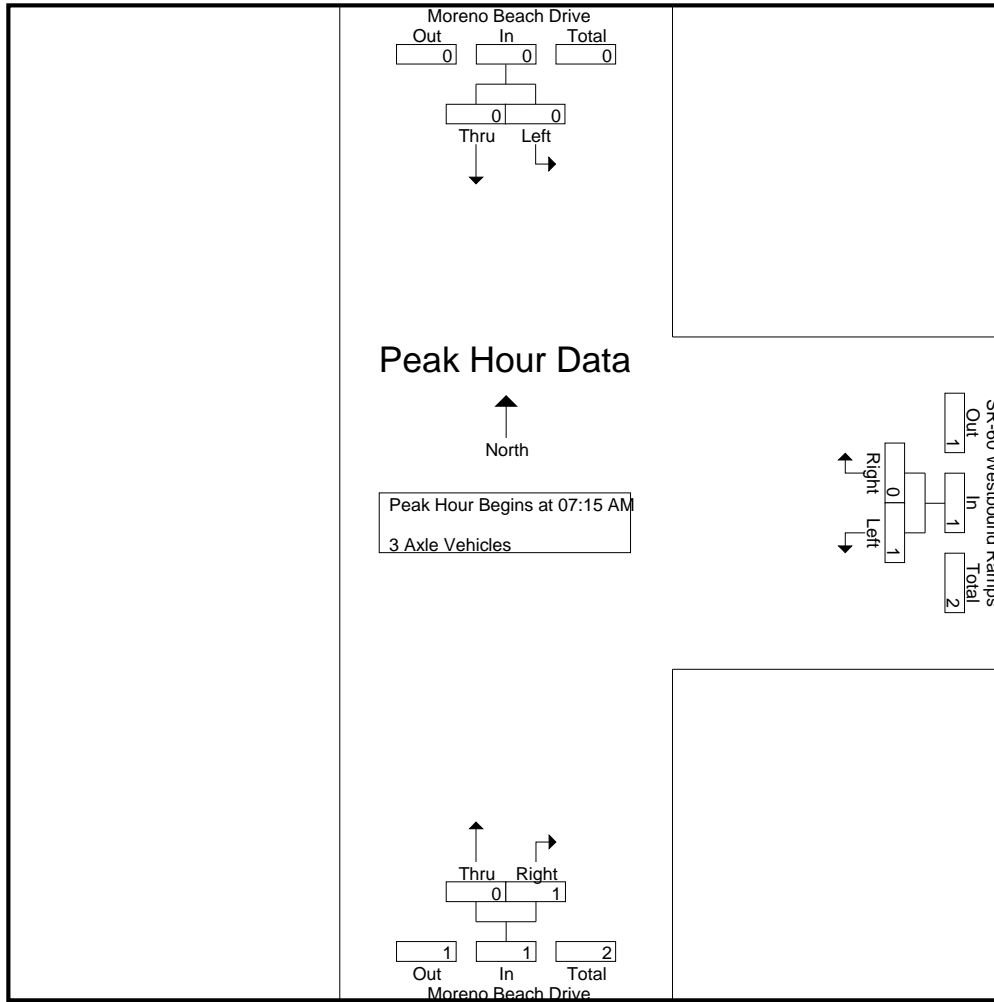
Groups Printed- 3 Axle Vehicles

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	1	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	1	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	0	1	1	2
Grand Total	0	1	1	1	0	1	0	2	2	4
Apprch %	0	100		100	0		0	100		
Total %	0	25	25	25	0	25	0	50	50	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	1	1	2
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.250	.250	.500

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



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		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	1	1
% App. Total	0	0	0	100	0	0	0	100	0
PHF	.000	.000	.000	.250	.000	.250	.000	.250	.250

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

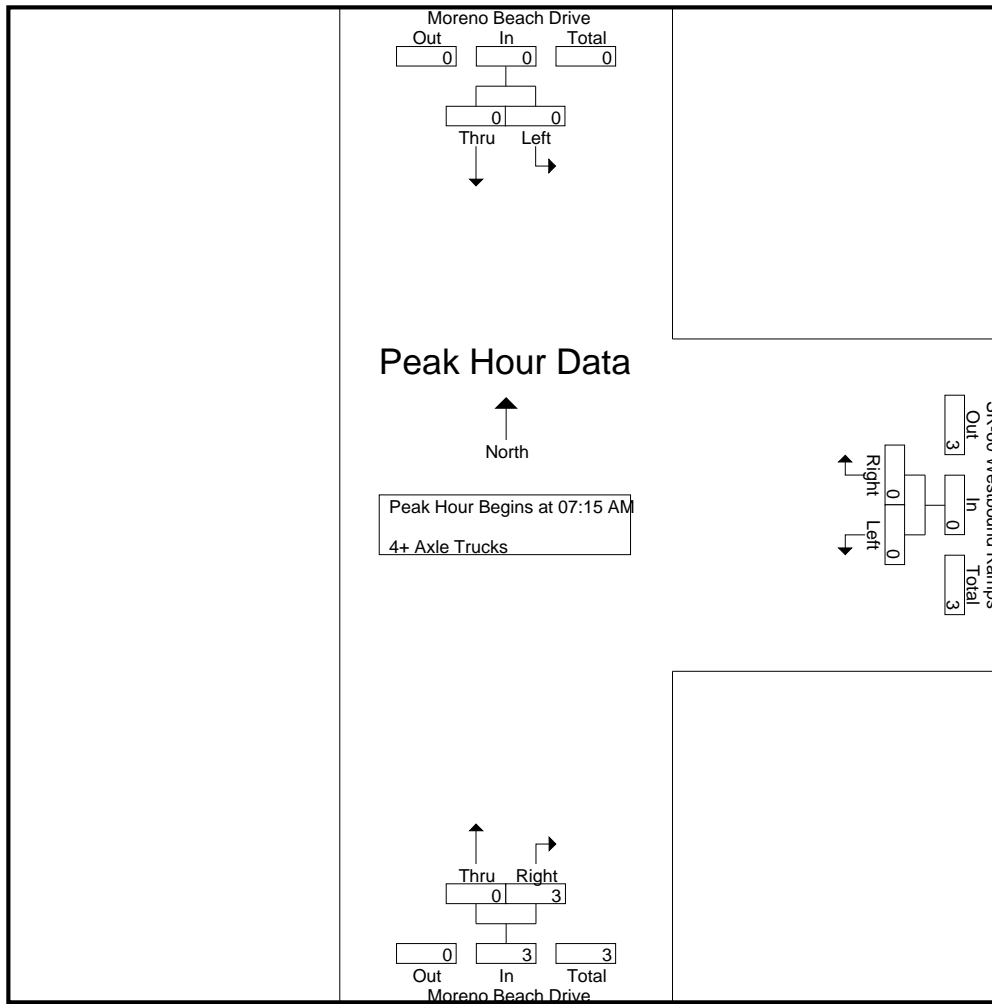
Groups Printed- 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	1	0	1	0	4	4	5
07:15 AM	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	1	0	1	0	6	6	7
08:00 AM	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	0	0	1	1	1
08:30 AM	0	0	0	0	0	0	0	3	3	3
08:45 AM	0	0	0	0	0	0	0	3	3	3
Total	0	0	0	0	0	0	0	8	8	8
Grand Total	0	0	0	1	0	1	0	14	14	15
Apprch %	0	0		100	0		0	100		
Total %	0	0		6.7	0	6.7	0	93.3	93.3	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	1	1
08:00 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	3	3	3
% App. Total	0	0		0	0		0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.750	.750	.750

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



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		
+0 mins.	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	3	3
% App. Total	0	0	0	0	0	0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.750	.750

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

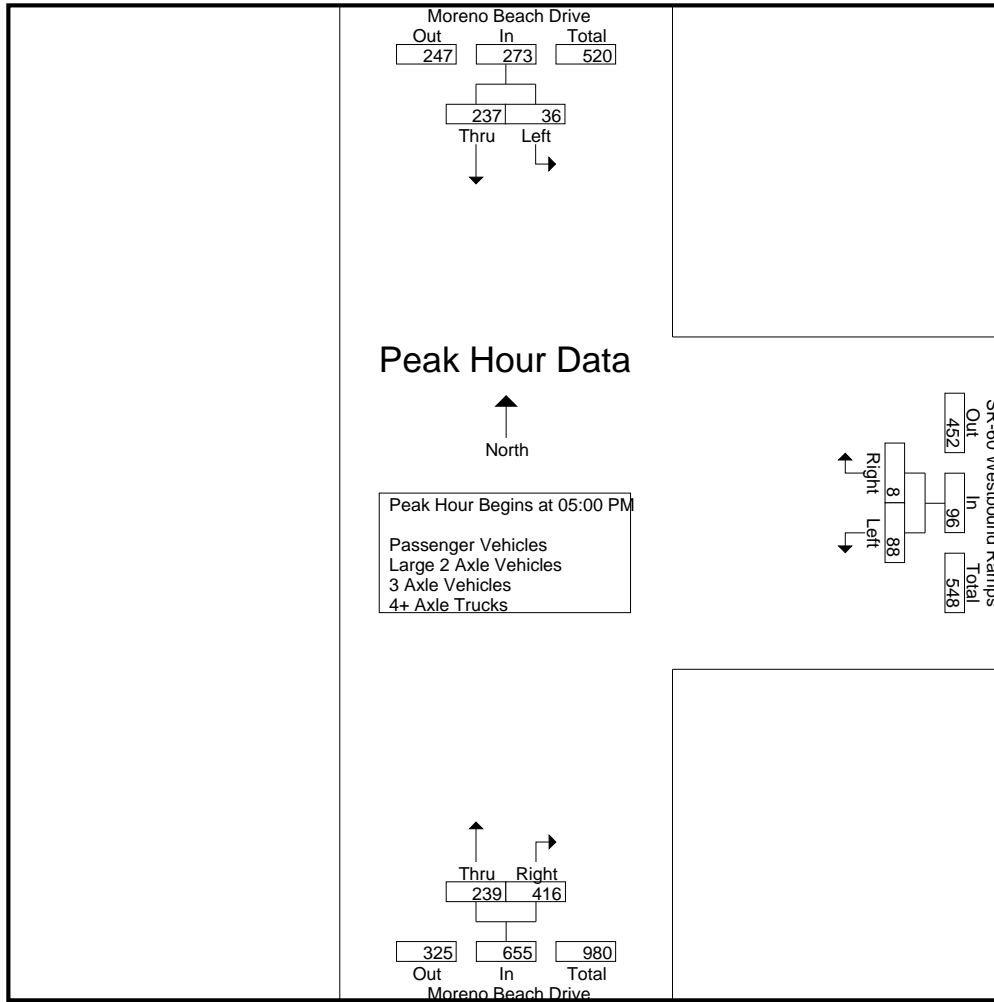
File Name : 08_MRV_Mo Bea_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	15	42	57	18	5	23	55	94	149	229
04:15 PM	11	55	66	24	0	24	61	58	119	209
04:30 PM	11	56	67	23	1	24	62	96	158	249
04:45 PM	10	43	53	26	2	28	50	76	126	207
Total	47	196	243	91	8	99	228	324	552	894
05:00 PM	6	77	83	22	1	23	53	109	162	268
05:15 PM	9	45	54	20	2	22	58	101	159	235
05:30 PM	8	58	66	27	0	27	64	117	181	274
05:45 PM	13	57	70	19	5	24	64	89	153	247
Total	36	237	273	88	8	96	239	416	655	1024
Grand Total	83	433	516	179	16	195	467	740	1207	1918
Apprch %	16.1	83.9		91.8	8.2		38.7	61.3		
Total %	4.3	22.6	26.9	9.3	0.8	10.2	24.3	38.6	62.9	
Passenger Vehicles	83	430	513	171	16	187	461	720	1181	1881
% Passenger Vehicles	100	99.3	99.4	95.5	100	95.9	98.7	97.3	97.8	98.1
Large 2 Axle Vehicles	0	3	3	3	0	3	6	8	14	20
% Large 2 Axle Vehicles	0	0.7	0.6	1.7	0	1.5	1.3	1.1	1.2	1
3 Axle Vehicles	0	0	0	3	0	3	0	4	4	7
% 3 Axle Vehicles	0	0	0	1.7	0	1.5	0	0.5	0.3	0.4
4+ Axle Trucks	0	0	0	2	0	2	0	8	8	10
% 4+ Axle Trucks	0	0	0	1.1	0	1	0	1.1	0.7	0.5

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:00 PM	6	77	83	22	1	23	53	109	162	268
05:15 PM	9	45	54	20	2	22	58	101	159	235
05:30 PM	8	58	66	27	0	27	64	117	181	274
05:45 PM	13	57	70	19	5	24	64	89	153	247
Total Volume	36	237	273	88	8	96	239	416	655	1024
% App. Total	13.2	86.8		91.7	8.3		36.5	63.5		
PHF	.692	.769	.822	.815	.400	.889	.934	.889	.905	.934

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 05:00 PM



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			05:00 PM		
+0 mins.	6	77	83	26	2	28	53	109	162
+15 mins.	9	45	54	22	1	23	58	101	159
+30 mins.	8	58	66	20	2	22	64	117	181
+45 mins.	13	57	70	27	0	27	64	89	153
Total Volume	36	237	273	95	5	100	239	416	655
% App. Total	13.2	86.8		95	5		36.5	63.5	
PHF	.692	.769	.822	.880	.625	.893	.934	.889	.905

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

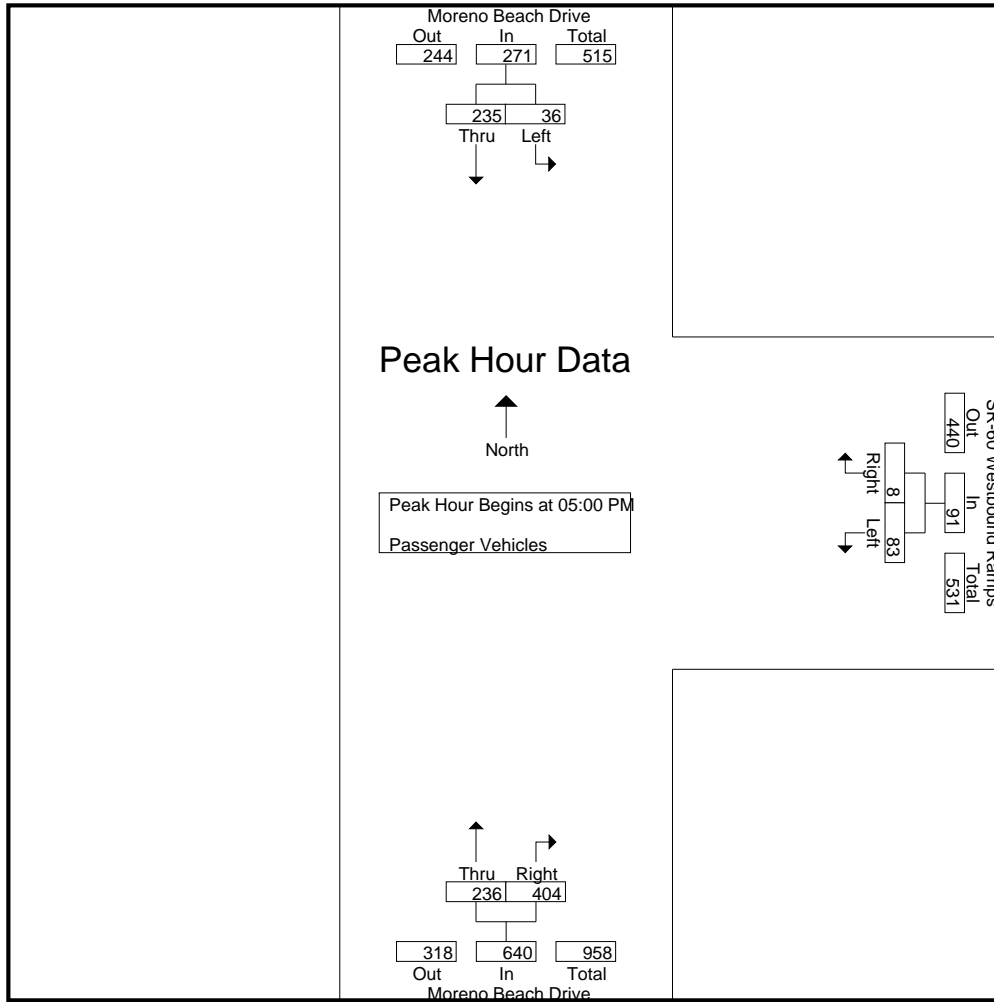
Groups Printed- Passenger Vehicles

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	15	42	57	18	5	23	54	91	145	225
04:15 PM	11	54	65	24	0	24	60	58	118	207
04:30 PM	11	56	67	21	1	22	61	96	157	246
04:45 PM	10	43	53	25	2	27	50	71	121	201
Total	47	195	242	88	8	96	225	316	541	879
05:00 PM	6	77	83	18	1	19	51	105	156	258
05:15 PM	9	45	54	20	2	22	58	97	155	231
05:30 PM	8	57	65	27	0	27	64	115	179	271
05:45 PM	13	56	69	18	5	23	63	87	150	242
Total	36	235	271	83	8	91	236	404	640	1002
Grand Total	83	430	513	171	16	187	461	720	1181	1881
Apprch %	16.2	83.8		91.4	8.6		39	61		
Total %	4.4	22.9	27.3	9.1	0.9	9.9	24.5	38.3	62.8	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:00 PM	6	77	83	18	1	19	51	105	156	258
05:15 PM	9	45	54	20	2	22	58	97	155	231
05:30 PM	8	57	65	27	0	27	64	115	179	271
05:45 PM	13	56	69	18	5	23	63	87	150	242
Total Volume	36	235	271	83	8	91	236	404	640	1002
% App. Total	13.3	86.7		91.2	8.8		36.9	63.1		
PHF	.692	.763	.816	.769	.400	.843	.922	.878	.894	.924

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	6	77	83	18	1	19	51	105	156
+15 mins.	9	45	54	20	2	22	58	97	155
+30 mins.	8	57	65	27	0	27	64	115	179
+45 mins.	13	56	69	18	5	23	63	87	150
Total Volume	36	235	271	83	8	91	236	404	640
% App. Total	13.3	86.7		91.2	8.8		36.9	63.1	
PHF	.692	.763	.816	.769	.400	.843	.922	.878	.894

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

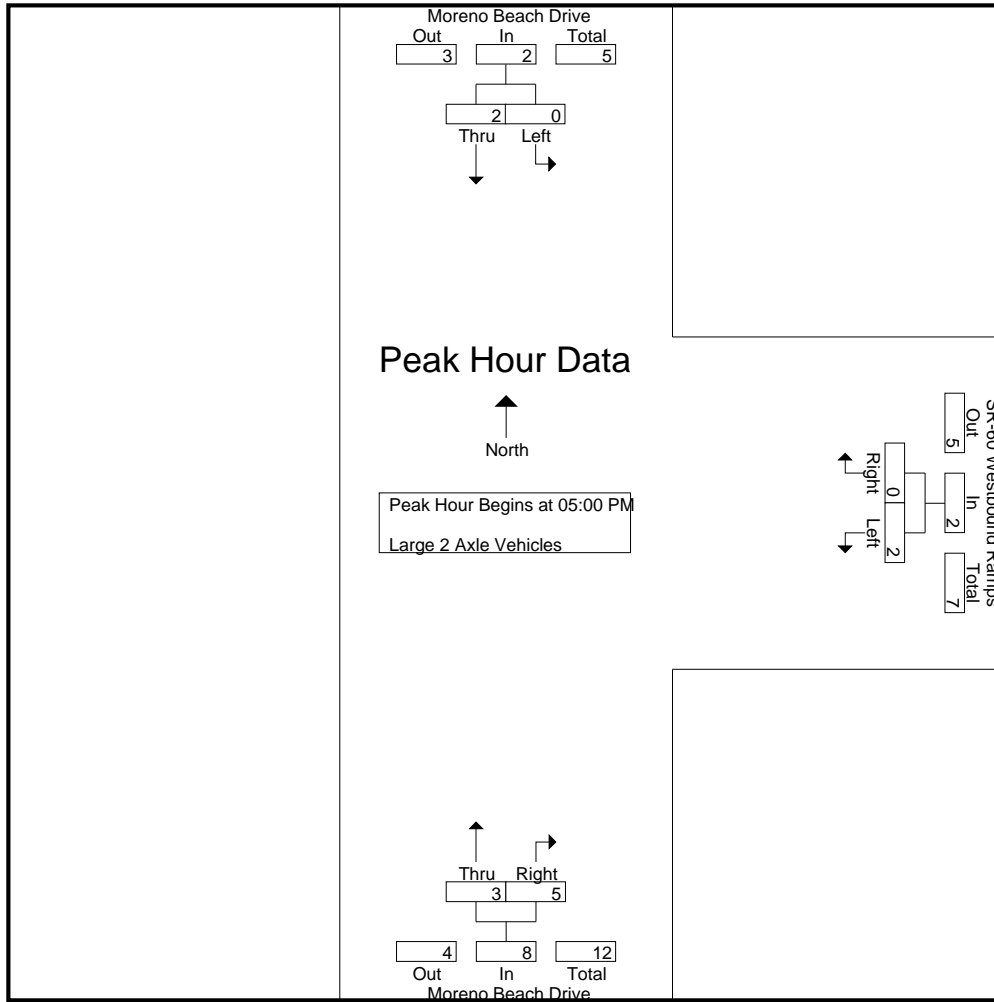
Groups Printed- Large 2 Axle Vehicles

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	1	1	2	2
04:15 PM	0	1	1	0	0	0	1	0	1	2
04:30 PM	0	0	0	1	0	1	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	2	2	2
Total	0	1	1	1	0	1	3	3	6	8
05:00 PM	0	0	0	1	0	1	2	2	4	5
05:15 PM	0	0	0	0	0	0	0	2	2	2
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	1	1	1	0	1	1	1	2	4
Total	0	2	2	2	0	2	3	5	8	12
Grand Total	0	3	3	3	0	3	6	8	14	20
Apprch %	0	100		100	0		42.9	57.1		
Total %	0	15	15	15	0	15	30	40	70	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:00 PM	0	0	0	1	0	1	2	2	4	5
05:15 PM	0	0	0	0	0	0	0	2	2	2
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	1	1	1	0	1	1	1	2	4
Total Volume	0	2	2	2	0	2	3	5	8	12
% App. Total	0	100		100	0		37.5	62.5		
PHF	.000	.500	.500	.500	.000	.500	.375	.625	.500	.600

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	1	0	1	2	2	4
+15 mins.	0	0	0	0	0	0	0	2	2
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	1	1	1	0	1	1	1	2
Total Volume	0	2	2	2	0	2	3	5	8
% App. Total	0	100		100	0		37.5	62.5	
PHF	.000	.500	.500	.500	.000	.500	.375	.625	.500

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

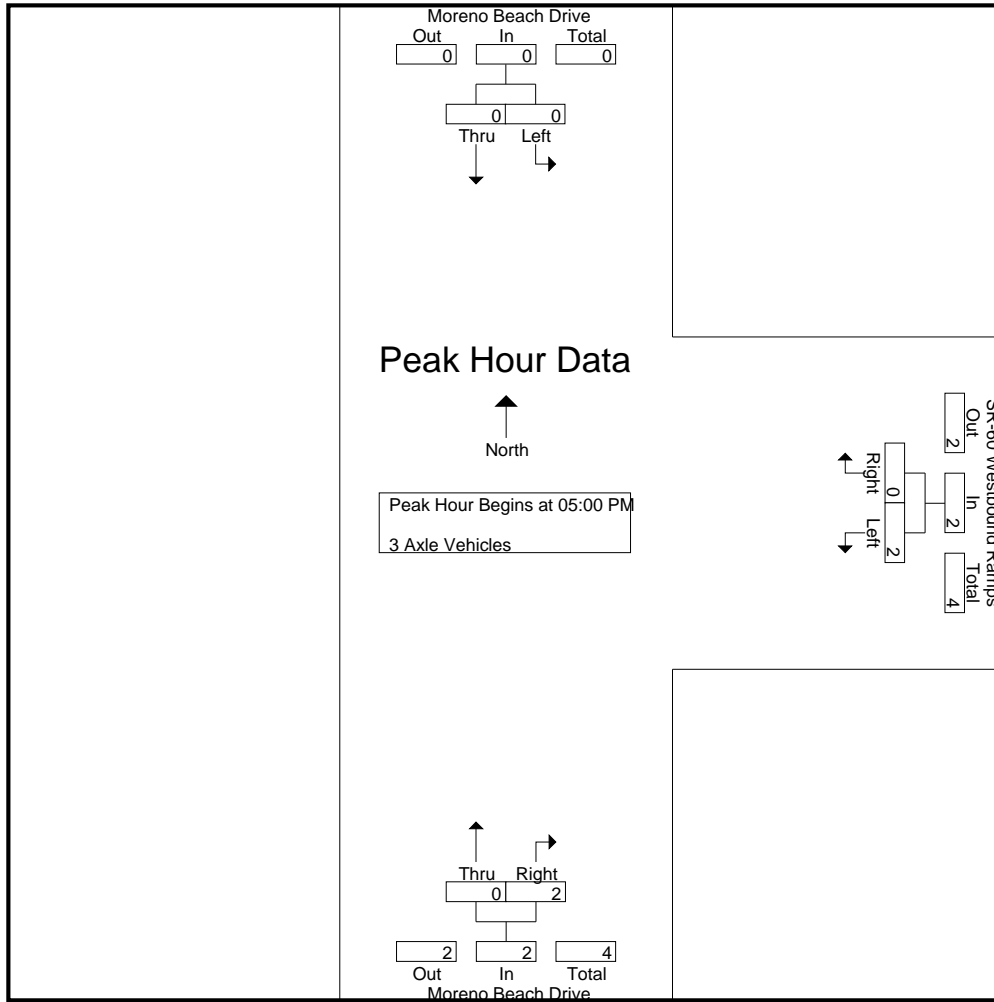
Groups Printed- 3 Axle Vehicles

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	1	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	1	0	1	0	2	2	3
05:00 PM	0	0	0	2	0	2	0	1	1	3
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	2	2	4
Grand Total	0	0	0	3	0	3	0	4	4	7
Apprch %	0	0		100	0		0	100		
Total %	0	0		42.9	0	42.9	0	57.1	57.1	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:00 PM	0	0	0	2	0	2	0	1	1	3
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	2	0	2	0	2	2	4
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.500	.500	.333

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	2	0	2	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	2	0	2	0	2	2
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.250	.000	.250	.000	.500	.500

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Westbound Ramps
 Weather: Clear

File Name : 08_MRV_Mo Bea_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

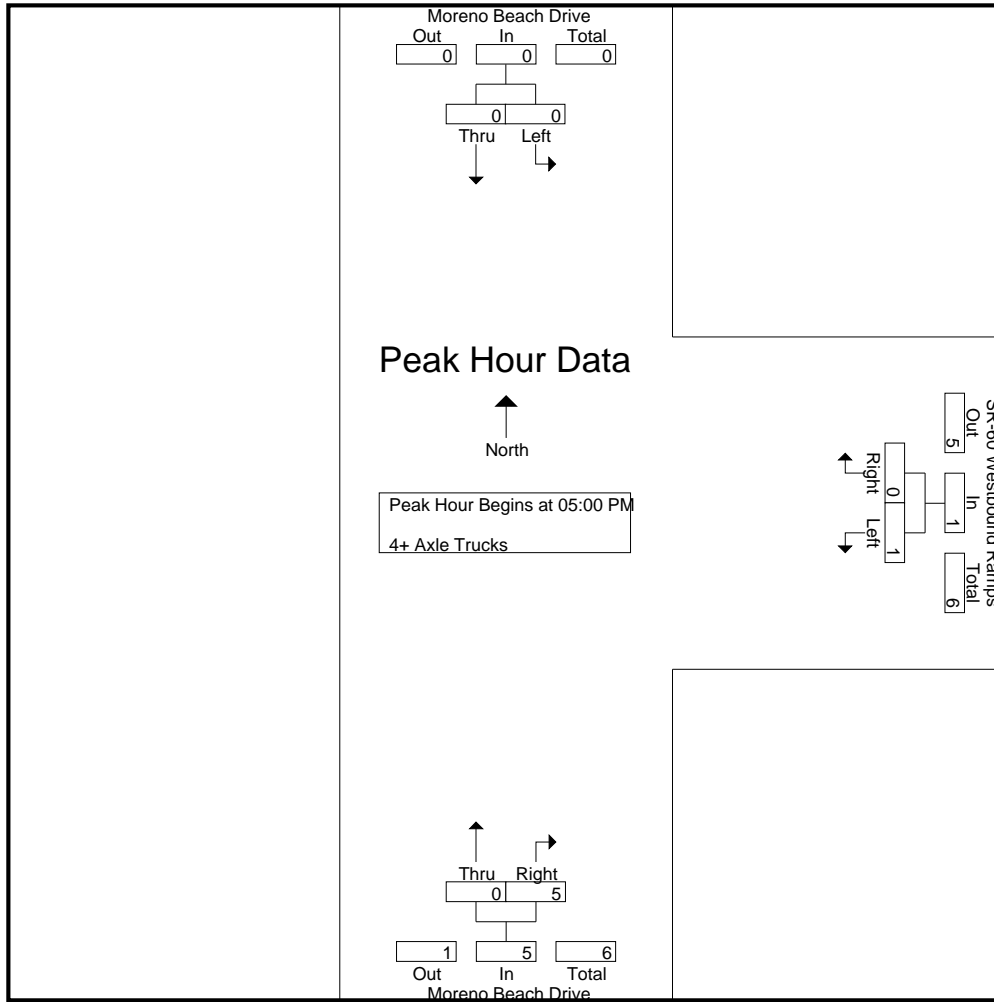
Groups Printed- 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	2	2	2
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	1	0	1	0	1	1	2
Total	0	0	0	1	0	1	0	3	3	4
05:00 PM	0	0	0	1	0	1	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	2	2	2
05:30 PM	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	1	0	1	0	5	5	6
Grand Total	0	0	0	2	0	2	0	8	8	10
Apprch %	0	0		100	0		0	100		
Total %	0	0		20	0	20	0	80	80	

Start Time	Moreno Beach Drive Southbound			SR-60 Westbound Ramps Westbound			Moreno Beach Drive Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:00 PM	0	0	0	1	0	1	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	2	2	2
05:30 PM	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	1	0	1	0	5	5	6
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.625	.625	.750

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	1	0	1	0	1	1
+15 mins.	0	0	0	0	0	0	0	2	2
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	1	0	1	0	5	5
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.250	.000	.250	.000	.625	.625

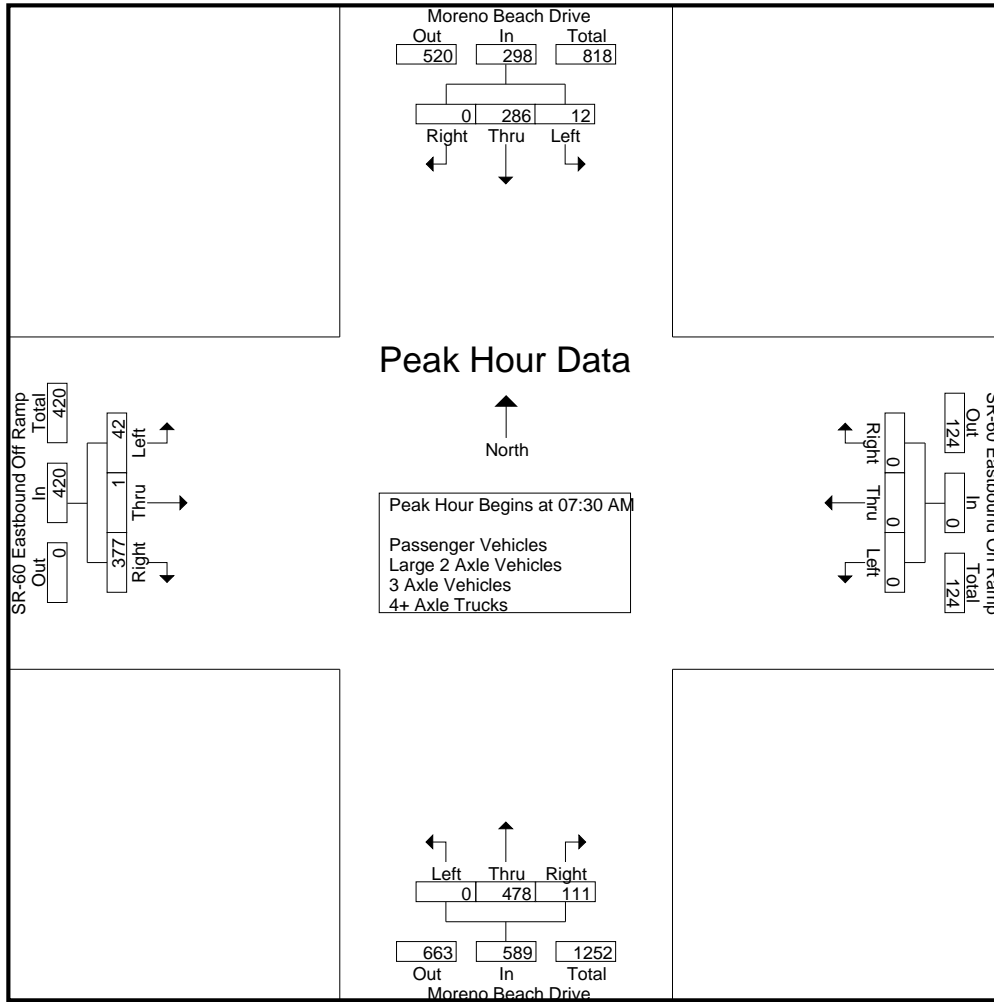
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	4	52	0	56	0	0	0	0	0	113	33	146	15	0	66	81	283
07:15 AM	3	54	0	57	0	0	0	0	0	113	26	139	3	0	62	65	261
07:30 AM	5	66	0	71	0	0	0	0	0	124	33	157	11	0	72	83	311
07:45 AM	3	93	0	96	0	0	0	0	0	139	27	166	20	0	113	133	395
Total	15	265	0	280	0	0	0	0	0	489	119	608	49	0	313	362	1250
08:00 AM	3	73	0	76	0	0	0	0	0	118	21	139	5	1	104	110	325
08:15 AM	1	54	0	55	0	0	0	0	0	97	30	127	6	0	88	94	276
08:30 AM	0	58	0	58	0	0	0	0	0	96	21	117	5	0	55	60	235
08:45 AM	0	48	0	48	0	0	0	0	0	114	19	133	11	3	83	97	278
Total	4	233	0	237	0	0	0	0	0	425	91	516	27	4	330	361	1114
Grand Total	19	498	0	517	0	0	0	0	0	914	210	1124	76	4	643	723	2364
Apprch %	3.7	96.3	0		0	0	0		0	81.3	18.7		10.5	0.6	88.9		
Total %	0.8	21.1	0	21.9	0	0	0	0	0	38.7	8.9	47.5	3.2	0.2	27.2	30.6	
Passenger Vehicles	18	488	0	506	0	0	0	0	0	879	195	1074	75	2	609	686	2266
% Passenger Vehicles	94.7	98	0	97.9	0	0	0	0	0	96.2	92.9	95.6	98.7	50	94.7	94.9	95.9
Large 2 Axle Vehicles	1	7	0	8	0	0	0	0	0	21	11	32	1	2	21	24	64
% Large 2 Axle Vehicles	5.3	1.4	0	1.5	0	0	0	0	0	2.3	5.2	2.8	1.3	50	3.3	3.3	2.7
3 Axle Vehicles	0	2	0	2	0	0	0	0	0	2	0	2	0	0	1	1	5
% 3 Axle Vehicles	0	0.4	0	0.4	0	0	0	0	0	0.2	0	0.2	0	0	0.2	0.1	0.2
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	12	4	16	0	0	12	12	29
% 4+ Axle Trucks	0	0.2	0	0.2	0	0	0	0	0	1.3	1.9	1.4	0	0	1.9	1.7	1.2

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	66	0	71	0	0	0	0	0	124	33	157	11	0	72	83	311
07:45 AM	3	93	0	96	0	0	0	0	0	139	27	166	20	0	113	133	395
08:00 AM	3	73	0	76	0	0	0	0	0	118	21	139	5	1	104	110	325
08:15 AM	1	54	0	55	0	0	0	0	0	97	30	127	6	0	88	94	276
Total Volume	12	286	0	298	0	0	0	0	0	478	111	589	42	1	377	420	1307
% App. Total	4	96	0		0	0	0		0	81.2	18.8		10	0.2	89.8		
PHF	.600	.769	.000	.776	.000	.000	.000	.000	.000	.860	.841	.887	.525	.250	.834	.789	.827



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				07:00 AM				07:00 AM				07:30 AM			
+0 mins.	3	54	0	57	0	0	0	0	0	113	33	146	11	0	72	83
+15 mins.	5	66	0	71	0	0	0	0	0	113	26	139	20	0	113	133
+30 mins.	3	93	0	96	0	0	0	0	0	124	33	157	5	1	104	110
+45 mins.	3	73	0	76	0	0	0	0	0	139	27	166	6	0	88	94
Total Volume	14	286	0	300	0	0	0	0	0	489	119	608	42	1	377	420
% App. Total	4.7	95.3	0		0	0	0		0	80.4	19.6		10	0.2	89.8	
PHF	.700	.769	.000	.781	.000	.000	.000	.000	.000	.879	.902	.916	.525	.250	.834	.789

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

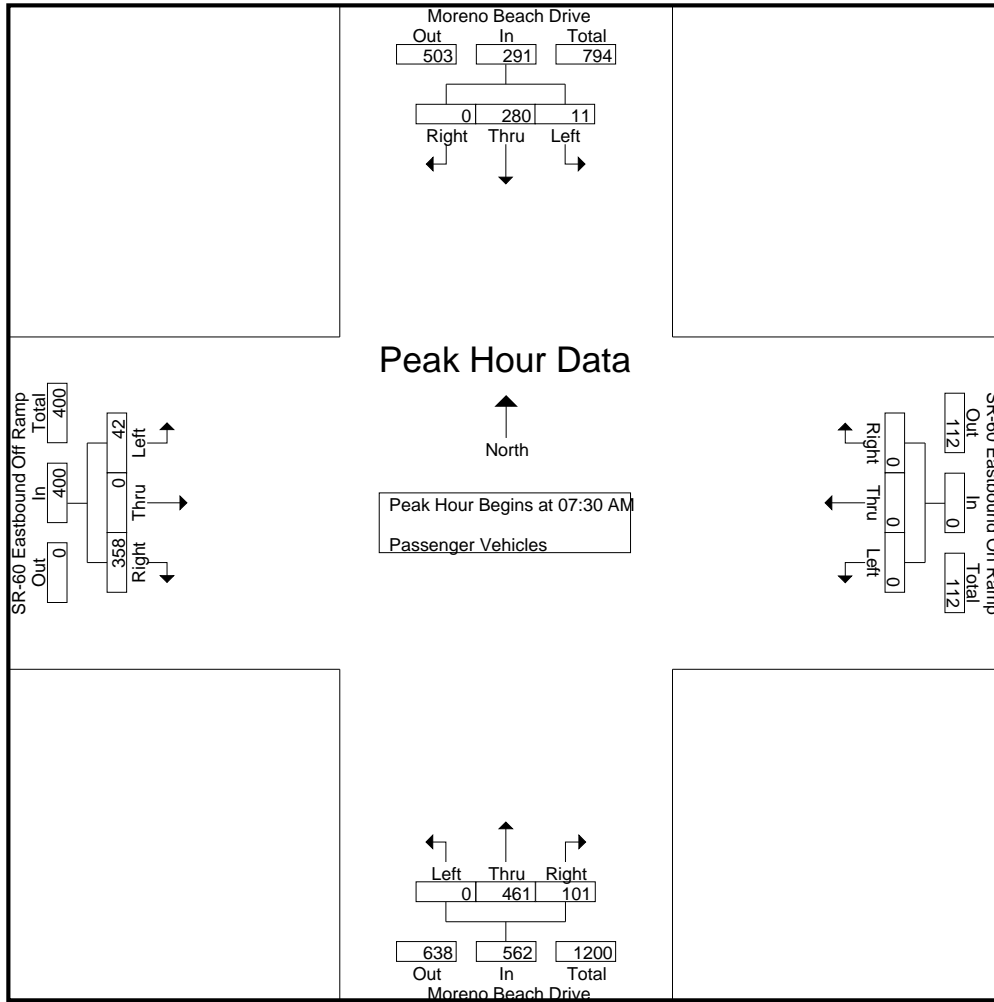
Groups Printed- Passenger Vehicles

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	4	50	0	54	0	0	0	0	0	110	31	141	14	0	61	75	270
07:15 AM	3	53	0	56	0	0	0	0	0	108	25	133	3	0	57	60	249
07:30 AM	5	63	0	68	0	0	0	0	0	121	30	151	11	0	68	79	298
07:45 AM	2	92	0	94	0	0	0	0	0	135	25	160	20	0	109	129	383
Total	14	258	0	272	0	0	0	0	0	474	111	585	48	0	295	343	1200
08:00 AM	3	73	0	76	0	0	0	0	0	115	19	134	5	0	96	101	311
08:15 AM	1	52	0	53	0	0	0	0	0	90	27	117	6	0	85	91	261
08:30 AM	0	57	0	57	0	0	0	0	0	90	20	110	5	0	54	59	226
08:45 AM	0	48	0	48	0	0	0	0	0	110	18	128	11	2	79	92	268
Total	4	230	0	234	0	0	0	0	0	405	84	489	27	2	314	343	1066
Grand Total	18	488	0	506	0	0	0	0	0	879	195	1074	75	2	609	686	2266
Apprch %	3.6	96.4	0		0	0	0		0	81.8	18.2		10.9	0.3	88.8		
Total %	0.8	21.5	0	22.3	0	0	0	0	0	38.8	8.6	47.4	3.3	0.1	26.9	30.3	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	63	0	68	0	0	0	0	0	121	30	151	11	0	68	79	298
07:45 AM	2	92	0	94	0	0	0	0	0	135	25	160	20	0	109	129	383
08:00 AM	3	73	0	76	0	0	0	0	0	115	19	134	5	0	96	101	311
08:15 AM	1	52	0	53	0	0	0	0	0	90	27	117	6	0	85	91	261
Total Volume	11	280	0	291	0	0	0	0	0	461	101	562	42	0	358	400	1253
% App. Total	3.8	96.2	0		0	0	0		0	82	18		10.5	0	89.5		
PHF	.550	.761	.000	.774	.000	.000	.000	.000	.000	.854	.842	.878	.525	.000	.821	.775	.818

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	5	63	0	68	0	0	0	0	0	121	30	151	11	0	68	79
+15 mins.	2	92	0	94	0	0	0	0	0	135	25	160	20	0	109	129
+30 mins.	3	73	0	76	0	0	0	0	0	115	19	134	5	0	96	101
+45 mins.	1	52	0	53	0	0	0	0	0	90	27	117	6	0	85	91
Total Volume	11	280	0	291	0	0	0	0	0	461	101	562	42	0	358	400
% App. Total	3.8	96.2	0		0	0	0		0	82	18		10.5	0	89.5	
PHF	.550	.761	.000	.774	.000	.000	.000	.000	.000	.854	.842	.878	.525	.000	.821	.775

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

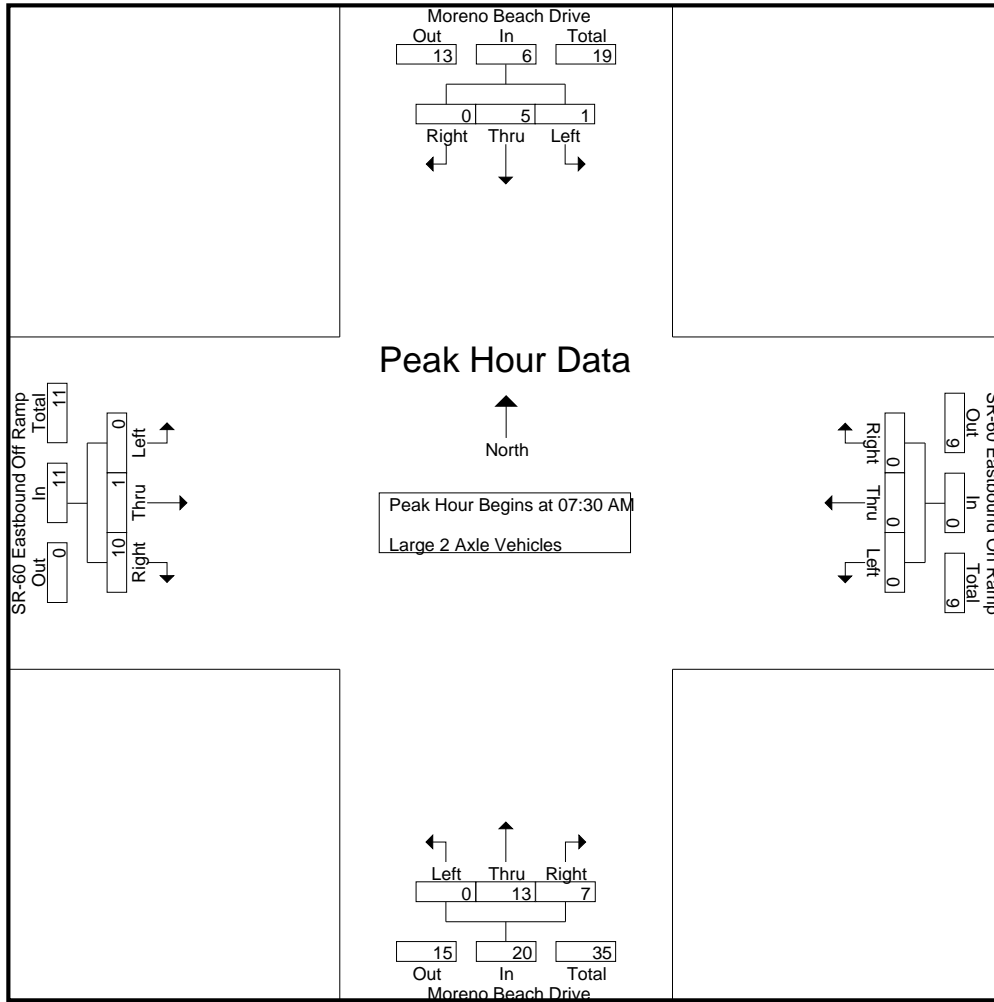
Groups Printed- Large 2 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	1	0	1	0	0	0	0	0	0	2	2	1	0	4	5	8
07:15 AM	0	0	0	0	0	0	0	0	0	5	1	6	0	0	3	3	9
07:30 AM	0	3	0	3	0	0	0	0	0	2	1	3	0	0	2	2	8
07:45 AM	1	1	0	2	0	0	0	0	0	2	2	4	0	0	3	3	9
Total	1	5	0	6	0	0	0	0	0	9	6	15	1	0	12	13	34
08:00 AM	0	0	0	0	0	0	0	0	0	3	1	4	0	1	4	5	9
08:15 AM	0	1	0	1	0	0	0	0	0	6	3	9	0	0	1	1	11
08:30 AM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	1	1	4
08:45 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	1	3	4	6
Total	0	2	0	2	0	0	0	0	0	12	5	17	0	2	9	11	30
Grand Total	1	7	0	8	0	0	0	0	0	21	11	32	1	2	21	24	64
Apprch %	12.5	87.5	0		0	0	0		0	65.6	34.4		4.2	8.3	87.5		
Total %	1.6	10.9	0	12.5	0	0	0	0	0	32.8	17.2	50	1.6	3.1	32.8	37.5	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	3	0	3	0	0	0	0	0	2	1	3	0	0	2	2	8
07:45 AM	1	1	0	2	0	0	0	0	0	2	2	4	0	0	3	3	9
08:00 AM	0	0	0	0	0	0	0	0	0	3	1	4	0	1	4	5	9
08:15 AM	0	1	0	1	0	0	0	0	0	6	3	9	0	0	1	1	11
Total Volume	1	5	0	6	0	0	0	0	0	13	7	20	0	1	10	11	37
% App. Total	16.7	83.3	0		0	0	0		0	65	35		0	9.1	90.9		
PHF	.250	.417	.000	.500	.000	.000	.000	.000	.000	.542	.583	.556	.000	.250	.625	.550	.841

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	3	0	3	0	0	0	0	0	2	1	3	0	0	2	2
+15 mins.	1	1	0	2	0	0	0	0	0	2	2	4	0	0	3	3
+30 mins.	0	0	0	0	0	0	0	0	0	3	1	4	0	1	4	5
+45 mins.	0	1	0	1	0	0	0	0	0	6	3	9	0	0	1	1
Total Volume	1	5	0	6	0	0	0	0	0	13	7	20	0	1	10	11
% App. Total	16.7	83.3	0		0	0	0		0	65	35		0	9.1	90.9	
PHF	.250	.417	.000	.500	.000	.000	.000	.000	.000	.542	.583	.556	.000	.250	.625	.550

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

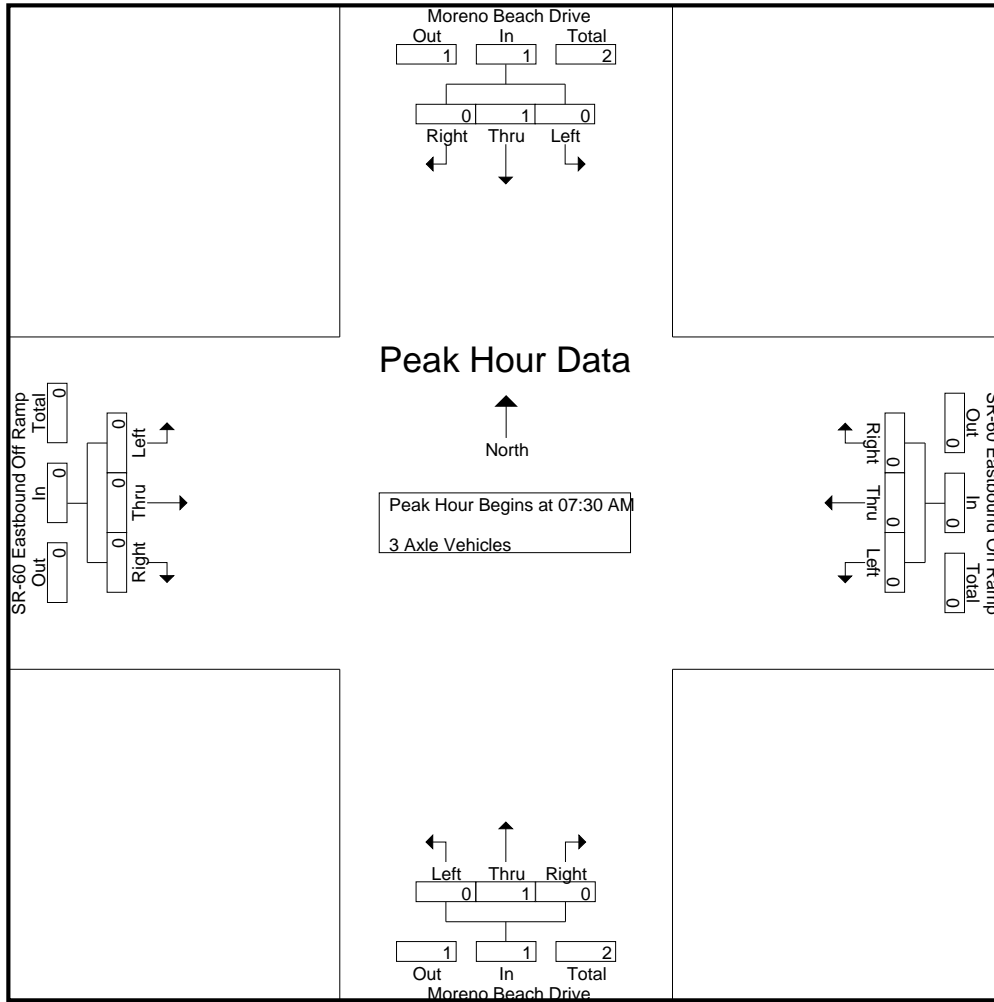
Groups Printed- 3 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
07:45 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	1	0	1	0	0	0	0	2
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	1	0	1	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
Grand Total	0	2	0	2	0	0	0	0	0	2	0	2	0	0	1	1	5
Apprch %	0	100	0		0	0	0		0	100	0		0	0	100		
Total %	0	40	0	40	0	0	0	0	0	40	0	40	0	0	20	20	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.500

City of Moreno Valley
 N/S: Moreno Beach Drive
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 Weather: Clear

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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	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	0	0	0	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	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E AM
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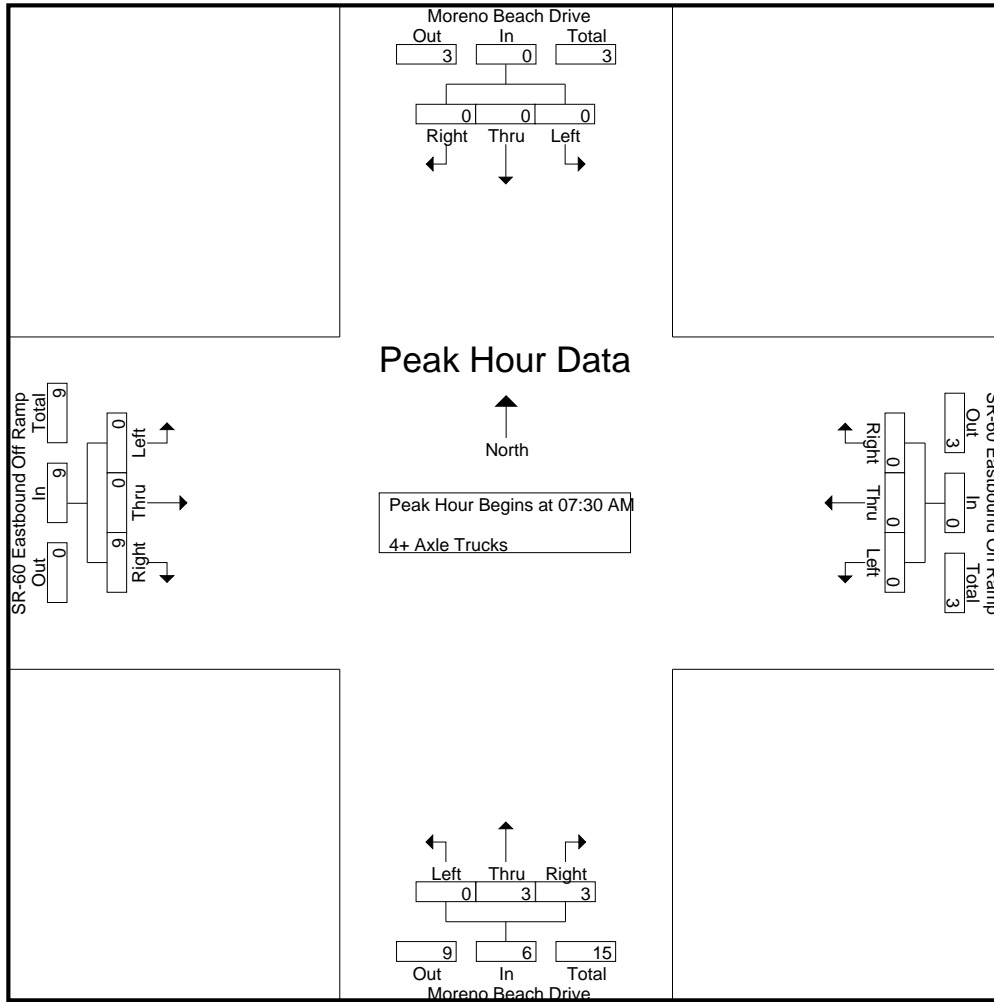
Groups Printed- 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	1	0	1	0	0	0	0	0	3	0	3	0	0	1	1	5
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	2	2	4
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	1	3
Total	0	1	0	1	0	0	0	0	0	5	2	7	0	0	6	6	14
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	4	5
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2	3
08:30 AM	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	7	2	9	0	0	6	6	15
Grand Total	0	1	0	1	0	0	0	0	0	12	4	16	0	0	12	12	29
Apprch %	0	100	0		0	0	0		0	75	25		0	0	100		
Total %	0	3.4	0	3.4	0	0	0	0	0	41.4	13.8	55.2	0	0	41.4	41.4	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	2	2	4
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	4	5
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2	3
Total Volume	0	0	0	0	0	0	0	0	0	3	3	6	0	0	9	9	15
% App. Total	0	0	0		0	0	0		0	50	50		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.750	.000	.000	.563	.563	.750

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	2	2	0	0	2	2
+15 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	4
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2
Total Volume	0	0	0	0	0	0	0	0	0	3	3	6	0	0	9	9
% App. Total	0	0	0	0	0	0	0	0	0	50	50	100	0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.750	.000	.000	.563	.563

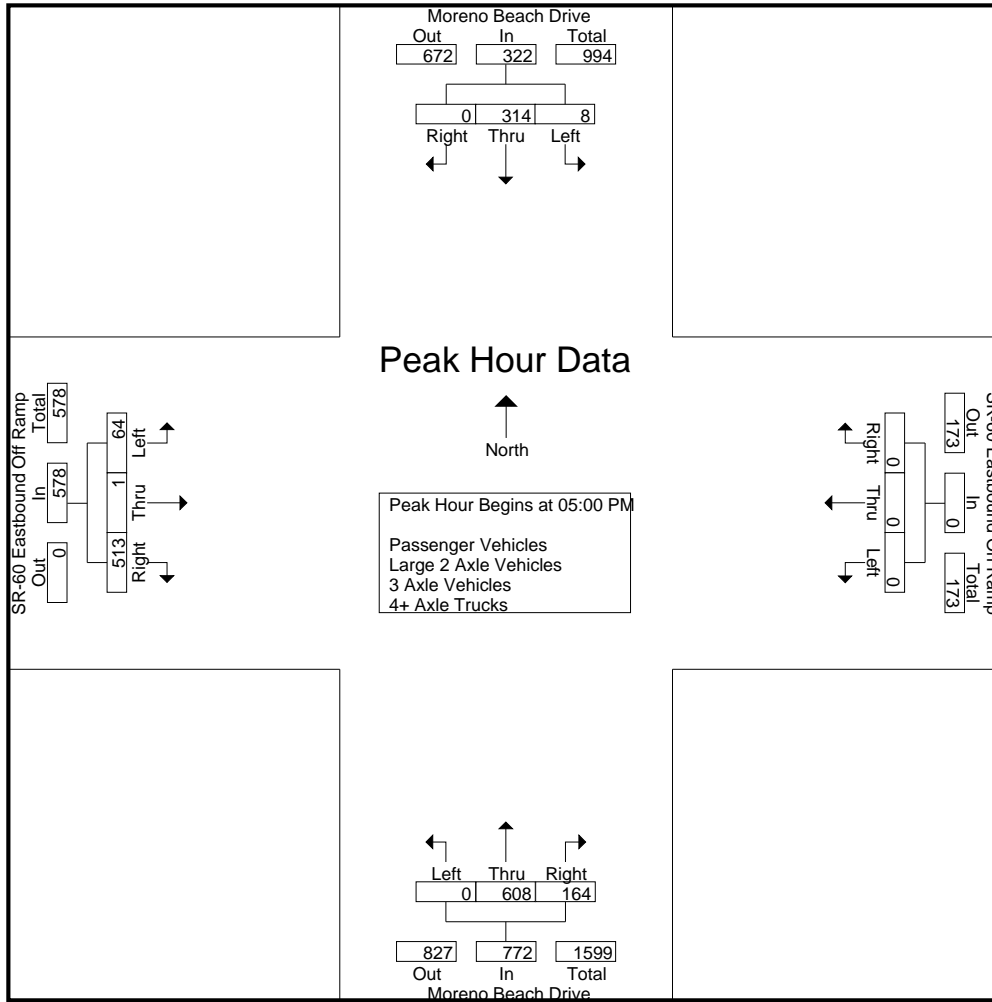
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	62	0	63	0	0	0	0	0	128	39	167	22	0	93	115	345
04:15 PM	0	78	0	78	0	0	0	0	0	104	21	125	20	2	129	151	354
04:30 PM	1	75	0	76	0	0	0	0	0	134	43	177	13	0	113	126	379
04:45 PM	1	74	0	75	0	0	0	0	0	106	32	138	17	0	121	138	351
Total	3	289	0	292	0	0	0	0	0	472	135	607	72	2	456	530	1429
05:00 PM	2	93	0	95	0	0	0	0	0	145	38	183	16	0	121	137	415
05:15 PM	2	67	0	69	0	0	0	0	0	154	51	205	15	0	131	146	420
05:30 PM	1	76	0	77	0	0	0	0	0	169	40	209	9	0	132	141	427
05:45 PM	3	78	0	81	0	0	0	0	0	140	35	175	24	1	129	154	410
Total	8	314	0	322	0	0	0	0	0	608	164	772	64	1	513	578	1672
Grand Total	11	603	0	614	0	0	0	0	0	1080	299	1379	136	3	969	1108	3101
Apprch %	1.8	98.2	0		0	0	0		0	78.3	21.7		12.3	0.3	87.5		
Total %	0.4	19.4	0	19.8	0	0	0	0	0	34.8	9.6	44.5	4.4	0.1	31.2	35.7	
Passenger Vehicles	11	591	0	602	0	0	0	0	0	1055	291	1346	134	1	953	1088	3036
% Passenger Vehicles	100	98	0	98	0	0	0	0	0	97.7	97.3	97.6	98.5	33.3	98.3	98.2	97.9
Large 2 Axle Vehicles	0	7	0	7	0	0	0	0	0	14	7	21	2	2	9	13	41
% Large 2 Axle Vehicles	0	1.2	0	1.1	0	0	0	0	0	1.3	2.3	1.5	1.5	66.7	0.9	1.2	1.3
3 Axle Vehicles	0	3	0	3	0	0	0	0	0	4	0	4	0	0	2	2	9
% 3 Axle Vehicles	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.3	0	0	0.2	0.2	0.3
4+ Axle Trucks	0	2	0	2	0	0	0	0	0	7	1	8	0	0	5	5	15
% 4+ Axle Trucks	0	0.3	0	0.3	0	0	0	0	0	0.6	0.3	0.6	0	0	0.5	0.5	0.5

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	93	0	95	0	0	0	0	0	145	38	183	16	0	121	137	415
05:15 PM	2	67	0	69	0	0	0	0	0	154	51	205	15	0	131	146	420
05:30 PM	1	76	0	77	0	0	0	0	0	169	40	209	9	0	132	141	427
05:45 PM	3	78	0	81	0	0	0	0	0	140	35	175	24	1	129	154	410
Total Volume	8	314	0	322	0	0	0	0	0	608	164	772	64	1	513	578	1672
% App. Total	2.5	97.5	0		0	0	0		0	78.8	21.2		11.1	0.2	88.8		
PHF	.667	.844	.000	.847	.000	.000	.000	.000	.000	.899	.804	.923	.667	.250	.972	.938	.979



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				05:00 PM				05:00 PM			
+0 mins.	0	78	0	78	0	0	0	0	0	145	38	183	16	0	121	137
+15 mins.	1	75	0	76	0	0	0	0	0	154	51	205	15	0	131	146
+30 mins.	1	74	0	75	0	0	0	0	0	169	40	209	9	0	132	141
+45 mins.	2	93	0	95	0	0	0	0	0	140	35	175	24	1	129	154
Total Volume	4	320	0	324	0	0	0	0	0	608	164	772	64	1	513	578
% App. Total	1.2	98.8	0		0	0	0		0	78.8	21.2		11.1	0.2	88.8	
PHF	.500	.860	.000	.853	.000	.000	.000	.000	.000	.899	.804	.923	.667	.250	.972	.938

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

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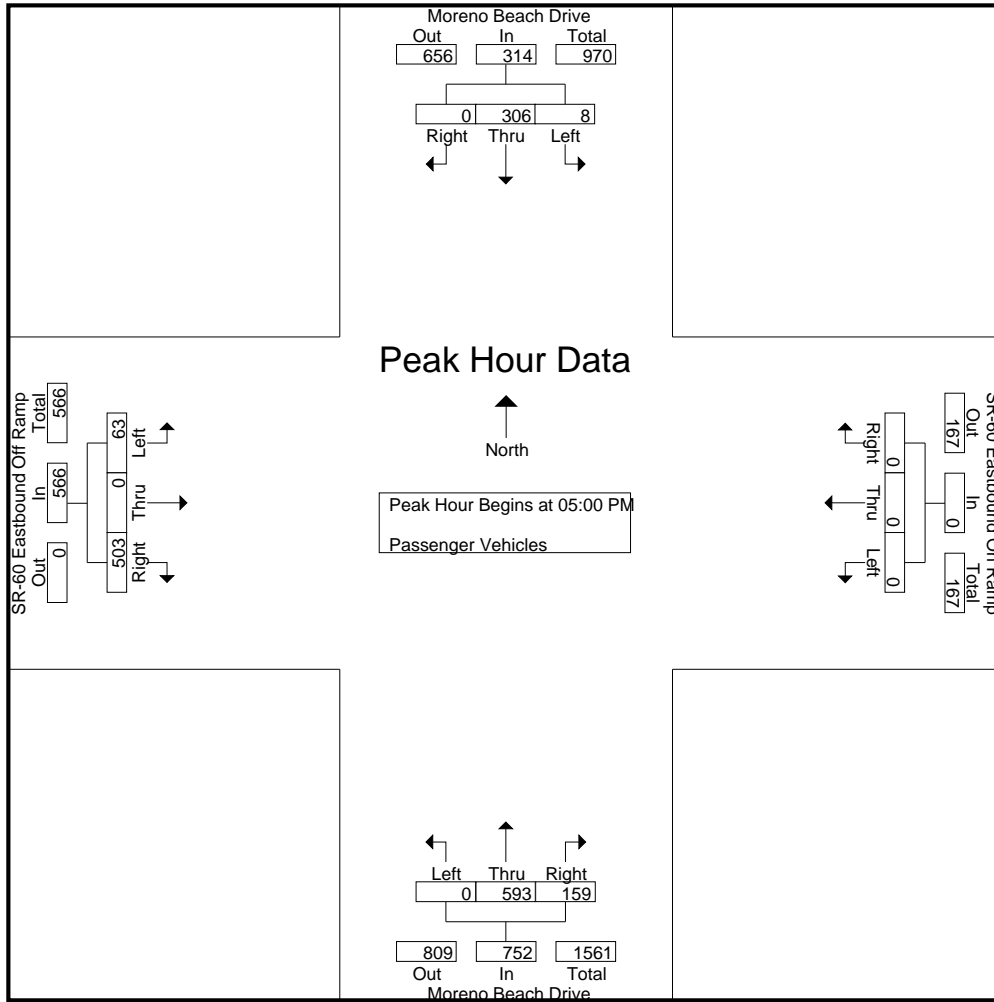
Groups Printed- Passenger Vehicles

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	62	0	63	0	0	0	0	0	125	38	163	22	0	93	115	341
04:15 PM	0	77	0	77	0	0	0	0	0	104	19	123	19	1	126	146	346
04:30 PM	1	73	0	74	0	0	0	0	0	133	43	176	13	0	112	125	375
04:45 PM	1	73	0	74	0	0	0	0	0	100	32	132	17	0	119	136	342
Total	3	285	0	288	0	0	0	0	0	462	132	594	71	1	450	522	1404
05:00 PM	2	89	0	91	0	0	0	0	0	138	38	176	16	0	118	134	401
05:15 PM	2	66	0	68	0	0	0	0	0	151	48	199	14	0	128	142	409
05:30 PM	1	75	0	76	0	0	0	0	0	167	39	206	9	0	129	138	420
05:45 PM	3	76	0	79	0	0	0	0	0	137	34	171	24	0	128	152	402
Total	8	306	0	314	0	0	0	0	0	593	159	752	63	0	503	566	1632
Grand Total	11	591	0	602	0	0	0	0	0	1055	291	1346	134	1	953	1088	3036
Apprch %	1.8	98.2	0		0	0	0		0	78.4	21.6		12.3	0.1	87.6		
Total %	0.4	19.5	0	19.8	0	0	0	0	0	34.7	9.6	44.3	4.4	0	31.4	35.8	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	89	0	91	0	0	0	0	0	138	38	176	16	0	118	134	401
05:15 PM	2	66	0	68	0	0	0	0	0	151	48	199	14	0	128	142	409
05:30 PM	1	75	0	76	0	0	0	0	0	167	39	206	9	0	129	138	420
05:45 PM	3	76	0	79	0	0	0	0	0	137	34	171	24	0	128	152	402
Total Volume	8	306	0	314	0	0	0	0	0	593	159	752	63	0	503	566	1632
% App. Total	2.5	97.5	0		0	0	0		0	78.9	21.1		11.1	0	88.9		
PHF	.667	.860	.000	.863	.000	.000	.000	.000	.000	.888	.828	.913	.656	.000	.975	.931	.971

City of Moreno Valley
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	2	89	0	91	0	0	0	0	0	138	38	176	16	0	118	134
+15 mins.	2	66	0	68	0	0	0	0	0	151	48	199	14	0	128	142
+30 mins.	1	75	0	76	0	0	0	0	0	167	39	206	9	0	129	138
+45 mins.	3	76	0	79	0	0	0	0	0	137	34	171	24	0	128	152
Total Volume	8	306	0	314	0	0	0	0	0	593	159	752	63	0	503	566
% App. Total	2.5	97.5	0		0	0	0		0	78.9	21.1		11.1	0	88.9	
PHF	.667	.860	.000	.863	.000	.000	.000	.000	.000	.888	.828	.913	.656	.000	.975	.931

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
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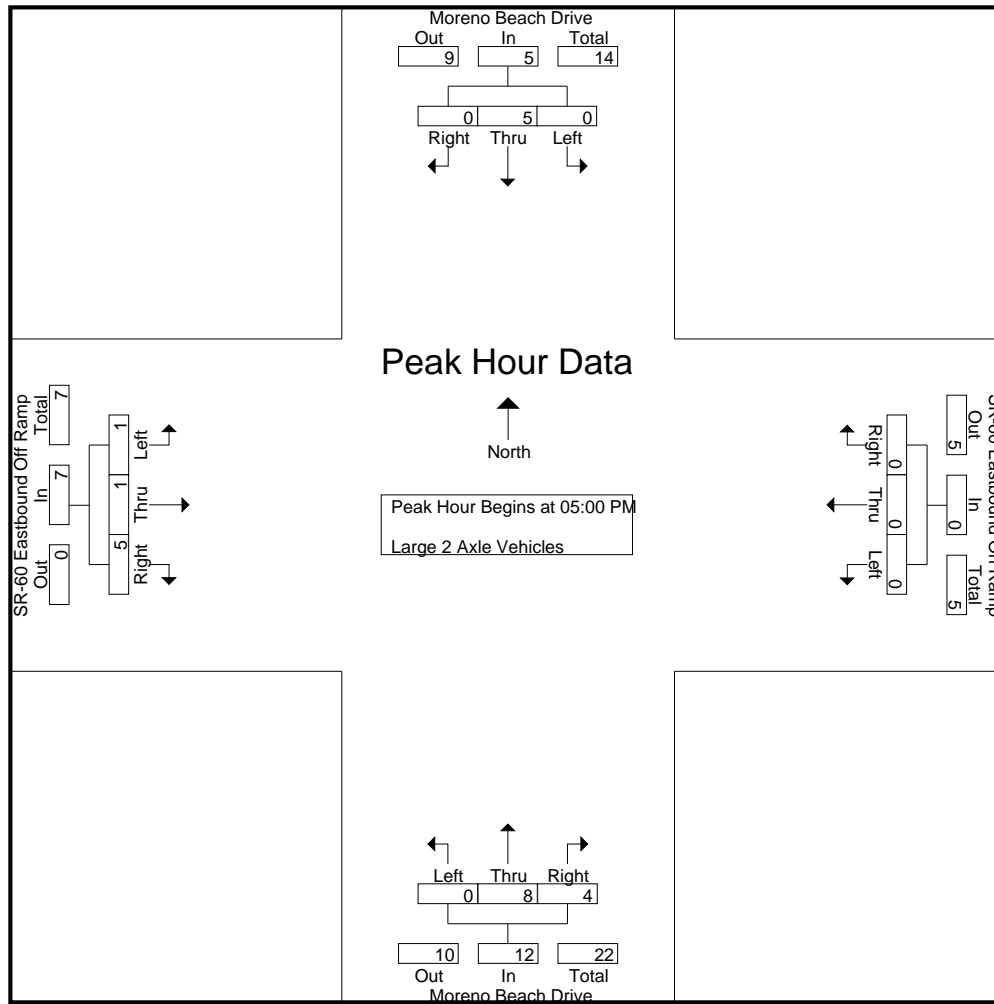
Groups Printed- Large 2 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	3
04:15 PM	0	1	0	1	0	0	0	0	0	0	2	2	1	1	3	5	8
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
Total	0	2	0	2	0	0	0	0	0	6	3	9	1	1	4	6	17
05:00 PM	0	2	0	2	0	0	0	0	0	5	0	5	0	0	2	2	9
05:15 PM	0	0	0	0	0	0	0	0	0	1	2	3	1	0	2	3	6
05:30 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	1	1	3
05:45 PM	0	2	0	2	0	0	0	0	0	2	1	3	0	1	0	1	6
Total	0	5	0	5	0	0	0	0	0	8	4	12	1	1	5	7	24
Grand Total	0	7	0	7	0	0	0	0	0	14	7	21	2	2	9	13	41
Apprch %	0	100	0		0	0	0		0	66.7	33.3		15.4	15.4	69.2		
Total %	0	17.1	0	17.1	0	0	0	0	0	34.1	17.1	51.2	4.9	4.9	22	31.7	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	2	0	2	0	0	0	0	0	5	0	5	0	0	2	2	9
05:15 PM	0	0	0	0	0	0	0	0	0	1	2	3	1	0	2	3	6
05:30 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	1	1	3
05:45 PM	0	2	0	2	0	0	0	0	0	2	1	3	0	1	0	1	6
Total Volume	0	5	0	5	0	0	0	0	0	8	4	12	1	1	5	7	24
% App. Total	0	100	0		0	0	0		0	66.7	33.3		14.3	14.3	71.4		
PHF	.000	.625	.000	.625	.000	.000	.000	.000	.000	.400	.500	.600	.250	.250	.625	.583	.667

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E PM
 Site Code : 99919736
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM								
+0 mins.	0	2	0	2	0	0	0	0	0	5	0	5	0	0	0	2	2
+15 mins.	0	0	0	0	0	0	0	0	0	1	2	3	1	0	2	3	3
+30 mins.	0	1	0	1	0	0	0	0	0	0	1	1	0	0	1	1	1
+45 mins.	0	2	0	2	0	0	0	0	0	2	1	3	0	1	0	1	1
Total Volume	0	5	0	5	0	0	0	0	0	8	4	12	1	1	5	7	7
% App. Total	0	100	0	0	0	0	0	0	0	66.7	33.3	0	14.3	14.3	71.4	0	0
PHF	.000	.625	.000	.625	.000	.000	.000	.000	.000	.400	.500	.600	.250	.250	.625	.583	.583

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

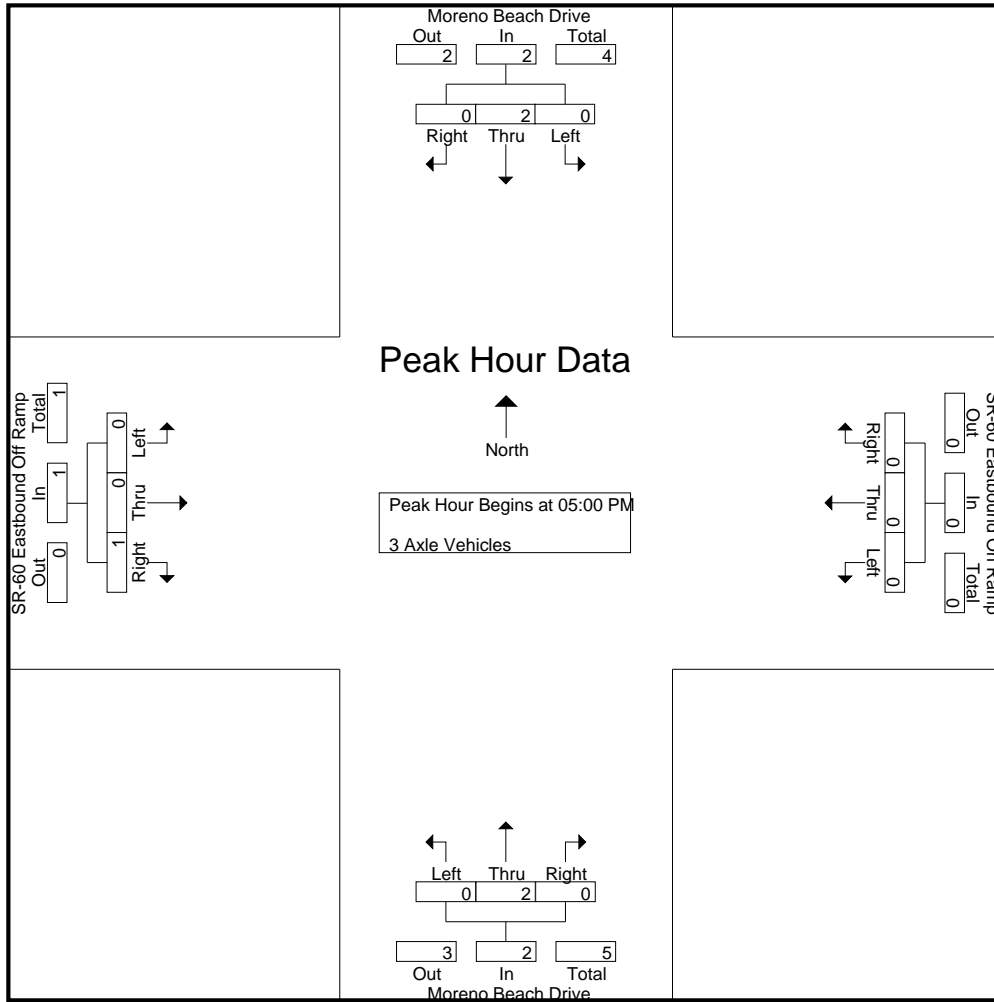
Groups Printed- 3 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	1	3
Total	0	1	0	1	0	0	0	0	0	2	0	2	0	0	1	1	4
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	1	0	1	0	0	1	1	2
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	2	0	2	0	0	1	1	5
Grand Total	0	3	0	3	0	0	0	0	0	4	0	4	0	0	2	2	9
Apprch %	0	100	0		0	0	0		0	100	0		0	0	100		
Total %	0	33.3	0	33.3	0	0	0	0	0	44.4	0	44.4	0	0	22.2	22.2	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
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	1	0	1	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	2	0	2	0	0	1	1	5
% App. Total	0	100	0		0	0	0		0	100	0		0	0	100		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250	.625

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 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	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	1	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	2	0	2	0	0	1	1
% App. Total	0	100	0	0	0	0	0	0	0	100	0	0	0	0	100	0
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250

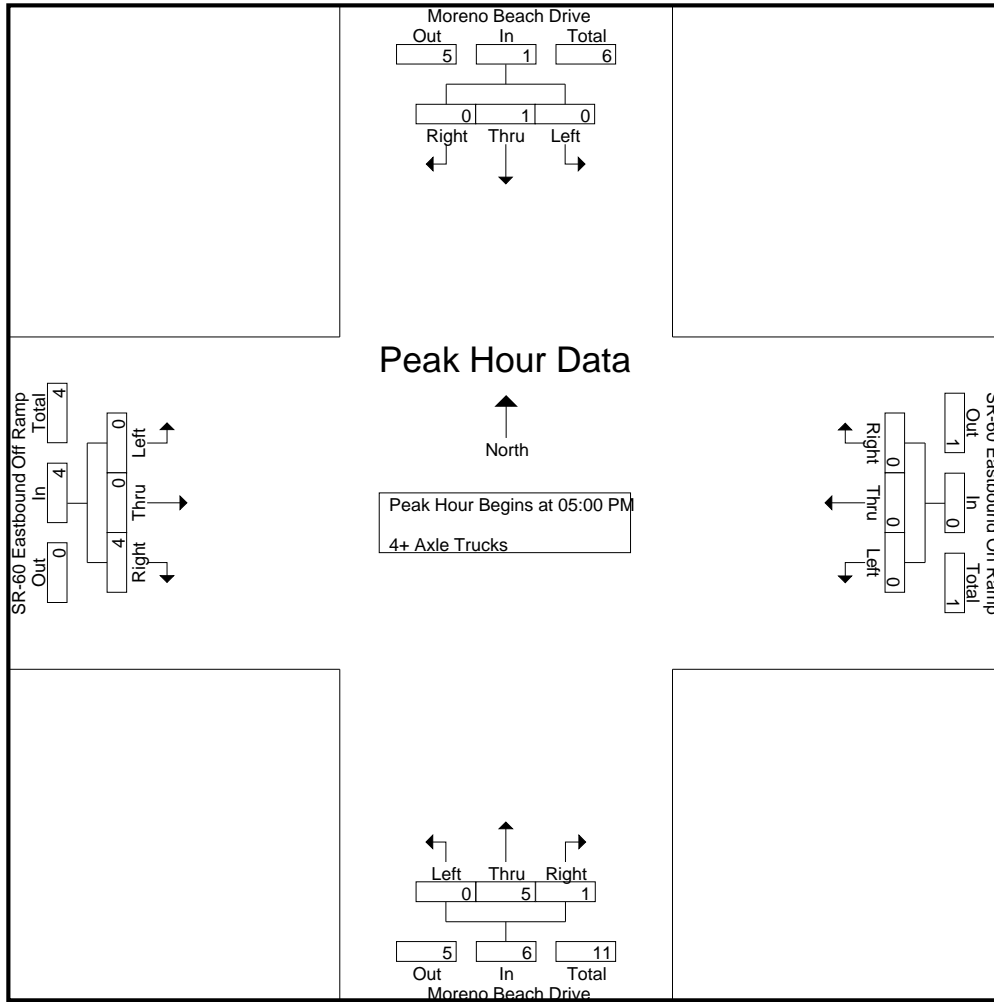
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 09_MRV_Mo Bea_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
Total	0	1	0	1	0	0	0	0	0	2	0	2	0	0	1	1	4
05:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
05:15 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	4
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
Total	0	1	0	1	0	0	0	0	0	5	1	6	0	0	4	4	11
Grand Total	0	2	0	2	0	0	0	0	0	7	1	8	0	0	5	5	15
Apprch %	0	100	0		0	0	0		0	87.5	12.5		0	0	100		
Total %	0	13.3	0	13.3	0	0	0	0	0	46.7	6.7	53.3	0	0	33.3	33.3	

Start Time	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
05:15 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	4
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
Total Volume	0	1	0	1	0	0	0	0	0	5	1	6	0	0	4	4	11
% App. Total	0	100	0		0	0	0		0	83.3	16.7		0	0	100		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.625	.250	.500	.000	.000	1.00	1.00	.688



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1
Total Volume	0	1	0	1	0	0	0	0	0	5	1	6	0	0	4	4
% App. Total	0	100	0		0	0	0		0	83.3	16.7		0	0	100	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.625	.250	.500	.000	.000	1.000	1.000

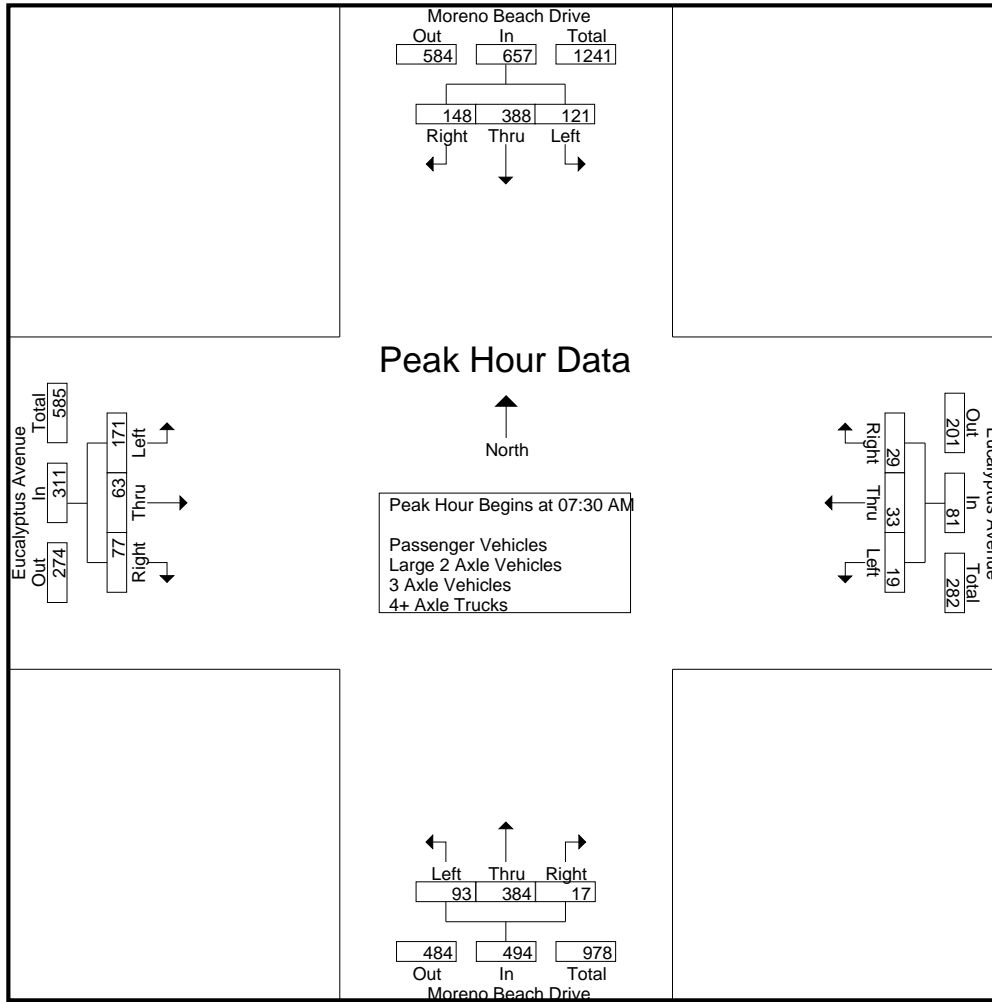
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	24	70	24	118	3	9	5	17	10	100	1	111	39	5	5	49	295
07:15 AM	11	73	27	111	5	4	4	13	17	105	4	126	43	11	10	64	314
07:30 AM	22	86	28	136	4	8	3	15	16	100	3	119	44	8	11	63	333
07:45 AM	35	115	54	204	2	8	9	19	31	126	5	162	39	20	22	81	466
Total	92	344	133	569	14	29	21	64	74	431	13	518	165	44	48	257	1408
08:00 AM	31	109	32	172	6	8	4	18	27	83	3	113	46	24	26	96	399
08:15 AM	33	78	34	145	7	9	13	29	19	75	6	100	42	11	18	71	345
08:30 AM	17	71	25	113	4	5	13	22	16	64	4	84	43	9	13	65	284
08:45 AM	19	72	37	128	6	5	14	25	25	66	4	95	51	9	19	79	327
Total	100	330	128	558	23	27	44	94	87	288	17	392	182	53	76	311	1355
Grand Total	192	674	261	1127	37	56	65	158	161	719	30	910	347	97	124	568	2763
Apprch %	17	59.8	23.2		23.4	35.4	41.1		17.7	79	3.3		61.1	17.1	21.8		
Total %	6.9	24.4	9.4	40.8	1.3	2	2.4	5.7	5.8	26	1.1	32.9	12.6	3.5	4.5	20.6	
Passenger Vehicles	179	652	252	1083	36	55	52	143	156	696	30	882	329	94	118	541	2649
% Passenger Vehicles	93.2	96.7	96.6	96.1	97.3	98.2	80	90.5	96.9	96.8	100	96.9	94.8	96.9	95.2	95.2	95.9
Large 2 Axle Vehicles	4	18	6	28	1	1	4	6	4	18	0	22	12	2	5	19	75
% Large 2 Axle Vehicles	2.1	2.7	2.3	2.5	2.7	1.8	6.2	3.8	2.5	2.5	0	2.4	3.5	2.1	4	3.3	2.7
3 Axle Vehicles	0	2	1	3	0	0	1	1	1	0	0	1	2	1	0	3	8
% 3 Axle Vehicles	0	0.3	0.4	0.3	0	0	1.5	0.6	0.6	0	0	0.1	0.6	1	0	0.5	0.3
4+ Axle Trucks	9	2	2	13	0	0	8	8	0	5	0	5	4	0	1	5	31
% 4+ Axle Trucks	4.7	0.3	0.8	1.2	0	0	12.3	5.1	0	0.7	0	0.5	1.2	0	0.8	0.9	1.1

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	22	86	28	136	4	8	3	15	16	100	3	119	44	8	11	63	333
07:45 AM	35	115	54	204	2	8	9	19	31	126	5	162	39	20	22	81	466
08:00 AM	31	109	32	172	6	8	4	18	27	83	3	113	46	24	26	96	399
08:15 AM	33	78	34	145	7	9	13	29	19	75	6	100	42	11	18	71	345
Total Volume	121	388	148	657	19	33	29	81	93	384	17	494	171	63	77	311	1543
% App. Total	18.4	59.1	22.5		23.5	40.7	35.8		18.8	77.7	3.4		55	20.3	24.8		
PHF	.864	.843	.685	.805	.679	.917	.558	.698	.750	.762	.708	.762	.929	.656	.740	.810	.828



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				08:00 AM				07:15 AM				07:45 AM			
+0 mins.	22	86	28	136	6	8	4	18	17	105	4	126	39	20	22	81
+15 mins.	35	115	54	204	7	9	13	29	16	100	3	119	46	24	26	96
+30 mins.	31	109	32	172	4	5	13	22	31	126	5	162	42	11	18	71
+45 mins.	33	78	34	145	6	5	14	25	27	83	3	113	43	9	13	65
Total Volume	121	388	148	657	23	27	44	94	91	414	15	520	170	64	79	313
% App. Total	18.4	59.1	22.5		24.5	28.7	46.8		17.5	79.6	2.9		54.3	20.4	25.2	
PHF	.864	.843	.685	.805	.821	.750	.786	.810	.734	.821	.750	.802	.924	.667	.760	.815

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

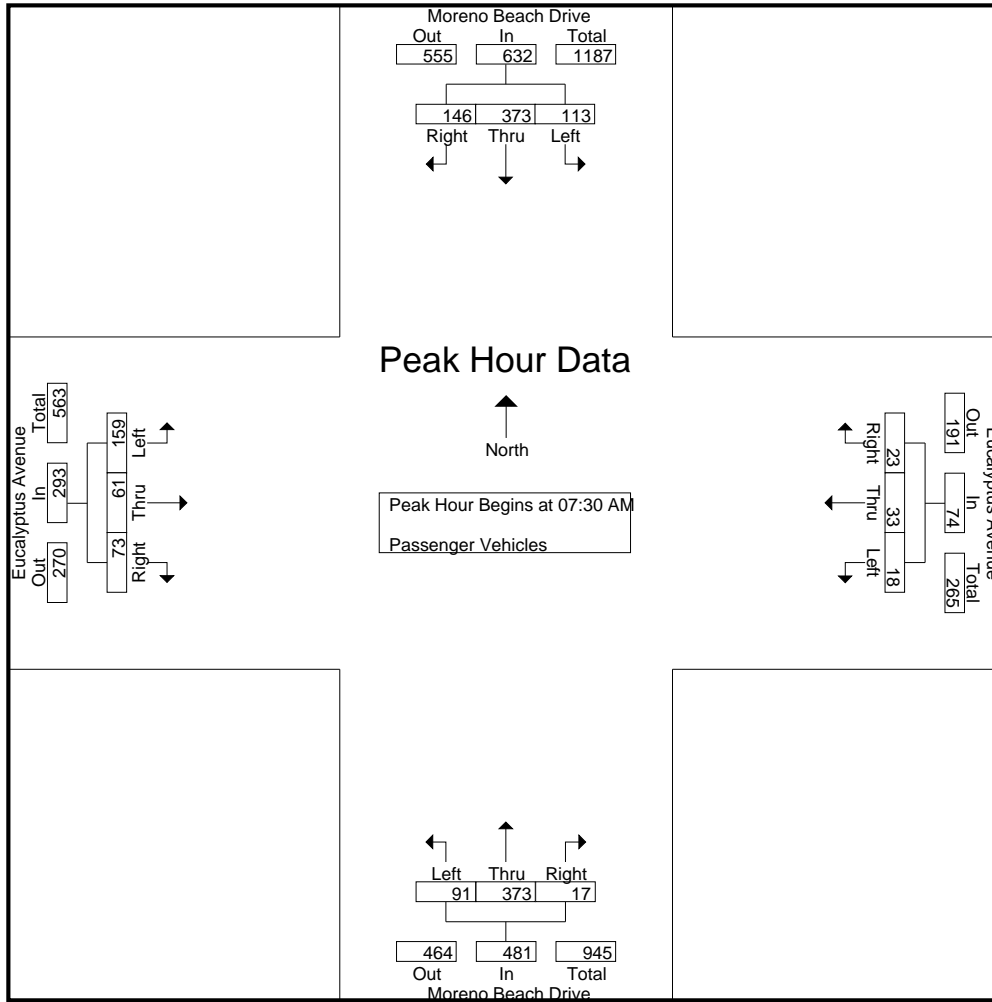
Groups Printed- Passenger Vehicles

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	22	68	22	112	3	8	3	14	8	100	1	109	36	5	5	46	281
07:15 AM	10	71	23	104	5	4	3	12	17	99	4	120	43	11	9	63	299
07:30 AM	20	82	27	129	3	8	3	14	16	98	3	117	39	8	10	57	317
07:45 AM	33	113	54	200	2	8	7	17	29	123	5	157	38	19	21	78	452
Total	85	334	126	545	13	28	16	57	70	420	13	503	156	43	45	244	1349
08:00 AM	28	103	32	163	6	8	3	17	27	82	3	112	43	23	26	92	384
08:15 AM	32	75	33	140	7	9	10	26	19	70	6	95	39	11	16	66	327
08:30 AM	17	70	24	111	4	5	11	20	16	59	4	79	42	9	12	63	273
08:45 AM	17	70	37	124	6	5	12	23	24	65	4	93	49	8	19	76	316
Total	94	318	126	538	23	27	36	86	86	276	17	379	173	51	73	297	1300
Grand Total	179	652	252	1083	36	55	52	143	156	696	30	882	329	94	118	541	2649
Apprch %	16.5	60.2	23.3		25.2	38.5	36.4		17.7	78.9	3.4		60.8	17.4	21.8		
Total %	6.8	24.6	9.5	40.9	1.4	2.1	2	5.4	5.9	26.3	1.1	33.3	12.4	3.5	4.5	20.4	

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	20	82	27	129	3	8	3	14	16	98	3	117	39	8	10	57	317
07:45 AM	33	113	54	200	2	8	7	17	29	123	5	157	38	19	21	78	452
08:00 AM	28	103	32	163	6	8	3	17	27	82	3	112	43	23	26	92	384
08:15 AM	32	75	33	140	7	9	10	26	19	70	6	95	39	11	16	66	327
Total Volume	113	373	146	632	18	33	23	74	91	373	17	481	159	61	73	293	1480
% App. Total	17.9	59	23.1		24.3	44.6	31.1		18.9	77.5	3.5		54.3	20.8	24.9		
PHF	.856	.825	.676	.790	.643	.917	.575	.712	.784	.758	.708	.766	.924	.663	.702	.796	.819

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	20	82	27	129	3	8	3	14	16	98	3	117	39	8	10	57
+15 mins.	33	113	54	200	2	8	7	17	29	123	5	157	38	19	21	78
+30 mins.	28	103	32	163	6	8	3	17	27	82	3	112	43	23	26	92
+45 mins.	32	75	33	140	7	9	10	26	19	70	6	95	39	11	16	66
Total Volume	113	373	146	632	18	33	23	74	91	373	17	481	159	61	73	293
% App. Total	17.9	59	23.1		24.3	44.6	31.1		18.9	77.5	3.5		54.3	20.8	24.9	
PHF	.856	.825	.676	.790	.643	.917	.575	.712	.784	.758	.708	.766	.924	.663	.702	.796

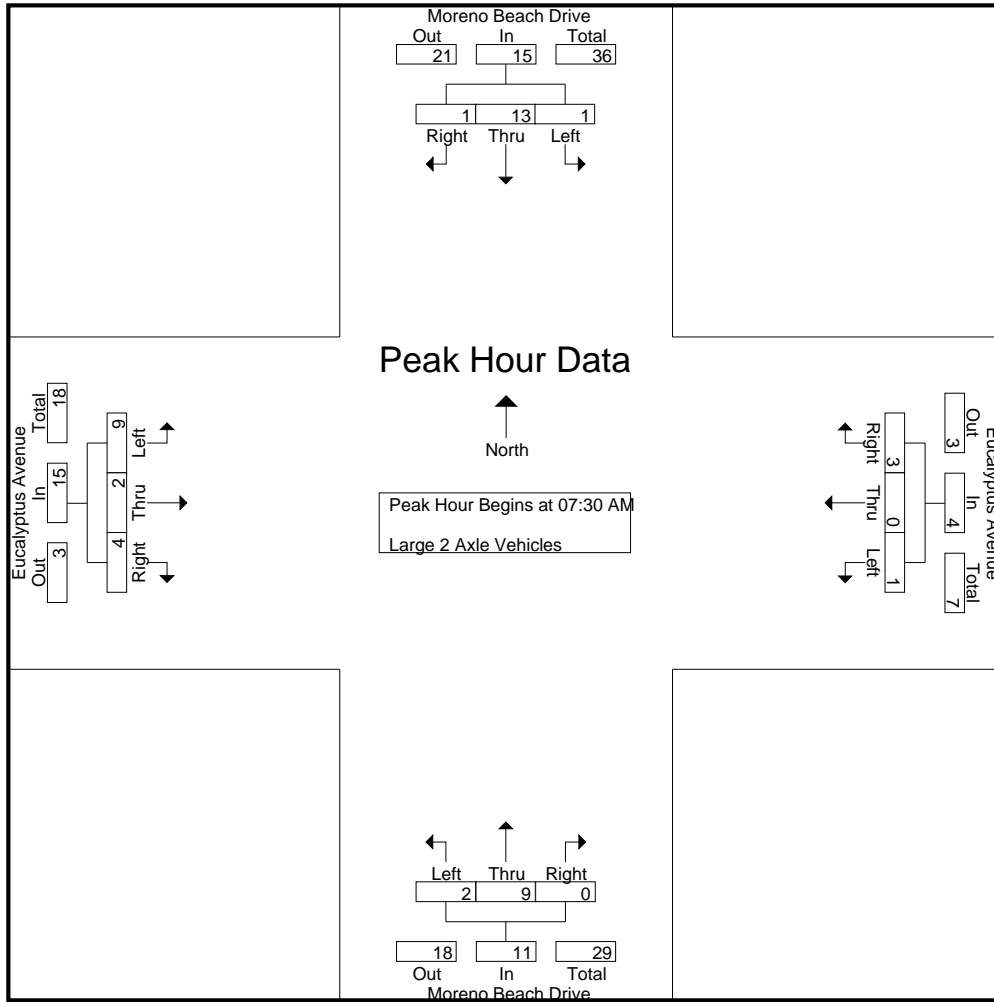
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	2	1	4	0	1	0	1	1	0	0	1	2	0	0	2	8
07:15 AM	0	1	3	4	0	0	1	1	0	5	0	5	0	0	1	1	11
07:30 AM	0	4	1	5	1	0	0	1	0	1	0	1	3	0	1	4	11
07:45 AM	1	2	0	3	0	0	1	1	2	2	0	4	1	1	1	3	11
Total	2	9	5	16	1	1	2	4	3	8	0	11	6	1	3	10	41
08:00 AM	0	5	0	5	0	0	1	1	0	1	0	1	2	1	0	3	10
08:15 AM	0	2	0	2	0	0	1	1	0	5	0	5	3	0	2	5	13
08:30 AM	0	1	1	2	0	0	0	0	0	3	0	3	0	0	0	0	5
08:45 AM	2	1	0	3	0	0	0	0	1	1	0	2	1	0	0	1	6
Total	2	9	1	12	0	0	2	2	1	10	0	11	6	1	2	9	34
Grand Total	4	18	6	28	1	1	4	6	4	18	0	22	12	2	5	19	75
Apprch %	14.3	64.3	21.4		16.7	16.7	66.7		18.2	81.8	0		63.2	10.5	26.3		
Total %	5.3	24	8	37.3	1.3	1.3	5.3	8	5.3	24	0	29.3	16	2.7	6.7	25.3	

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	4	1	5	1	0	0	1	0	1	0	1	3	0	1	4	11
07:45 AM	1	2	0	3	0	0	1	1	2	2	0	4	1	1	1	3	11
08:00 AM	0	5	0	5	0	0	1	1	0	1	0	1	2	1	0	3	10
08:15 AM	0	2	0	2	0	0	1	1	0	5	0	5	3	0	2	5	13
Total Volume	1	13	1	15	1	0	3	4	2	9	0	11	9	2	4	15	45
% App. Total	6.7	86.7	6.7		25	0	75		18.2	81.8	0		60	13.3	26.7		
PHF	.250	.650	.250	.750	.250	.000	.750	1.00	.250	.450	.000	.550	.750	.500	.500	.750	.865



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	4	1	5	1	0	0	1	0	1	0	1	3	0	1	4
+15 mins.	1	2	0	3	0	0	1	1	2	2	0	4	1	1	1	3
+30 mins.	0	5	0	5	0	0	1	1	0	1	0	1	2	1	0	3
+45 mins.	0	2	0	2	0	0	1	1	0	5	0	5	3	0	2	5
Total Volume	1	13	1	15	1	0	3	4	2	9	0	11	9	2	4	15
% App. Total	6.7	86.7	6.7		25	0	75		18.2	81.8	0		60	13.3	26.7	
PHF	.250	.650	.250	.750	.250	.000	.750	1.000	.250	.450	.000	.550	.750	.500	.500	.750

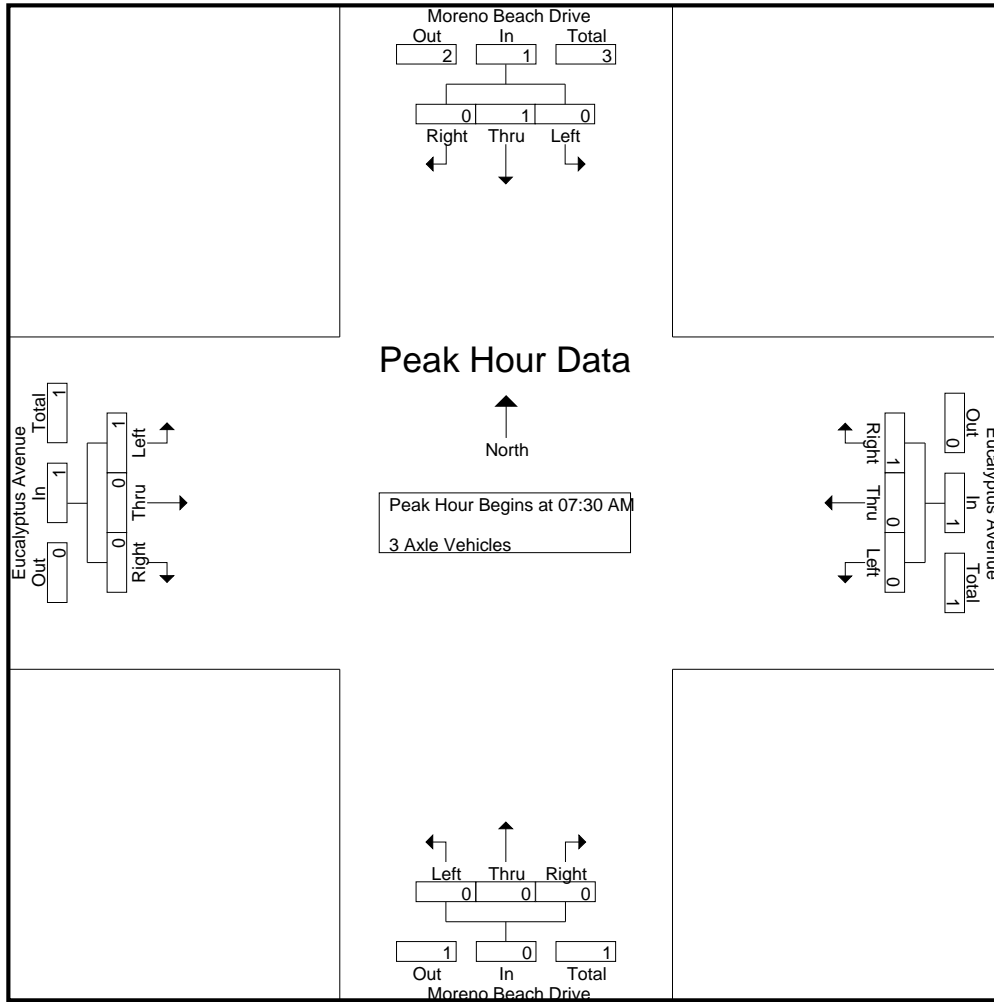
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
07:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	0	0	0	1	0	0	1	1	0	0	1	3
08:00 AM	0	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	1	1	0	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	2	0	2	0	0	1	1	0	0	0	0	1	1	0	2	5	
Grand Total	0	2	1	3	0	0	1	1	1	0	0	1	2	1	0	3	8	
Apprch %	0	66.7	33.3		0	0	100		100	0	0		66.7	33.3	0			
Total %	0	25	12.5	37.5	0	0	12.5	12.5	12.5	0	0	12.5	25	12.5	0	37.5		

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	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	1	1	0	0	0	0	0	0	0	0	0	2
Total Volume	0	1	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1	3
% App. Total	0	100	0		0	0	100		0	0	0		100	0	0			
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000	.250	.000	.000	.250	.375	



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	1	1	0	0	0	0	1	0	0	0	1
% App. Total	0	100	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000	.250	.000	.000	.250	

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

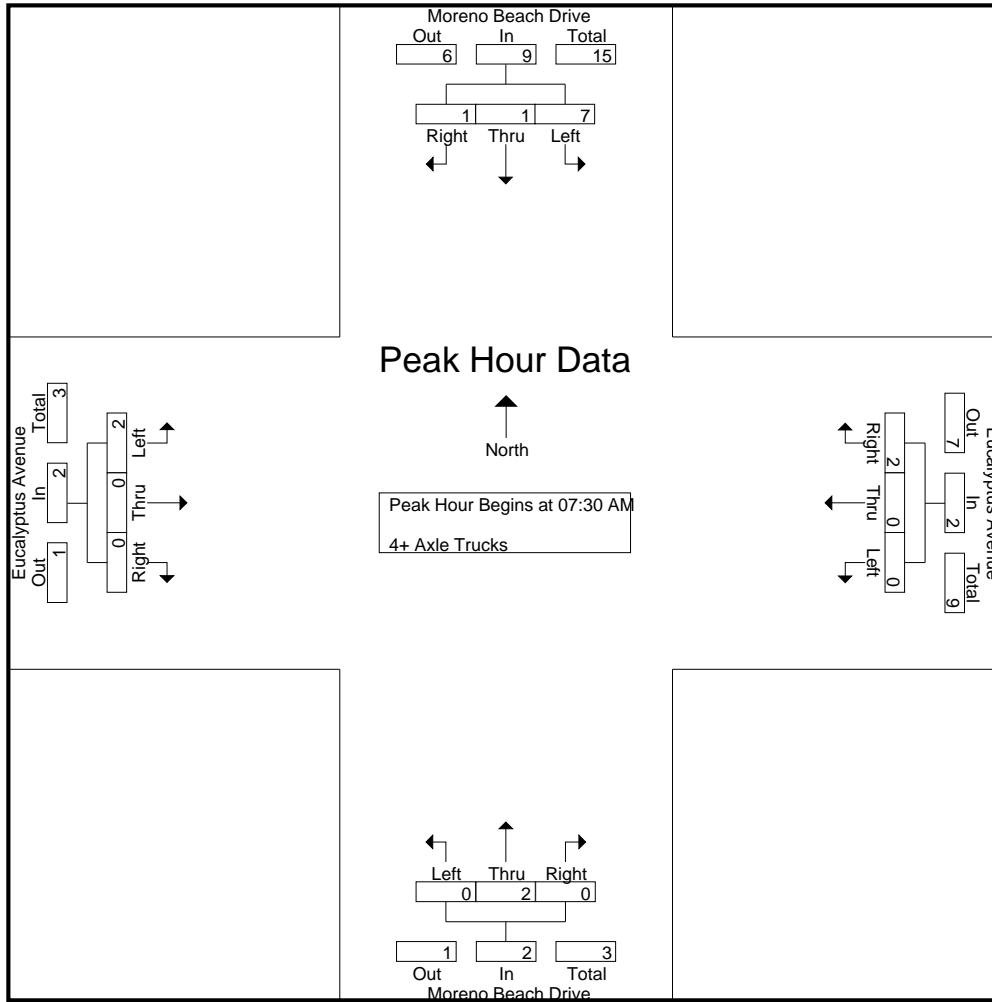
Groups Printed- 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	0	1	2	0	0	2	2	0	0	0	0	1	0	0	1	5
07:15 AM	1	1	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
07:30 AM	2	0	0	2	0	0	0	0	0	1	0	1	1	0	0	1	4
07:45 AM	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
Total	5	1	1	7	0	0	3	3	0	3	0	3	2	0	0	2	15
08:00 AM	3	1	0	4	0	0	0	0	0	0	0	0	1	0	0	1	5
08:15 AM	1	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	2	2	0	2	0	2	0	0	1	1	5
08:45 AM	0	0	0	0	0	0	2	2	0	0	0	0	1	0	0	1	3
Total	4	1	1	6	0	0	5	5	0	2	0	2	2	0	1	3	16
Grand Total	9	2	2	13	0	0	8	8	0	5	0	5	4	0	1	5	31
Apprch %	69.2	15.4	15.4		0	0	100		0	100	0		80	0	20		
Total %	29	6.5	6.5	41.9	0	0	25.8	25.8	0	16.1	0	16.1	12.9	0	3.2	16.1	

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	0	0	2	0	0	0	0	0	1	0	1	1	0	0	1	4
07:45 AM	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
08:00 AM	3	1	0	4	0	0	0	0	0	0	0	0	1	0	0	1	5
08:15 AM	1	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0	3
Total Volume	7	1	1	9	0	0	2	2	0	2	0	2	2	0	0	2	15
% App. Total	77.8	11.1	11.1		0	0	100		0	100	0		100	0	0		
PHF	.583	.250	.250	.563	.000	.000	.500	.500	.000	.500	.000	.500	.500	.000	.000	.500	.750

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MR_V_Mo Bea_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	2	0	0	2	0	0	0	0	0	1	0	1	1	0	0	1
+15 mins.	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0
+30 mins.	3	1	0	4	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	1	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0
Total Volume	7	1	1	9	0	0	2	2	0	2	0	2	2	0	0	2
% App. Total	77.8	11.1	11.1		0	0	100		0	100	0		100	0	0	
PHF	.583	.250	.250	.563	.000	.000	.500	.500	.000	.500	.000	.500	.500	.000	.000	.500

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

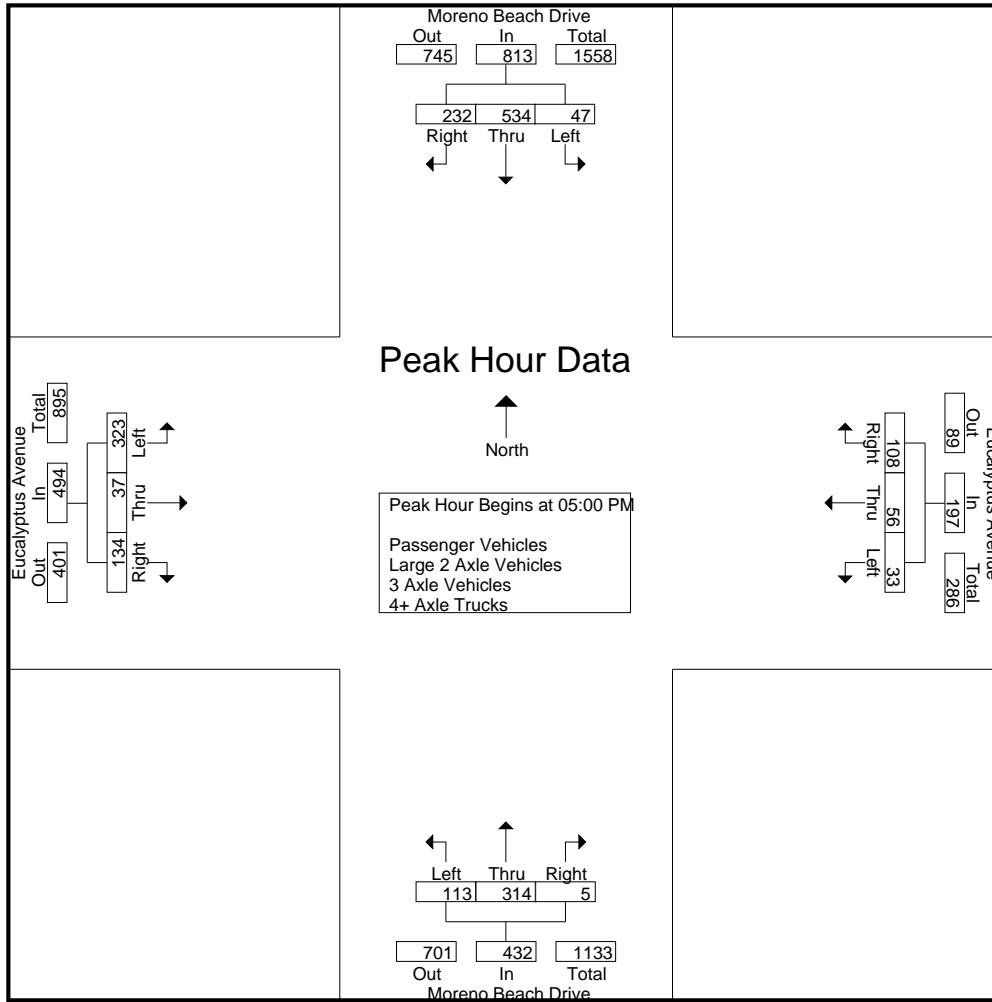
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	12	93	50	155	10	13	26	49	22	80	2	104	62	10	25	97	405
04:15 PM	20	141	43	204	14	15	22	51	16	60	2	78	48	10	37	95	428
04:30 PM	15	131	44	190	10	15	30	55	30	65	2	97	88	8	28	124	466
04:45 PM	11	119	65	195	12	14	27	53	32	51	4	87	64	10	19	93	428
Total	58	484	202	744	46	57	105	208	100	256	10	366	262	38	109	409	1727
05:00 PM	14	134	67	215	10	22	33	65	29	84	2	115	62	8	33	103	498
05:15 PM	13	127	53	193	7	11	26	44	19	75	0	94	89	10	37	136	467
05:30 PM	9	147	55	211	11	10	32	53	34	93	2	129	77	9	38	124	517
05:45 PM	11	126	57	194	5	13	17	35	31	62	1	94	95	10	26	131	454
Total	47	534	232	813	33	56	108	197	113	314	5	432	323	37	134	494	1936
Grand Total	105	1018	434	1557	79	113	213	405	213	570	15	798	585	75	243	903	3663
Apprch %	6.7	65.4	27.9		19.5	27.9	52.6		26.7	71.4	1.9		64.8	8.3	26.9		
Total %	2.9	27.8	11.8	42.5	2.2	3.1	5.8	11.1	5.8	15.6	0.4	21.8	16	2	6.6	24.7	
Passenger Vehicles	92	1007	428	1527	79	110	196	385	210	561	14	785	577	73	240	890	3587
% Passenger Vehicles	87.6	98.9	98.6	98.1	100	97.3	92	95.1	98.6	98.4	93.3	98.4	98.6	97.3	98.8	98.6	97.9
Large 2 Axle Vehicles	7	9	3	19	0	2	8	10	3	8	0	11	6	0	3	9	49
% Large 2 Axle Vehicles	6.7	0.9	0.7	1.2	0	1.8	3.8	2.5	1.4	1.4	0	1.4	1	0	1.2	1	1.3
3 Axle Vehicles	2	0	2	4	0	1	2	3	0	0	0	0	2	1	0	3	10
% 3 Axle Vehicles	1.9	0	0.5	0.3	0	0.9	0.9	0.7	0	0	0	0	0.3	1.3	0	0.3	0.3
4+ Axle Trucks	4	2	1	7	0	0	7	7	0	1	1	2	0	1	0	1	17
% 4+ Axle Trucks	3.8	0.2	0.2	0.4	0	0	3.3	1.7	0	0.2	6.7	0.3	0	1.3	0	0.1	0.5

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	14	134	67	215	10	22	33	65	29	84	2	115	62	8	33	103	498
05:15 PM	13	127	53	193	7	11	26	44	19	75	0	94	89	10	37	136	467
05:30 PM	9	147	55	211	11	10	32	53	34	93	2	129	77	9	38	124	517
05:45 PM	11	126	57	194	5	13	17	35	31	62	1	94	95	10	26	131	454
Total Volume	47	534	232	813	33	56	108	197	113	314	5	432	323	37	134	494	1936
% App. Total	5.8	65.7	28.5		16.8	28.4	54.8		26.2	72.7	1.2		65.4	7.5	27.1		
PHF	.839	.908	.866	.945	.750	.636	.818	.758	.831	.844	.625	.837	.850	.925	.882	.908	.936

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
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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:

	04:45 PM				04:15 PM				05:00 PM				05:00 PM			
+0 mins.	11	119	65	195	14	15	22	51	29	84	2	115	62	8	33	103
+15 mins.	14	134	67	215	10	15	30	55	19	75	0	94	89	10	37	136
+30 mins.	13	127	53	193	12	14	27	53	34	93	2	129	77	9	38	124
+45 mins.	9	147	55	211	10	22	33	65	31	62	1	94	95	10	26	131
Total Volume	47	527	240	814	46	66	112	224	113	314	5	432	323	37	134	494
% App. Total	5.8	64.7	29.5		20.5	29.5	50		26.2	72.7	1.2		65.4	7.5	27.1	
PHF	.839	.896	.896	.947	.821	.750	.848	.862	.831	.844	.625	.837	.850	.925	.882	.908

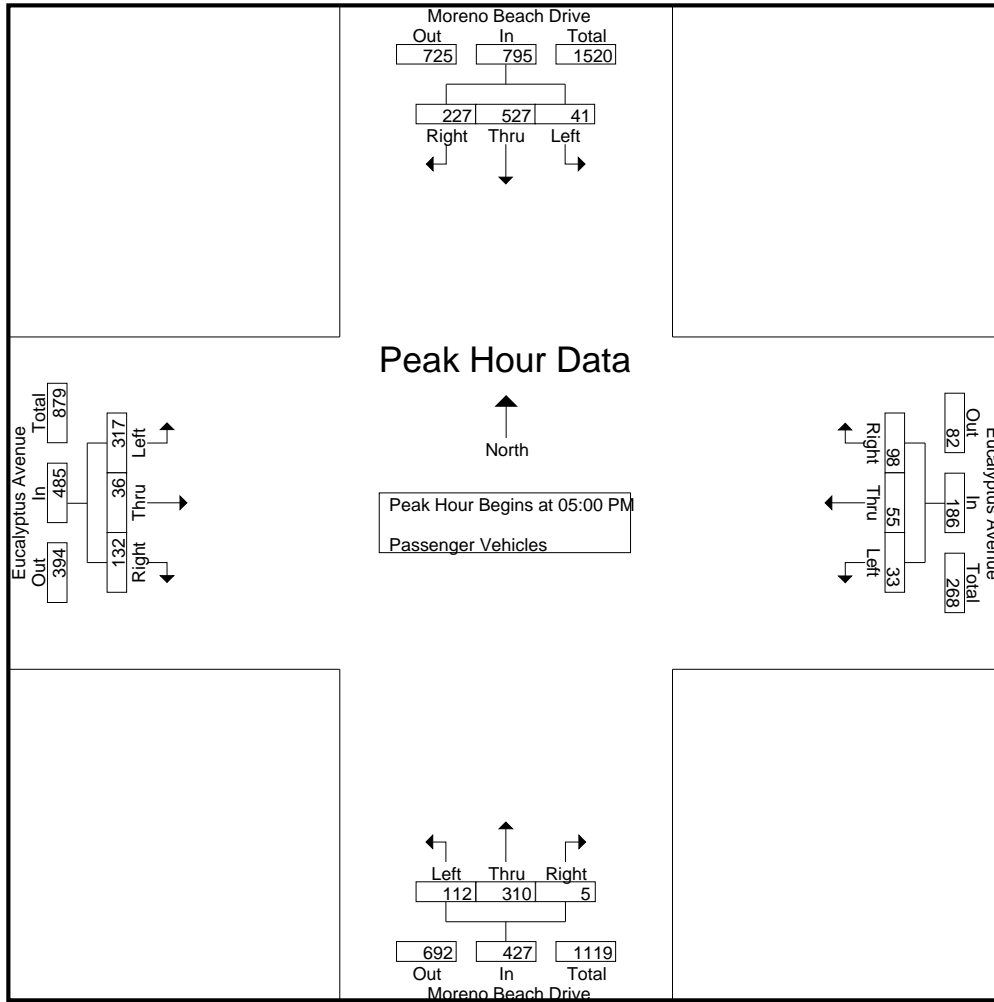
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	12	93	50	155	10	12	24	46	21	77	2	100	61	10	25	96	397
04:15 PM	16	139	43	198	14	14	22	50	16	58	2	76	48	10	36	94	418
04:30 PM	14	130	43	187	10	15	28	53	30	65	2	97	88	7	28	123	460
04:45 PM	9	118	65	192	12	14	24	50	31	51	3	85	63	10	19	92	419
Total	51	480	201	732	46	55	98	199	98	251	9	358	260	37	108	405	1694
05:00 PM	10	133	66	209	10	22	28	60	29	83	2	114	61	8	33	102	485
05:15 PM	12	125	51	188	7	11	23	41	19	73	0	92	88	10	36	134	455
05:30 PM	9	146	53	208	11	10	31	52	34	93	2	129	75	9	37	121	510
05:45 PM	10	123	57	190	5	12	16	33	30	61	1	92	93	9	26	128	443
Total	41	527	227	795	33	55	98	186	112	310	5	427	317	36	132	485	1893
Grand Total	92	1007	428	1527	79	110	196	385	210	561	14	785	577	73	240	890	3587
Apprch %	6	65.9	28		20.5	28.6	50.9		26.8	71.5	1.8		64.8	8.2	27		
Total %	2.6	28.1	11.9	42.6	2.2	3.1	5.5	10.7	5.9	15.6	0.4	21.9	16.1	2	6.7	24.8	

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	10	133	66	209	10	22	28	60	29	83	2	114	61	8	33	102	485
05:15 PM	12	125	51	188	7	11	23	41	19	73	0	92	88	10	36	134	455
05:30 PM	9	146	53	208	11	10	31	52	34	93	2	129	75	9	37	121	510
05:45 PM	10	123	57	190	5	12	16	33	30	61	1	92	93	9	26	128	443
Total Volume	41	527	227	795	33	55	98	186	112	310	5	427	317	36	132	485	1893
% App. Total	5.2	66.3	28.6		17.7	29.6	52.7		26.2	72.6	1.2		65.4	7.4	27.2		
PHF	.854	.902	.860	.951	.750	.625	.790	.775	.824	.833	.625	.828	.852	.900	.892	.905	.928



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	10	133	66	209	10	22	28	60	29	83	2	114	61	8	33	102
+15 mins.	12	125	51	188	7	11	23	41	19	73	0	92	88	10	36	134
+30 mins.	9	146	53	208	11	10	31	52	34	93	2	129	75	9	37	121
+45 mins.	10	123	57	190	5	12	16	33	30	61	1	92	93	9	26	128
Total Volume	41	527	227	795	33	55	98	186	112	310	5	427	317	36	132	485
% App. Total	5.2	66.3	28.6		17.7	29.6	52.7		26.2	72.6	1.2		65.4	7.4	27.2	
PHF	.854	.902	.860	.951	.750	.625	.790	.775	.824	.833	.625	.828	.852	.900	.892	.905

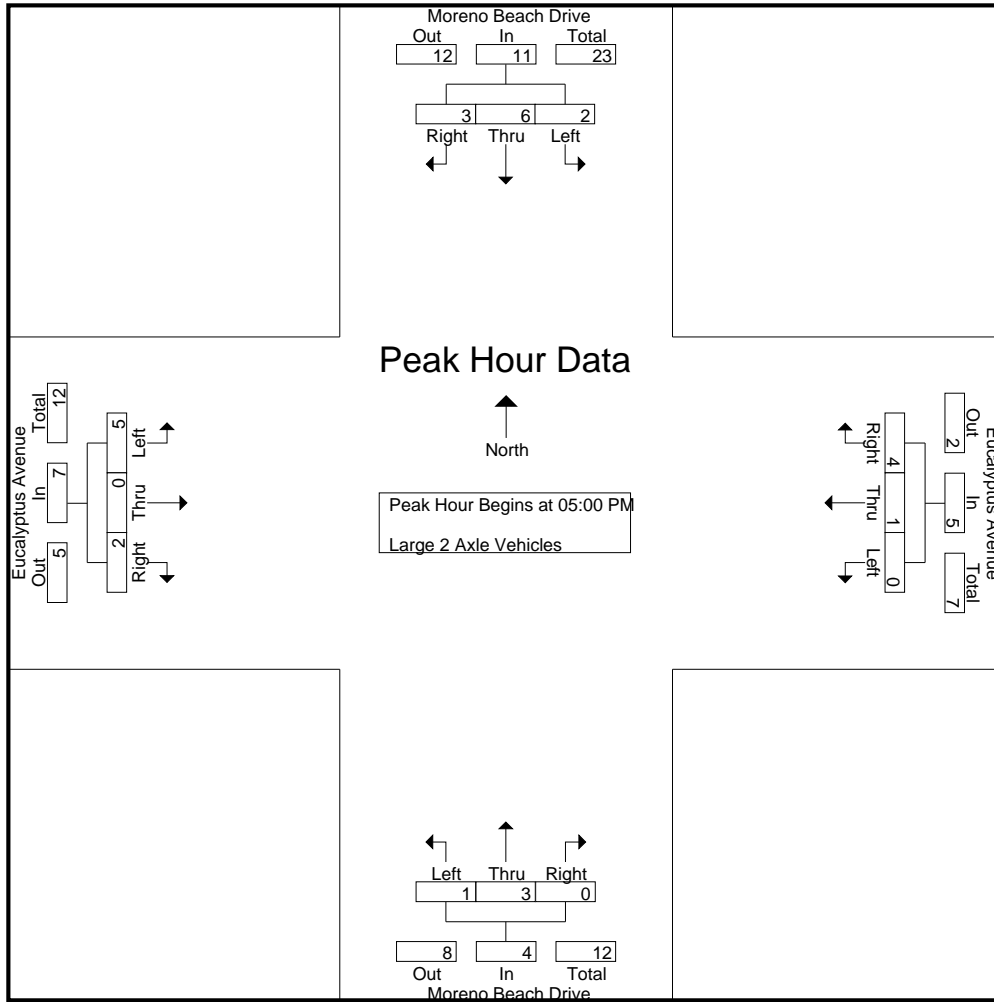
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	1	1	2	1	3	0	4	1	0	0	1	7
04:15 PM	4	2	0	6	0	0	0	0	0	2	0	2	0	0	1	1	9
04:30 PM	1	1	0	2	0	0	2	2	0	0	0	0	0	0	0	0	4
04:45 PM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	2
Total	5	3	0	8	0	1	4	5	2	5	0	7	1	0	1	2	22
05:00 PM	1	1	1	3	0	0	3	3	0	1	0	1	1	0	0	1	8
05:15 PM	1	2	0	3	0	0	1	1	0	1	0	1	1	0	1	2	7
05:30 PM	0	1	2	3	0	0	0	0	0	0	0	0	1	0	1	2	5
05:45 PM	0	2	0	2	0	1	0	1	1	1	0	2	2	0	0	2	7
Total	2	6	3	11	0	1	4	5	1	3	0	4	5	0	2	7	27
Grand Total	7	9	3	19	0	2	8	10	3	8	0	11	6	0	3	9	49
Apprch %	36.8	47.4	15.8		0	20	80		27.3	72.7	0		66.7	0	33.3		
Total %	14.3	18.4	6.1	38.8	0	4.1	16.3	20.4	6.1	16.3	0	22.4	12.2	0	6.1	18.4	

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	1	1	3	0	0	3	3	0	1	0	1	1	0	0	1	8
05:15 PM	1	2	0	3	0	0	1	1	0	1	0	1	1	0	1	2	7
05:30 PM	0	1	2	3	0	0	0	0	0	0	0	0	1	0	1	2	5
05:45 PM	0	2	0	2	0	1	0	1	1	1	0	2	2	0	0	2	7
Total Volume	2	6	3	11	0	1	4	5	1	3	0	4	5	0	2	7	27
% App. Total	18.2	54.5	27.3		0	20	80		25	75	0		71.4	0	28.6		
PHF	.500	.750	.375	.917	.000	.250	.333	.417	.250	.750	.000	.500	.625	.000	.500	.875	.844



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	1	1	1	3	0	0	3	3	0	1	0	1	1	0	0	1
+15 mins.	1	2	0	3	0	0	1	1	0	1	0	1	1	0	1	2
+30 mins.	0	1	2	3	0	0	0	0	0	0	0	0	1	0	1	2
+45 mins.	0	2	0	2	0	1	0	1	1	1	0	2	2	0	0	2
Total Volume	2	6	3	11	0	1	4	5	1	3	0	4	5	0	2	7
% App. Total	18.2	54.5	27.3		0	20	80		25	75	0		71.4	0	28.6	
PHF	.500	.750	.375	.917	.000	.250	.333	.417	.250	.750	.000	.500	.625	.000	.500	.875

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

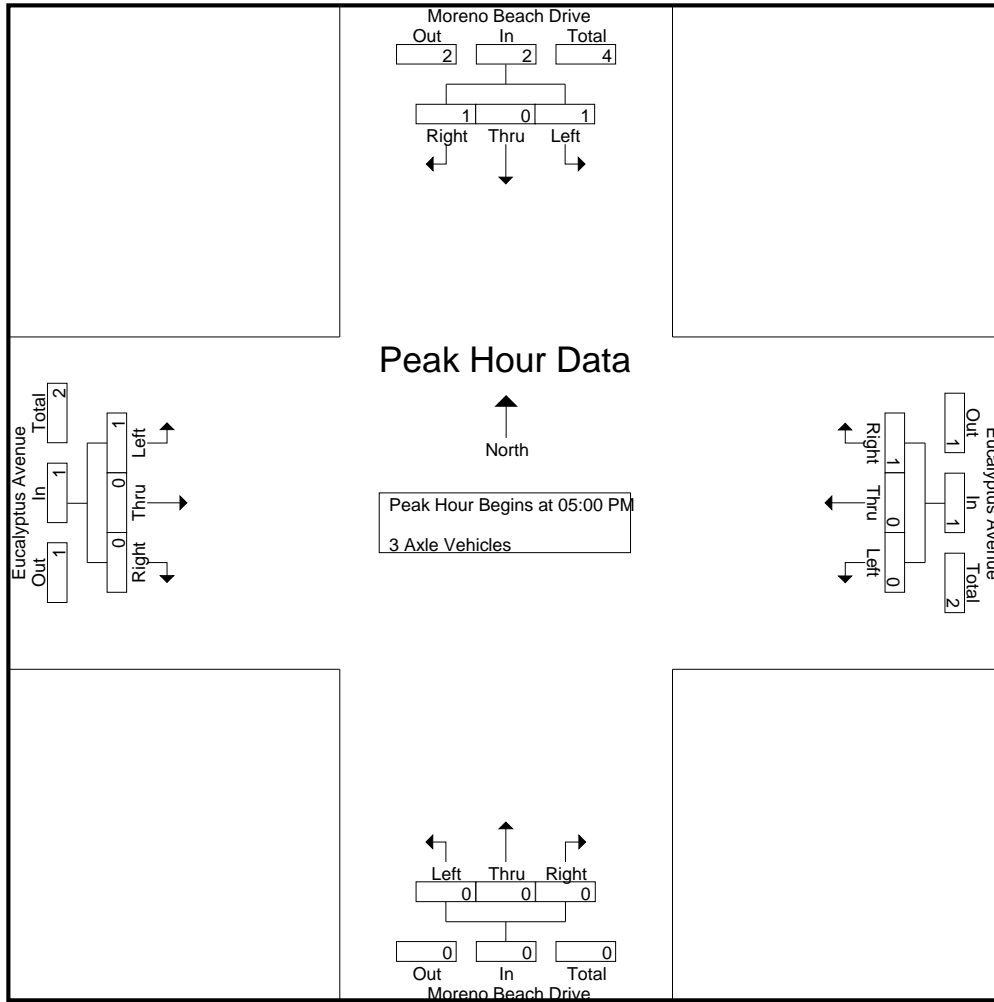
Groups Printed- 3 Axle Vehicles

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	1	0	0	1	0	0	1	1	0	0	0	0	1	0	0	1	3
Total	1	0	1	2	0	1	1	2	0	0	0	0	1	1	0	2	6
05:00 PM	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	1	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	1	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	2	0	0	1	1	0	0	0	0	1	0	0	1	4
Grand Total	2	0	2	4	0	1	2	3	0	0	0	0	2	1	0	3	10
Apprch %	50	0	50		0	33.3	66.7		0	0	0		66.7	33.3	0		
Total %	20	0	20	40	0	10	20	30	0	0	0	0	20	10	0	30	

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	1	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	1	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	2	0	0	1	1	0	0	0	0	1	0	0	1	4
% App. Total	50	0	50		0	0	100		0	0	0		100	0	0		
PHF	.250	.000	.250	.500	.000	.000	.250	.250	.000	.000	.000	.000	.250	.000	.000	.250	.500

City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	2	0	0	1	1	0	0	0	0	1	0	0	1
% App. Total	50	0	50		0	0	100		0	0	0		100	0	0	
PHF	.250	.000	.250	.500	.000	.000	.250	.250	.000	.000	.000	.000	.250	.000	.000	.250

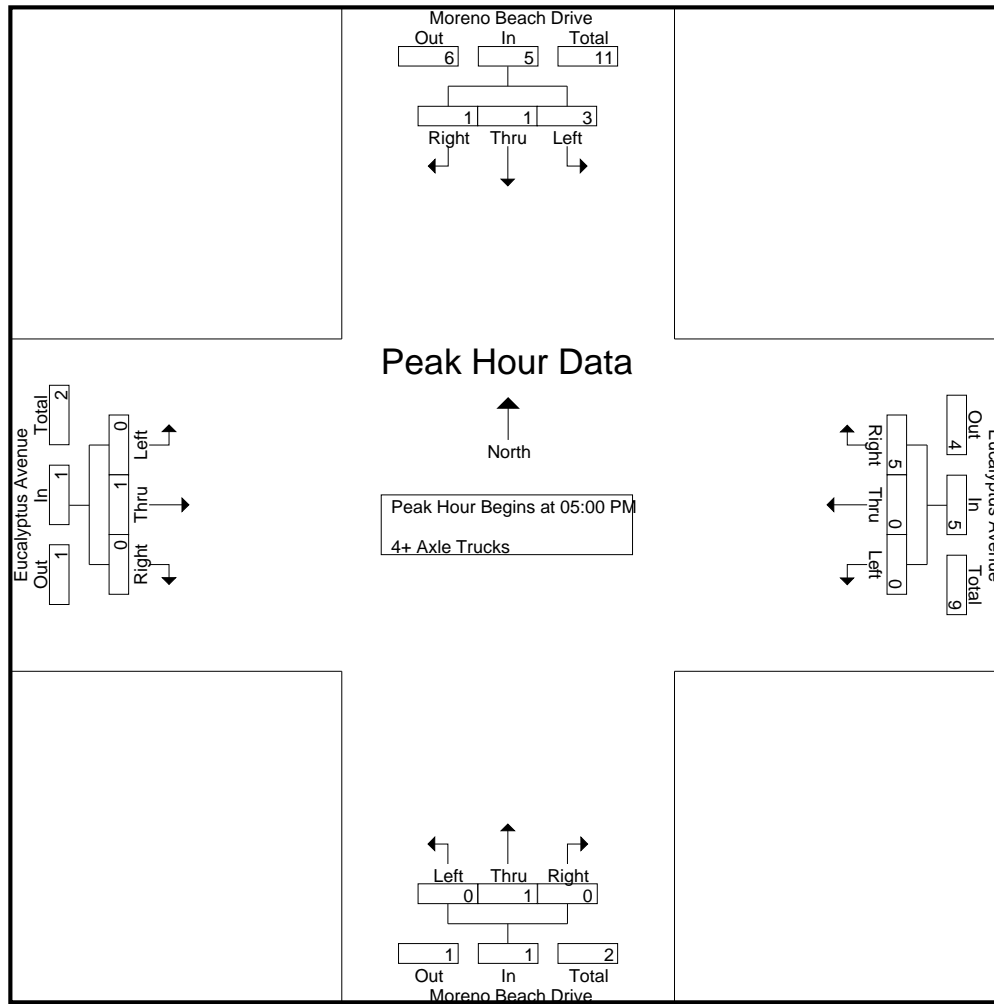
City of Moreno Valley
 N/S: Moreno Beach Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 10_MRV_Mo Bea_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	1	0	2	0	0	1	1	0	0	1	1	0	0	0	0	4
Total	1	1	0	2	0	0	2	2	0	0	1	1	0	0	0	0	5
05:00 PM	2	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	1	1	0	0	2	2	0	1	0	1	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:45 PM	1	1	0	2	0	0	1	1	0	0	0	0	0	1	0	1	4
Total	3	1	1	5	0	0	5	5	0	1	0	1	0	1	0	1	12
Grand Total	4	2	1	7	0	0	7	7	0	1	1	2	0	1	0	1	17
Apprch %	57.1	28.6	14.3		0	0	100		0	50	50		0	100	0		
Total %	23.5	11.8	5.9	41.2	0	0	41.2	41.2	0	5.9	5.9	11.8	0	5.9	0	5.9	

Start Time	Moreno Beach Drive Southbound				Eucalyptus Avenue Westbound				Moreno Beach Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	1	1	0	0	2	2	0	1	0	1	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:45 PM	1	1	0	2	0	0	1	1	0	0	0	0	0	1	0	1	4
Total Volume	3	1	1	5	0	0	5	5	0	1	0	1	0	1	0	1	12
% App. Total	60	20	20		0	0	100		0	100	0		0	100	0		
PHF	.375	.250	.250	.625	.000	.000	.625	.625	.000	.250	.000	.250	.000	.250	.000	.250	.750



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	2	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	1	0	0	2	2	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	1	1	0	2	0	0	1	1	0	0	0	0	0	1	0	1
Total Volume	3	1	1	5	0	0	5	5	0	1	0	1	0	1	0	1
% App. Total	60	20	20		0	0	100		0	100	0		0	100	0	
PHF	.375	.250	.250	.625	.000	.000	.625	.625	.000	.250	.000	.250	.000	.250	.000	.250

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

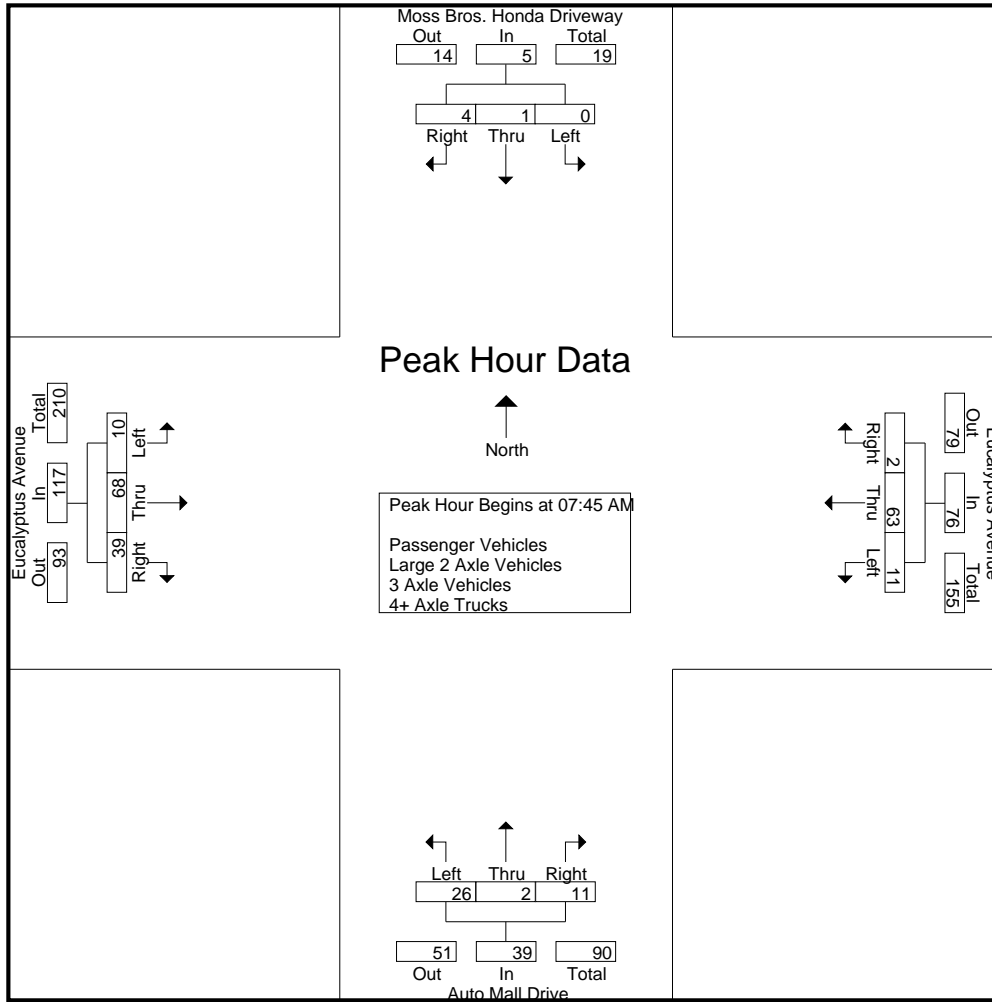
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	2	12	0	14	1	0	2	3	0	13	7	20	37
07:15 AM	0	0	0	0	3	9	0	12	3	1	6	10	1	12	3	16	38
07:30 AM	0	0	0	0	2	14	0	16	3	0	4	7	2	10	6	18	41
07:45 AM	0	0	0	0	3	16	0	19	8	1	2	11	1	17	14	32	62
Total	0	0	0	0	10	51	0	61	15	2	14	31	4	52	30	86	178
08:00 AM	0	1	0	1	5	15	0	20	5	0	3	8	4	21	11	36	65
08:15 AM	0	0	1	1	1	18	2	21	8	1	4	13	4	19	9	32	67
08:30 AM	0	0	3	3	2	14	0	16	5	0	2	7	1	11	5	17	43
08:45 AM	0	0	2	2	2	12	0	14	7	1	1	9	3	13	6	22	47
Total	0	1	6	7	10	59	2	71	25	2	10	37	12	64	31	107	222
Grand Total	0	1	6	7	20	110	2	132	40	4	24	68	16	116	61	193	400
Apprch %	0	14.3	85.7		15.2	83.3	1.5		58.8	5.9	35.3		8.3	60.1	31.6		
Total %	0	0.2	1.5	1.8	5	27.5	0.5	33	10	1	6	17	4	29	15.2	48.2	
Passenger Vehicles	0	1	6	7	18	99	2	119	40	4	24	68	16	102	60	178	372
% Passenger Vehicles	0	100	100	100	90	90	100	90.2	100	100	100	100	100	87.9	98.4	92.2	93
Large 2 Axle Vehicles	0	0	0	0	1	3	0	4	0	0	0	0	0	4	1	5	9
% Large 2 Axle Vehicles	0	0	0	0	5	2.7	0	3	0	0	0	0	0	3.4	1.6	2.6	2.2
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0.5	0.2
4+ Axle Trucks	0	0	0	0	1	8	0	9	0	0	0	0	0	9	0	9	18
% 4+ Axle Trucks	0	0	0	0	5	7.3	0	6.8	0	0	0	0	0	7.8	0	4.7	4.5

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	3	16	0	19	8	1	2	11	1	17	14	32	62
08:00 AM	0	1	0	1	5	15	0	20	5	0	3	8	4	21	11	36	65
08:15 AM	0	0	1	1	1	18	2	21	8	1	4	13	4	19	9	32	67
08:30 AM	0	0	3	3	2	14	0	16	5	0	2	7	1	11	5	17	43
Total Volume	0	1	4	5	11	63	2	76	26	2	11	39	10	68	39	117	237
% App. Total	0	20	80		14.5	82.9	2.6		66.7	5.1	28.2		8.5	58.1	33.3		
PHF	.000	.250	.333	.417	.550	.875	.250	.905	.813	.500	.688	.750	.625	.810	.696	.813	.884

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 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:

	08:00 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	1	0	1	2	14	0	16	3	0	4	7	2	10	6	18
+15 mins.	0	0	1	1	3	16	0	19	8	1	2	11	1	17	14	32
+30 mins.	0	0	3	3	5	15	0	20	5	0	3	8	4	21	11	36
+45 mins.	0	0	2	2	1	18	2	21	8	1	4	13	4	19	9	32
Total Volume	0	1	6	7	11	63	2	76	24	2	13	39	11	67	40	118
% App. Total	0	14.3	85.7		14.5	82.9	2.6		61.5	5.1	33.3		9.3	56.8	33.9	
PHF	.000	.250	.500	.583	.550	.875	.250	.905	.750	.500	.813	.750	.688	.798	.714	.819

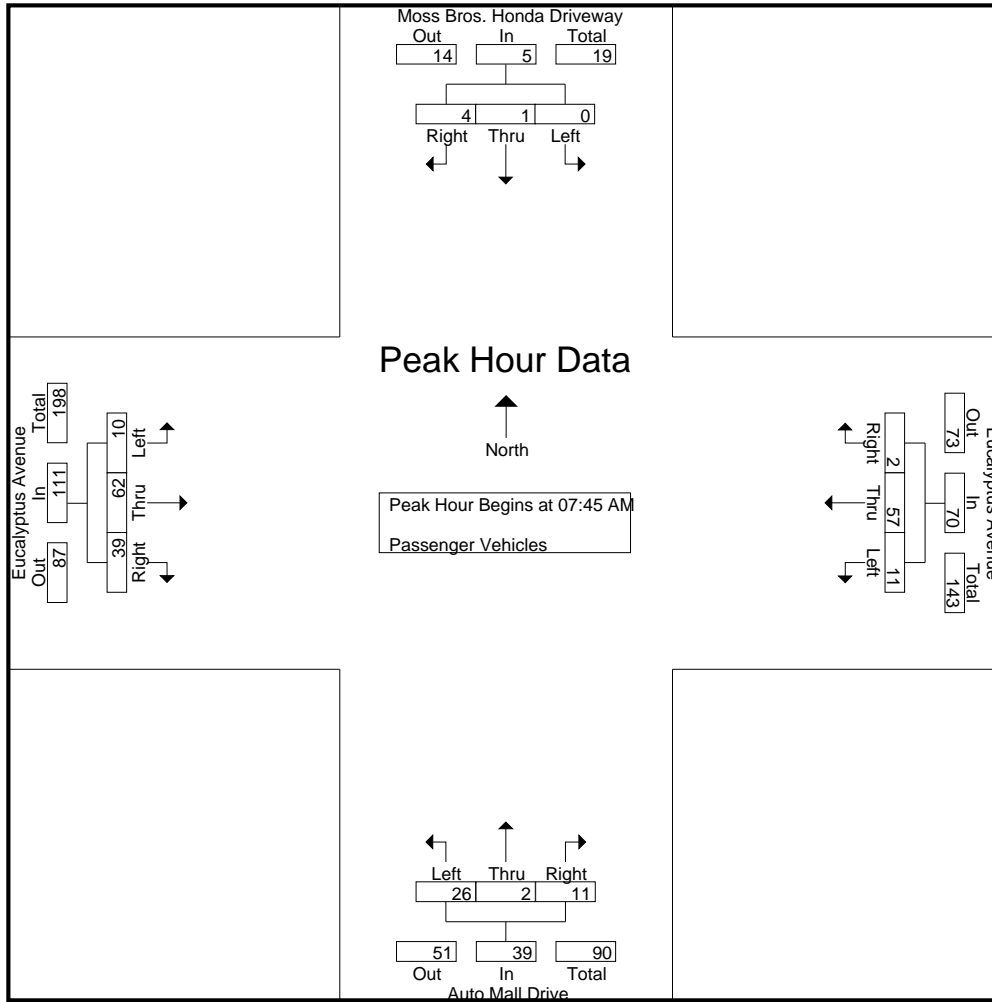
City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	2	10	0	12	1	0	2	3	0	11	7	18	33
07:15 AM	0	0	0	0	2	9	0	11	3	1	6	10	1	10	3	14	35
07:30 AM	0	0	0	0	1	13	0	14	3	0	4	7	2	8	6	16	37
07:45 AM	0	0	0	0	3	14	0	17	8	1	2	11	1	15	14	30	58
Total	0	0	0	0	8	46	0	54	15	2	14	31	4	44	30	78	163
08:00 AM	0	1	0	1	5	15	0	20	5	0	3	8	4	18	11	33	62
08:15 AM	0	0	1	1	1	16	2	19	8	1	4	13	4	18	9	31	64
08:30 AM	0	0	3	3	2	12	0	14	5	0	2	7	1	11	5	17	41
08:45 AM	0	0	2	2	2	10	0	12	7	1	1	9	3	11	5	19	42
Total	0	1	6	7	10	53	2	65	25	2	10	37	12	58	30	100	209
Grand Total	0	1	6	7	18	99	2	119	40	4	24	68	16	102	60	178	372
Apprch %	0	14.3	85.7		15.1	83.2	1.7		58.8	5.9	35.3		9	57.3	33.7		
Total %	0	0.3	1.6	1.9	4.8	26.6	0.5	32	10.8	1.1	6.5	18.3	4.3	27.4	16.1	47.8	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	3	14	0	17	8	1	2	11	1	15	14	30	58
08:00 AM	0	1	0	1	5	15	0	20	5	0	3	8	4	18	11	33	62
08:15 AM	0	0	1	1	1	16	2	19	8	1	4	13	4	18	9	31	64
08:30 AM	0	0	3	3	2	12	0	14	5	0	2	7	1	11	5	17	41
Total Volume	0	1	4	5	11	57	2	70	26	2	11	39	10	62	39	111	225
% App. Total	0	20	80		15.7	81.4	2.9		66.7	5.1	28.2		9	55.9	35.1		
PHF	.000	.250	.333	.417	.550	.891	.250	.875	.813	.500	.688	.750	.625	.861	.696	.841	.879



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	3	14	0	17	8	1	2	11	1	15	14	30
+15 mins.	0	1	0	1	5	15	0	20	5	0	3	8	4	18	11	33
+30 mins.	0	0	1	1	1	16	2	19	8	1	4	13	4	18	9	31
+45 mins.	0	0	3	3	2	12	0	14	5	0	2	7	1	11	5	17
Total Volume	0	1	4	5	11	57	2	70	26	2	11	39	10	62	39	111
% App. Total	0	20	80		15.7	81.4	2.9		66.7	5.1	28.2		9	55.9	35.1	
PHF	.000	.250	.333	.417	.550	.891	.250	.875	.813	.500	.688	.750	.625	.861	.696	.841

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

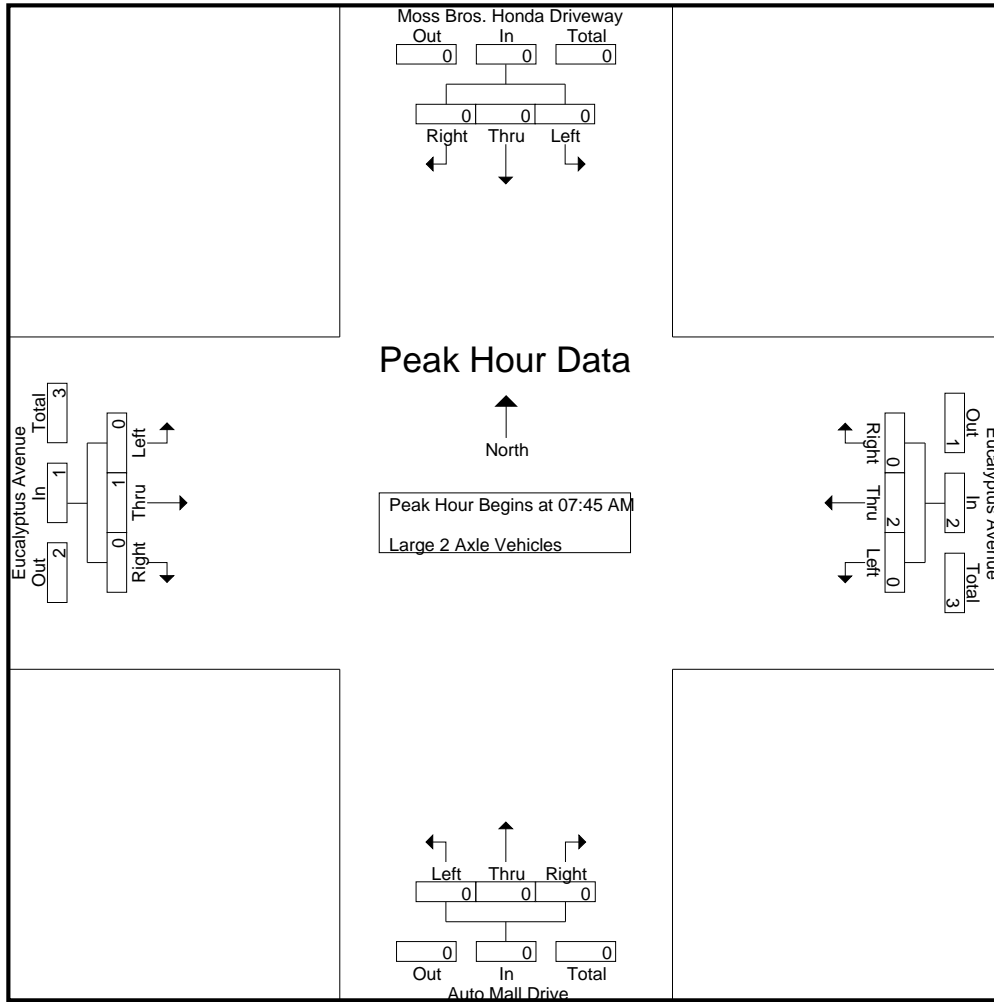
Groups Printed- Large 2 Axle Vehicles

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	1	2	0	3	0	0	0	0	0	3	0	3	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	0	0	0	0	1	0	1	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	1	1	2	2
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	3
Grand Total	0	0	0	0	1	3	0	4	0	0	0	0	0	4	1	5	9
Apprch %	0	0	0		25	75	0		0	0	0		0	80	20		
Total %	0	0	0		11.1	33.3	0	44.4	0	0	0		0	44.4	11.1	55.6	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	1	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
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.375

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	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	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

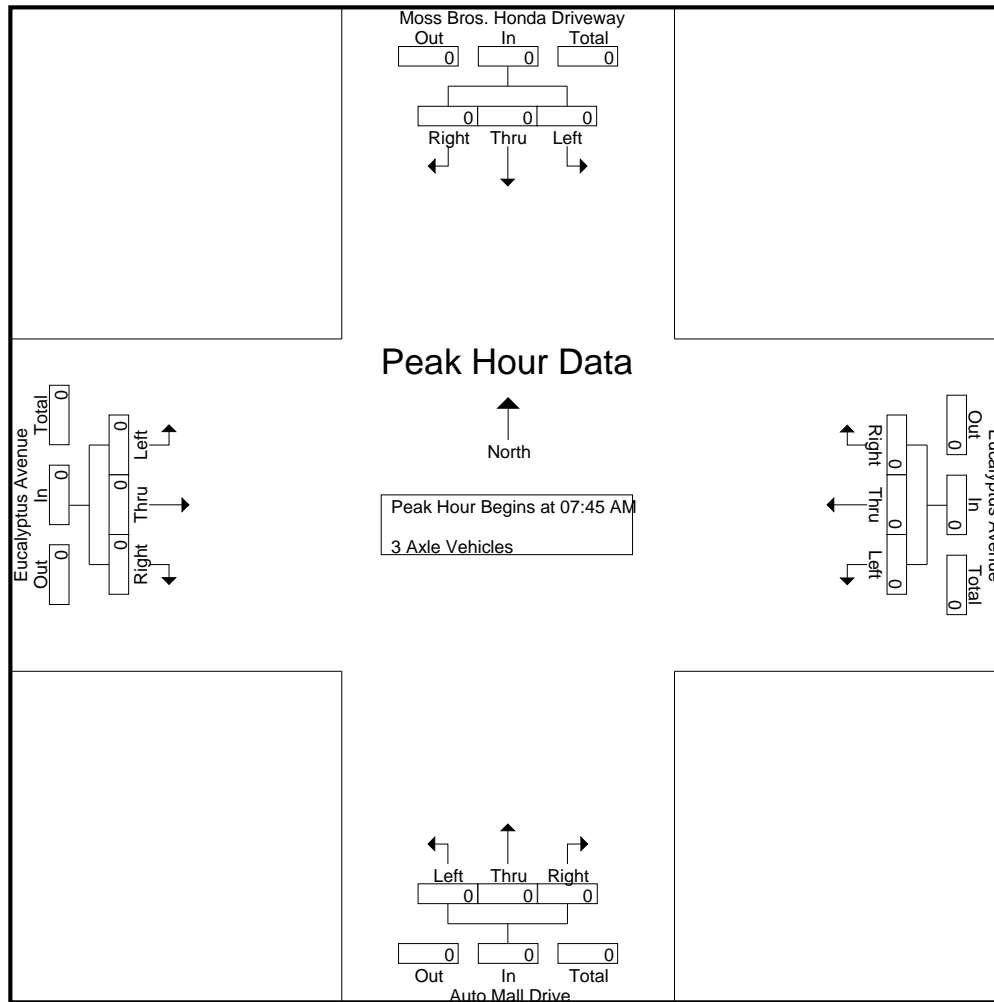
Groups Printed- 3 Axle Vehicles

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

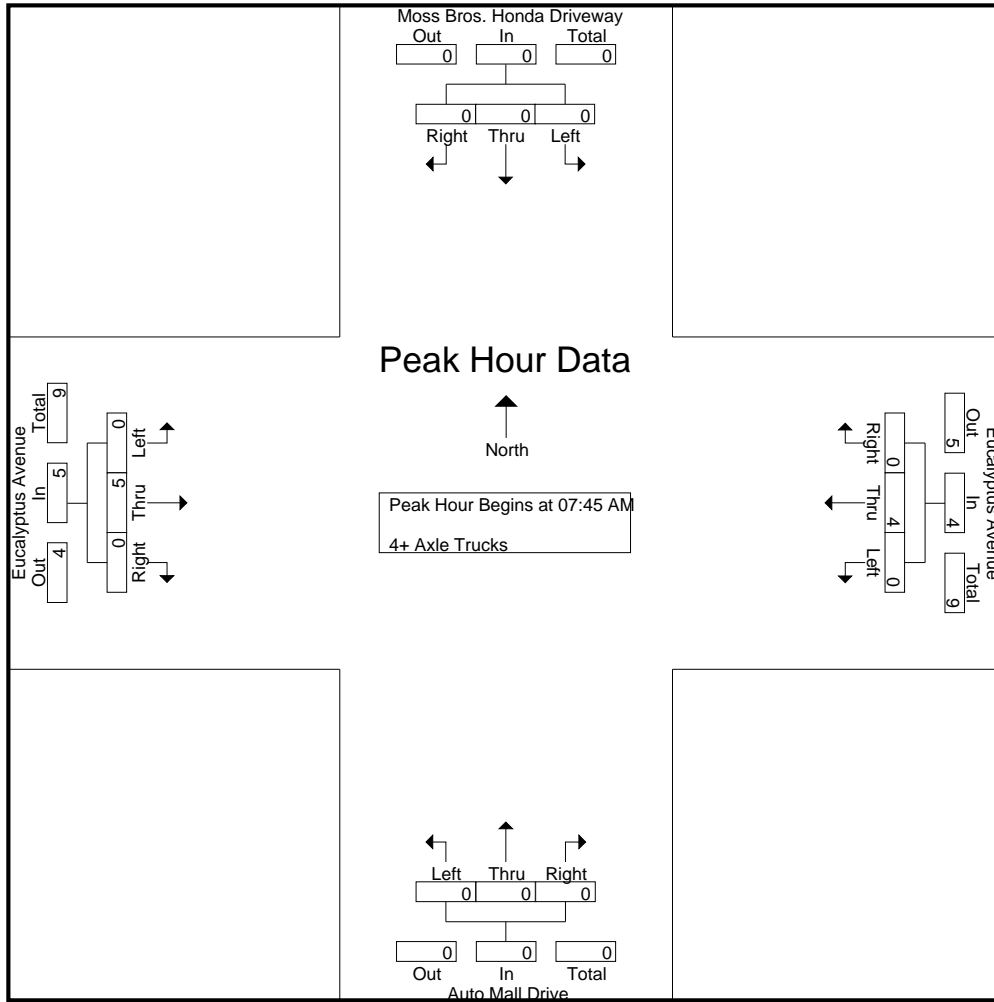
Groups Printed- 4+ Axle Trucks

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
07:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	1	3	0	4	0	0	0	0	0	5	0	5	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	5	0	5	0	0	0	0	0	4	0	4	9
Grand Total	0	0	0	0	1	8	0	9	0	0	0	0	0	9	0	9	18
Apprch %	0	0	0		11.1	88.9	0		0	0	0		0	100	0		
Total %	0	0	0		5.6	44.4	0	50	0	0	0		0	50	0	50	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	5	0	5	9
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.000	.417	.750

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	5	0	5
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.000	.417

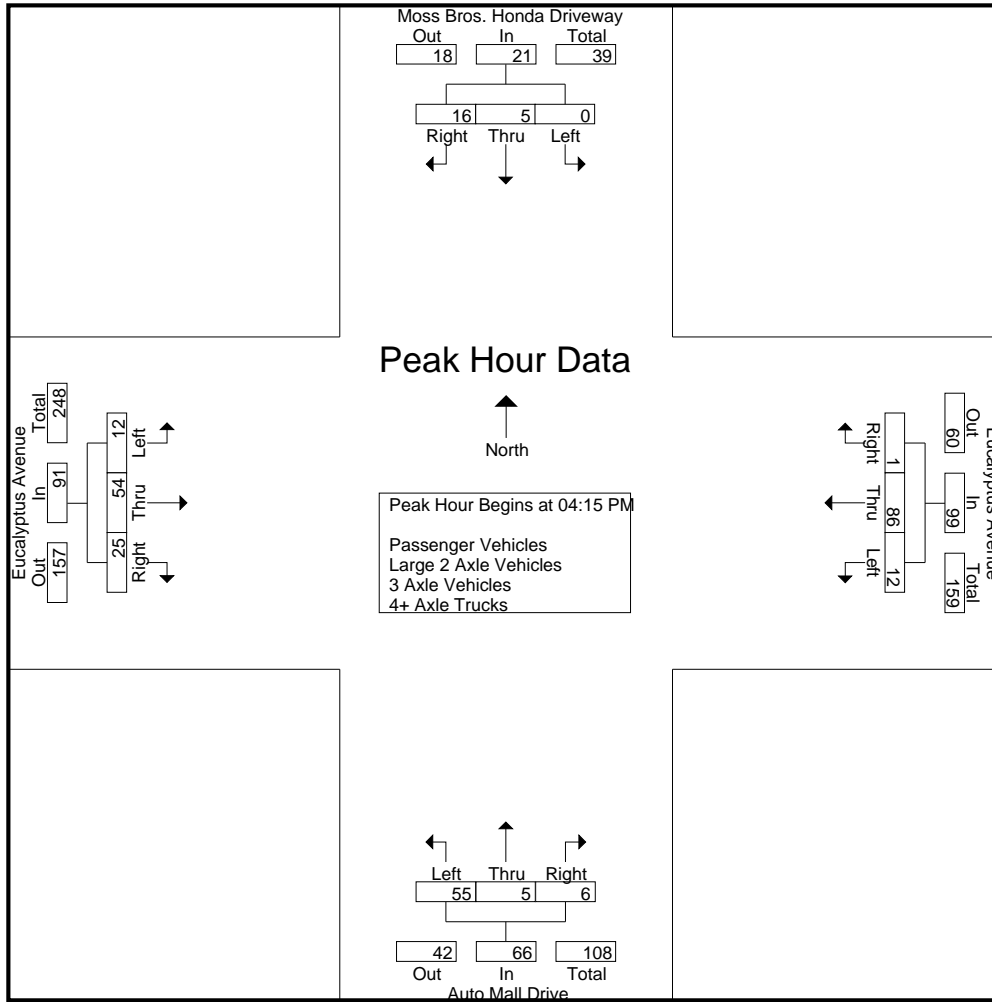
City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	1	10	11	3	21	2	26	10	1	4	15	1	10	5	16	68
04:15 PM	0	2	3	5	1	25	0	26	13	2	2	17	6	11	5	22	70
04:30 PM	0	1	2	3	4	19	0	23	12	2	0	14	2	10	7	19	59
04:45 PM	0	0	8	8	3	16	0	19	13	0	2	15	3	18	1	22	64
Total	0	4	23	27	11	81	2	94	48	5	8	61	12	49	18	79	261
05:00 PM	0	2	3	5	4	26	1	31	17	1	2	20	1	15	12	28	84
05:15 PM	0	0	0	0	6	17	0	23	12	0	2	14	2	9	6	17	54
05:30 PM	0	2	5	7	4	16	0	20	10	1	6	17	2	10	4	16	60
05:45 PM	1	1	2	4	0	19	1	20	9	1	6	16	2	19	3	24	64
Total	1	5	10	16	14	78	2	94	48	3	16	67	7	53	25	85	262
Grand Total	1	9	33	43	25	159	4	188	96	8	24	128	19	102	43	164	523
Apprch %	2.3	20.9	76.7		13.3	84.6	2.1		75	6.2	18.8		11.6	62.2	26.2		
Total %	0.2	1.7	6.3	8.2	4.8	30.4	0.8	35.9	18.4	1.5	4.6	24.5	3.6	19.5	8.2	31.4	
Passenger Vehicles	1	9	33	43	25	144	4	173	93	8	24	125	18	90	39	147	488
% Passenger Vehicles	100	100	100	100	100	90.6	100	92	96.9	100	100	97.7	94.7	88.2	90.7	89.6	93.3
Large 2 Axle Vehicles	0	0	0	0	0	5	0	5	3	0	0	3	1	2	4	7	15
% Large 2 Axle Vehicles	0	0	0	0	0	3.1	0	2.7	3.1	0	0	2.3	5.3	2	9.3	4.3	2.9
3 Axle Vehicles	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
% 3 Axle Vehicles	0	0	0	0	0	1.9	0	1.6	0	0	0	0	0	2.9	0	1.8	1.1
4+ Axle Trucks	0	0	0	0	0	7	0	7	0	0	0	0	0	7	0	7	14
% 4+ Axle Trucks	0	0	0	0	0	4.4	0	3.7	0	0	0	0	0	6.9	0	4.3	2.7

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	2	3	5	1	25	0	26	13	2	2	17	6	11	5	22	70
04:30 PM	0	1	2	3	4	19	0	23	12	2	0	14	2	10	7	19	59
04:45 PM	0	0	8	8	3	16	0	19	13	0	2	15	3	18	1	22	64
05:00 PM	0	2	3	5	4	26	1	31	17	1	2	20	1	15	12	28	84
Total Volume	0	5	16	21	12	86	1	99	55	5	6	66	12	54	25	91	277
% App. Total	0	23.8	76.2		12.1	86.9	1		83.3	7.6	9.1		13.2	59.3	27.5		
PHF	.000	.625	.500	.656	.750	.827	.250	.798	.809	.625	.750	.825	.500	.750	.521	.813	.824



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				05:00 PM				04:15 PM			
+0 mins.	0	1	10	11	1	25	0	26	17	1	2	20	6	11	5	22
+15 mins.	0	2	3	5	4	19	0	23	12	0	2	14	2	10	7	19
+30 mins.	0	1	2	3	3	16	0	19	10	1	6	17	3	18	1	22
+45 mins.	0	0	8	8	4	26	1	31	9	1	6	16	1	15	12	28
Total Volume	0	4	23	27	12	86	1	99	48	3	16	67	12	54	25	91
% App. Total	0	14.8	85.2		12.1	86.9	1		71.6	4.5	23.9		13.2	59.3	27.5	
PHF	.000	.500	.575	.614	.750	.827	.250	.798	.706	.750	.667	.838	.500	.750	.521	.813

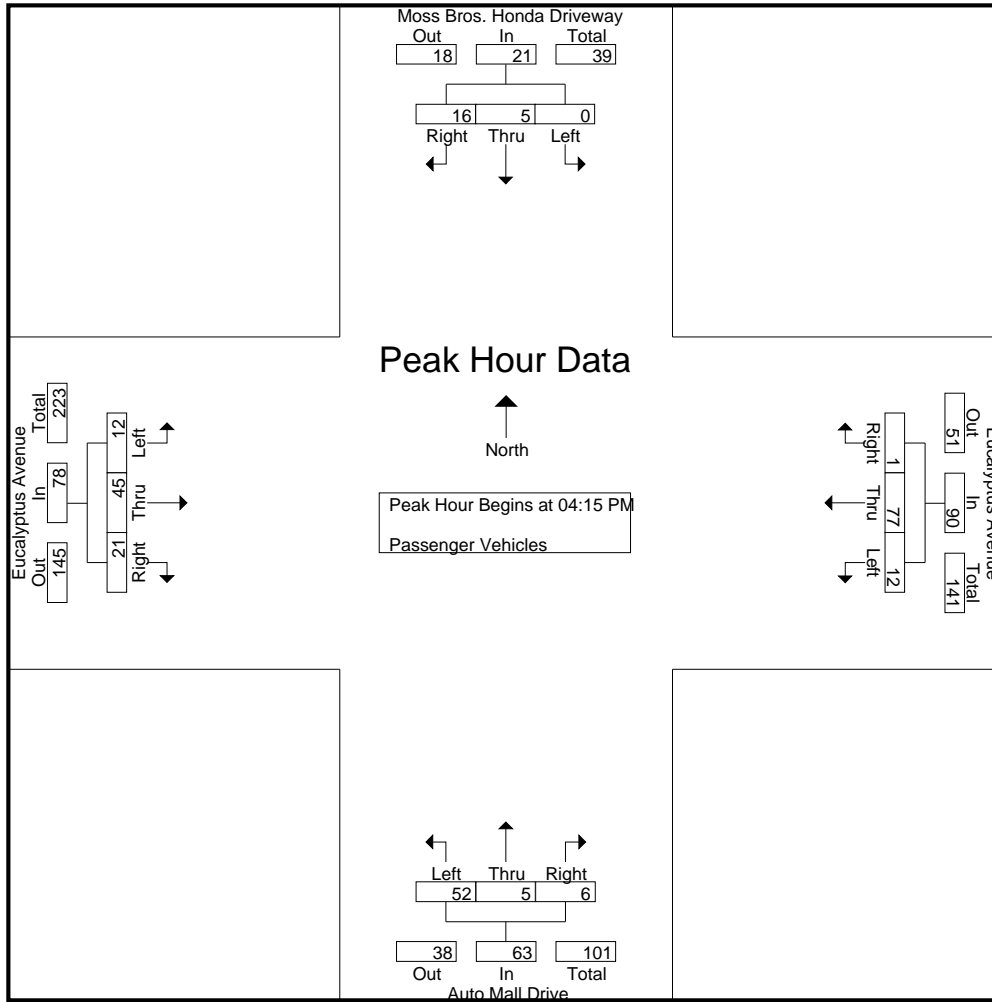
City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	1	10	11	3	19	2	24	10	1	4	15	1	9	5	15	65
04:15 PM	0	2	3	5	1	23	0	24	13	2	2	17	6	10	4	20	66
04:30 PM	0	1	2	3	4	18	0	22	10	2	0	12	2	9	5	16	53
04:45 PM	0	0	8	8	3	14	0	17	13	0	2	15	3	14	1	18	58
Total	0	4	23	27	11	74	2	87	46	5	8	59	12	42	15	69	242
05:00 PM	0	2	3	5	4	22	1	27	16	1	2	19	1	12	11	24	75
05:15 PM	0	0	0	0	6	15	0	21	12	0	2	14	1	9	6	16	51
05:30 PM	0	2	5	7	4	15	0	19	10	1	6	17	2	10	4	16	59
05:45 PM	1	1	2	4	0	18	1	19	9	1	6	16	2	17	3	22	61
Total	1	5	10	16	14	70	2	86	47	3	16	66	6	48	24	78	246
Grand Total	1	9	33	43	25	144	4	173	93	8	24	125	18	90	39	147	488
Apprch %	2.3	20.9	76.7		14.5	83.2	2.3		74.4	6.4	19.2		12.2	61.2	26.5		
Total %	0.2	1.8	6.8	8.8	5.1	29.5	0.8	35.5	19.1	1.6	4.9	25.6	3.7	18.4	8	30.1	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	2	3	5	1	23	0	24	13	2	2	17	6	10	4	20	66
04:30 PM	0	1	2	3	4	18	0	22	10	2	0	12	2	9	5	16	53
04:45 PM	0	0	8	8	3	14	0	17	13	0	2	15	3	14	1	18	58
05:00 PM	0	2	3	5	4	22	1	27	16	1	2	19	1	12	11	24	75
Total Volume	0	5	16	21	12	77	1	90	52	5	6	63	12	45	21	78	252
% App. Total	0	23.8	76.2		13.3	85.6	1.1		82.5	7.9	9.5		15.4	57.7	26.9		
PHF	.000	.625	.500	.656	.750	.837	.250	.833	.813	.625	.750	.829	.500	.804	.477	.813	.840



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	2	3	5	1	23	0	24	13	2	2	17	6	10	4	20
+15 mins.	0	1	2	3	4	18	0	22	10	2	0	12	2	9	5	16
+30 mins.	0	0	8	8	3	14	0	17	13	0	2	15	3	14	1	18
+45 mins.	0	2	3	5	4	22	1	27	16	1	2	19	1	12	11	24
Total Volume	0	5	16	21	12	77	1	90	52	5	6	63	12	45	21	78
% App. Total	0	23.8	76.2		13.3	85.6	1.1		82.5	7.9	9.5		15.4	57.7	26.9	
PHF	.000	.625	.500	.656	.750	.837	.250	.833	.813	.625	.750	.829	.500	.804	.477	.813

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

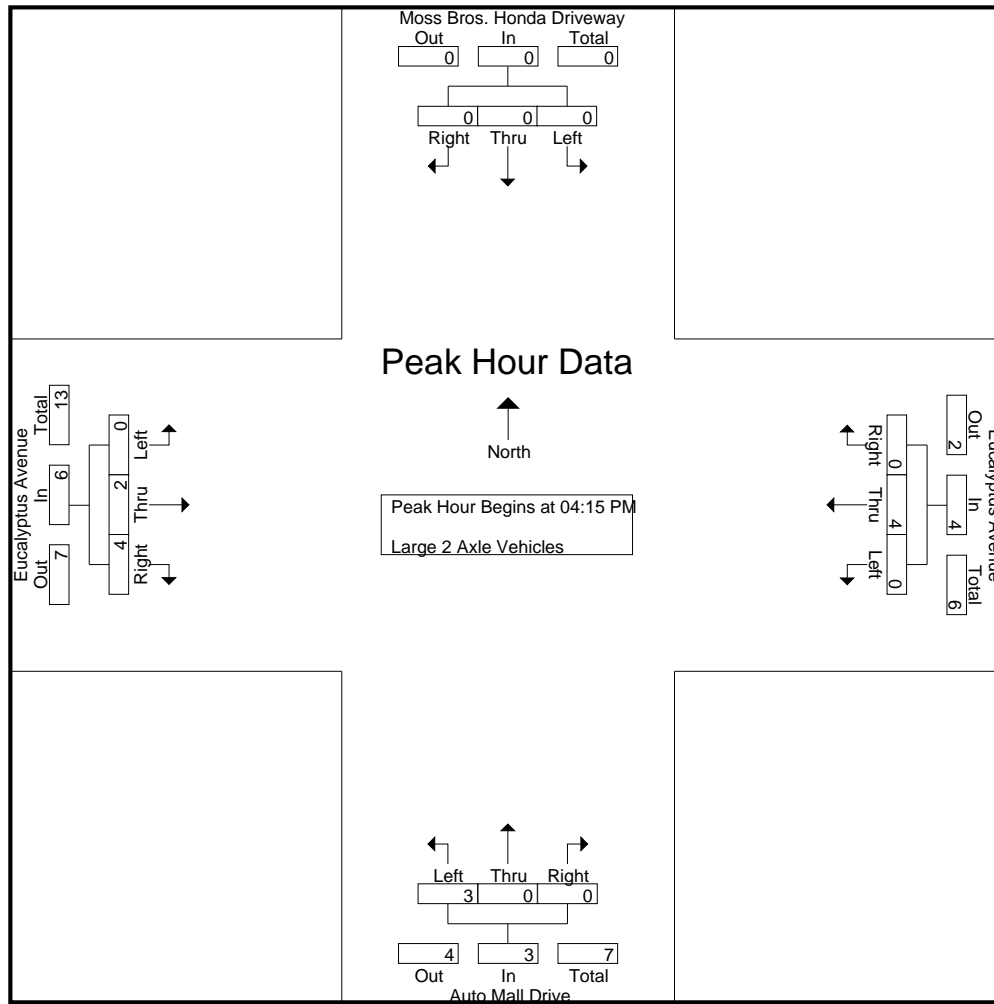
Groups Printed- Large 2 Axle Vehicles

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	3
04:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	0	1	2	3	6
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	3	2	0	0	2	0	2	3	5	10
05:00 PM	0	0	0	0	0	2	0	2	1	0	0	1	0	0	1	1	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	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	0	0	0	0	2	0	2	1	0	0	1	1	0	1	2	5
Grand Total	0	0	0	0	0	5	0	5	3	0	0	3	1	2	4	7	15
Apprch %	0	0	0		0	100	0		100	0	0		14.3	28.6	57.1		
Total %	0	0	0		0	33.3	0	33.3	20	0	0	20	6.7	13.3	26.7	46.7	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	3
04:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	0	1	2	3	6
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	2	0	2	1	0	0	1	0	0	1	1	4
Total Volume	0	0	0	0	0	4	0	4	3	0	0	3	0	2	4	6	13
% App. Total	0	0	0		0	100	0		100	0	0		0	33.3	66.7		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.375	.000	.000	.375	.000	.500	.500	.500	.542

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2
+15 mins.	0	0	0	0	0	1	0	1	2	0	0	2	0	1	2	3
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	2	0	2	1	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	4	0	4	3	0	0	3	0	2	4	6
% App. Total	0	0	0	0	0	100	0	0	100	0	0	0	0	33.3	66.7	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.375	.000	.000	.375	.000	.500	.500	.500

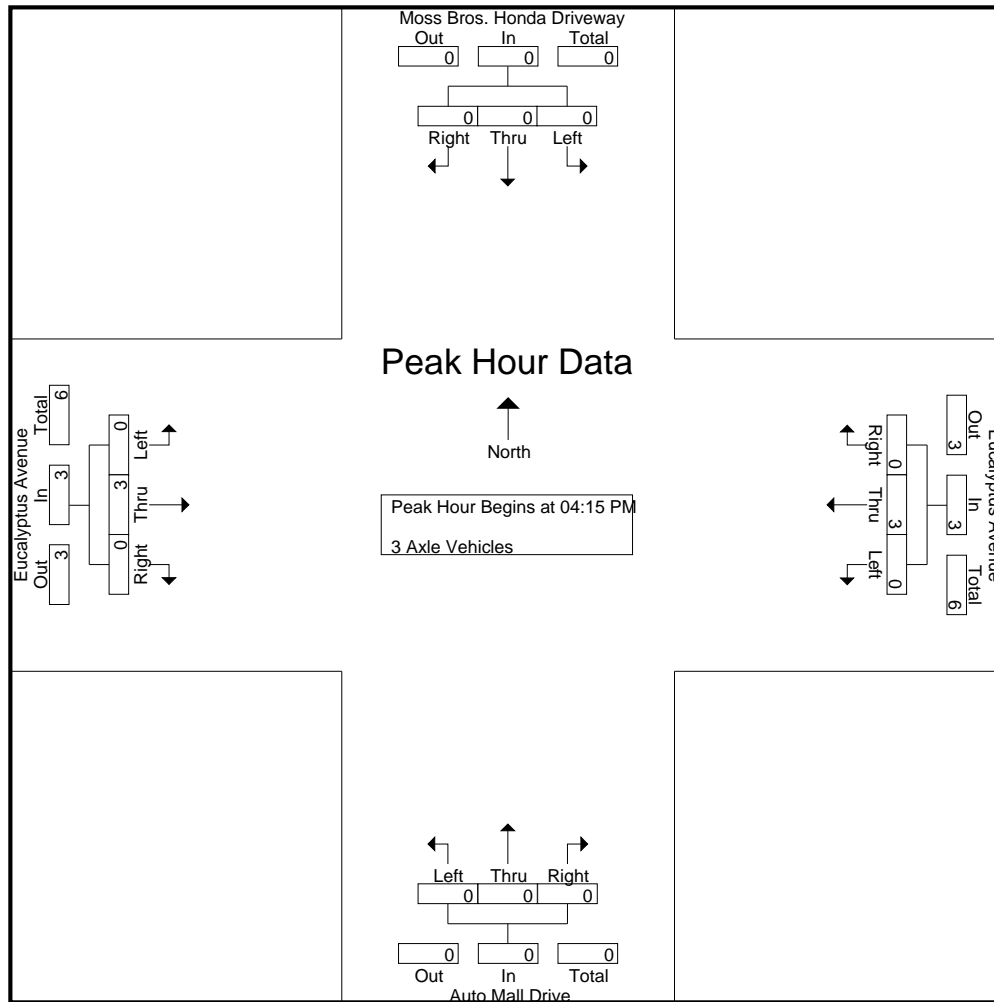
City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Grand Total	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0		0	50	0	50	0	0	0		0	50	0	50	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.375	.000	.375	.500



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	0	0	0	0	1	0	1	0	0	0	0	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	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.375	.000	.375

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

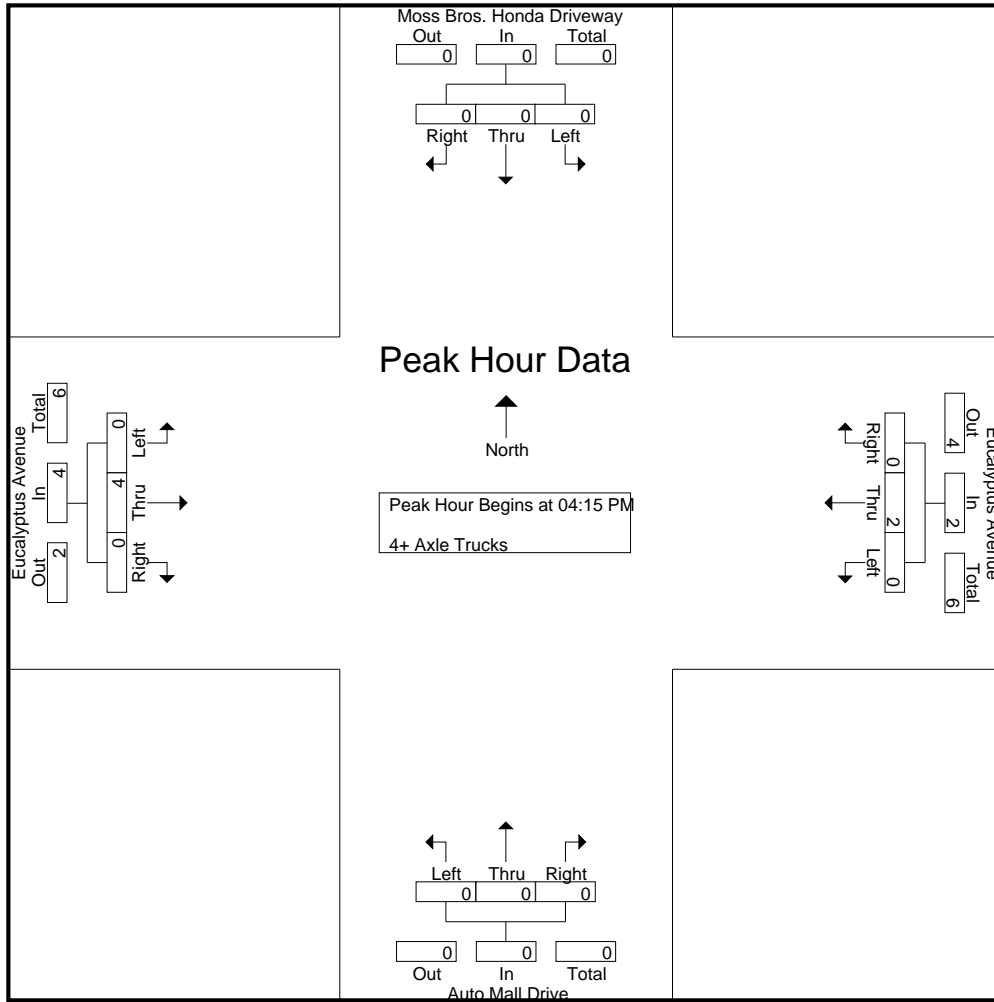
Groups Printed- 4+ Axle Trucks

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	5	0	5	0	0	0	0	0	4	0	4	9
Grand Total	0	0	0	0	0	7	0	7	0	0	0	0	0	7	0	7	14
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0		0	50	0	50	0	0	0		0	50	0	50	

Start Time	Moss Bros. Honda Driveway Southbound				Eucalyptus Avenue Westbound				Auto Mall Drive Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.500

City of Moreno Valley
 N/S: Auto Mall Drive
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 11_MRV_Auto Mall_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

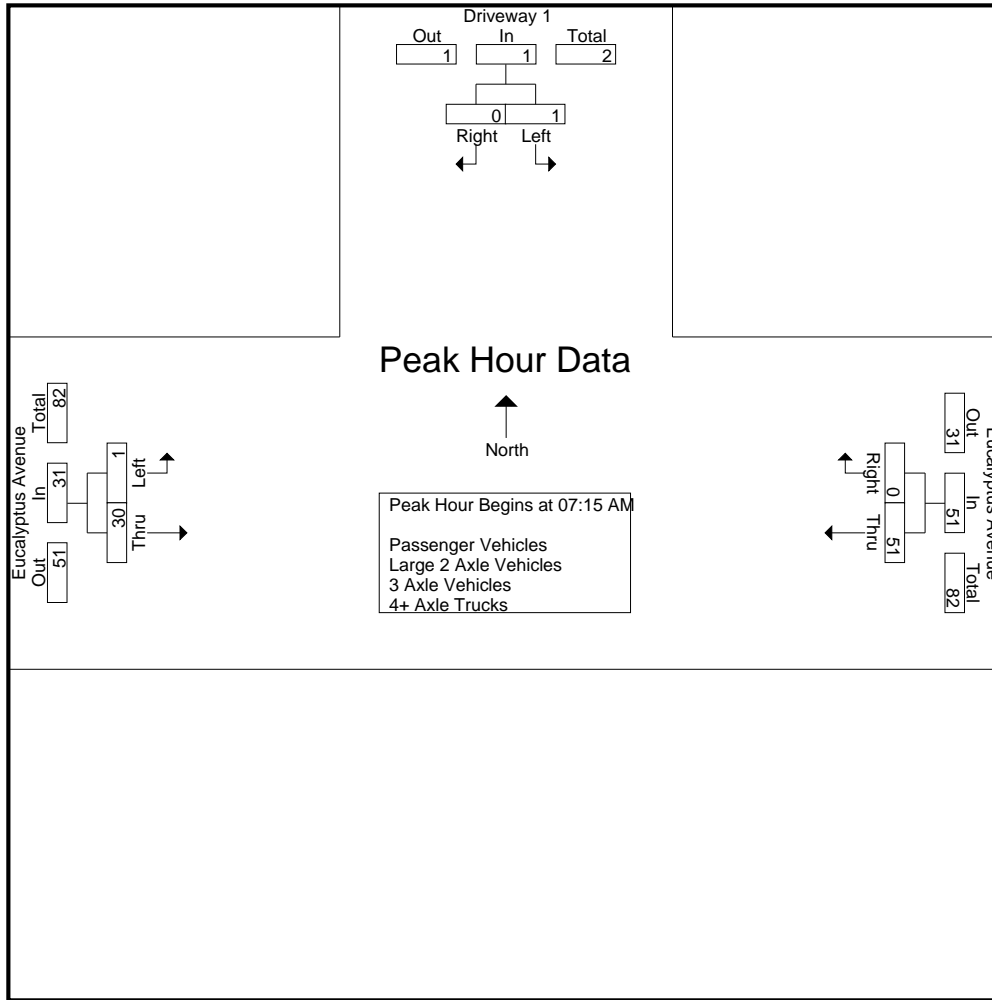
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	13	0	13	0	6	6	19
07:15 AM	1	0	1	11	0	11	1	9	10	22
07:30 AM	0	0	0	13	0	13	0	5	5	18
07:45 AM	0	0	0	11	0	11	0	9	9	20
Total	1	0	1	48	0	48	1	29	30	79
08:00 AM	0	0	0	16	0	16	0	7	7	23
08:15 AM	0	0	0	13	0	13	0	6	6	19
08:30 AM	0	0	0	8	0	8	0	4	4	12
08:45 AM	0	0	0	8	0	8	0	7	7	15
Total	0	0	0	45	0	45	0	24	24	69
Grand Total	1	0	1	93	0	93	1	53	54	148
Apprch %	100	0		100	0		1.9	98.1		
Total %	0.7	0	0.7	62.8	0	62.8	0.7	35.8	36.5	
Passenger Vehicles	0	0	0	89	0	89	0	48	48	137
% Passenger Vehicles	0	0	0	95.7	0	95.7	0	90.6	88.9	92.6
Large 2 Axle Vehicles	1	0	1	2	0	2	1	2	3	6
% Large 2 Axle Vehicles	100	0	100	2.2	0	2.2	100	3.8	5.6	4.1
3 Axle Vehicles	0	0	0	0	0	0	0	1	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	1.9	1.9	0.7
4+ Axle Trucks	0	0	0	2	0	2	0	2	2	4
% 4+ Axle Trucks	0	0	0	2.2	0	2.2	0	3.8	3.7	2.7

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	1	0	1	11	0	11	1	9	10	22
07:30 AM	0	0	0	13	0	13	0	5	5	18
07:45 AM	0	0	0	11	0	11	0	9	9	20
08:00 AM	0	0	0	16	0	16	0	7	7	23
Total Volume	1	0	1	51	0	51	1	30	31	83
% App. Total	100	0		100	0		3.2	96.8		
PHF	.250	.000	.250	.797	.000	.797	.250	.833	.775	.902

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 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:

	07:00 AM			07:30 AM			07:15 AM		
+0 mins.	0	0	0	13	0	13	1	9	10
+15 mins.	1	0	1	11	0	11	0	5	5
+30 mins.	0	0	0	16	0	16	0	9	9
+45 mins.	0	0	0	13	0	13	0	7	7
Total Volume	1	0	1	53	0	53	1	30	31
% App. Total	100	0		100	0		3.2	96.8	
PHF	.250	.000	.250	.828	.000	.828	.250	.833	.775

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	12	0	12	0	5	5	17
07:15 AM	0	0	0	9	0	9	0	8	8	17
07:30 AM	0	0	0	12	0	12	0	5	5	17
07:45 AM	0	0	0	11	0	11	0	7	7	18
Total	0	0	0	44	0	44	0	25	25	69
08:00 AM	0	0	0	16	0	16	0	7	7	23
08:15 AM	0	0	0	13	0	13	0	6	6	19
08:30 AM	0	0	0	8	0	8	0	4	4	12
08:45 AM	0	0	0	8	0	8	0	6	6	14
Total	0	0	0	45	0	45	0	23	23	68
Grand Total	0	0	0	89	0	89	0	48	48	137
Apprch %	0	0		100	0		0	100		
Total %	0	0		65	0	65	0	35	35	

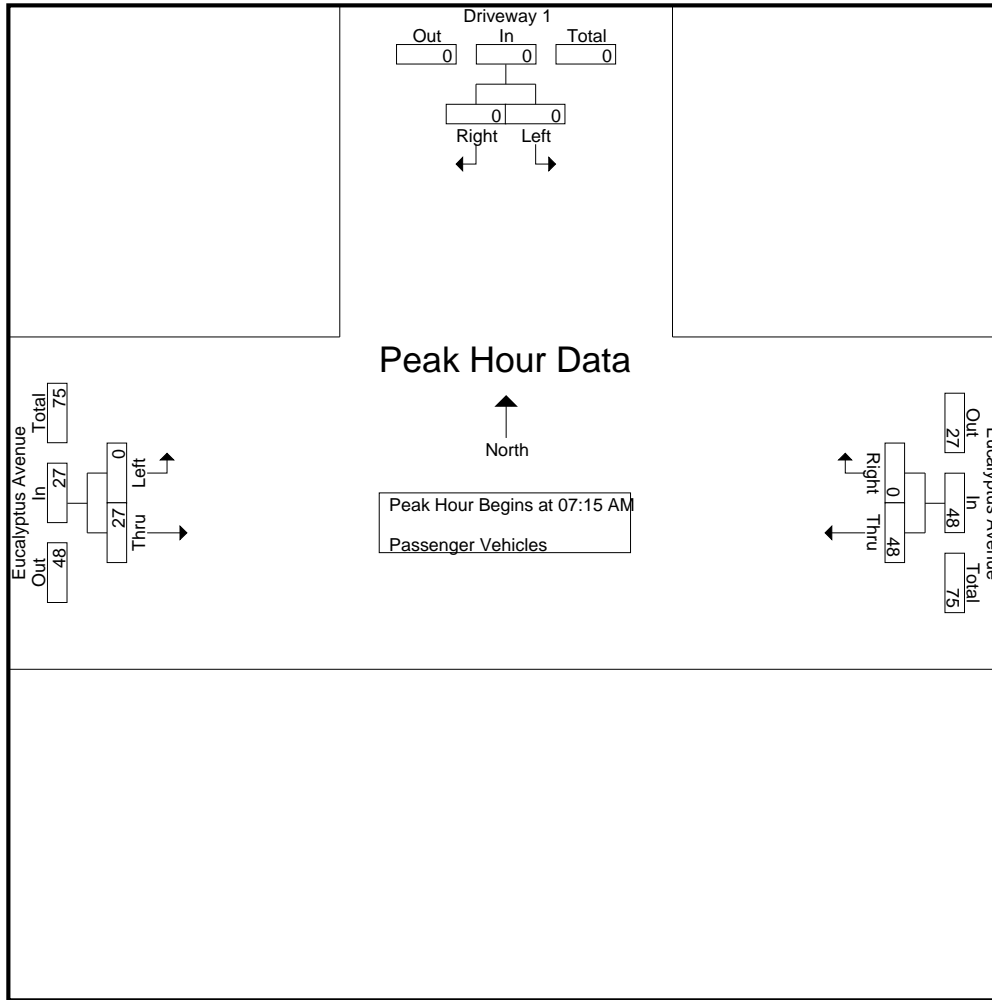
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	0	0	0	9	0	9	0	8	8	17
07:30 AM	0	0	0	12	0	12	0	5	5	17
07:45 AM	0	0	0	11	0	11	0	7	7	18
08:00 AM	0	0	0	16	0	16	0	7	7	23
Total Volume	0	0	0	48	0	48	0	27	27	75
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.750	.000	.750	.000	.844	.844	.815

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	9	0	9	0	8	8
+15 mins.	0	0	0	12	0	12	0	5	5
+30 mins.	0	0	0	11	0	11	0	7	7
+45 mins.	0	0	0	16	0	16	0	7	7
Total Volume	0	0	0	48	0	48	0	27	27
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.750	.000	.750	.000	.844	.844

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	1	1	1
07:15 AM	1	0	1	1	0	1	1	0	1	3
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total	1	0	1	2	0	2	1	2	3	6
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	1	2	0	2	1	2	3	6
Apprch %	100	0		100	0		33.3	66.7		
Total %	16.7	0	16.7	33.3	0	33.3	16.7	33.3	50	

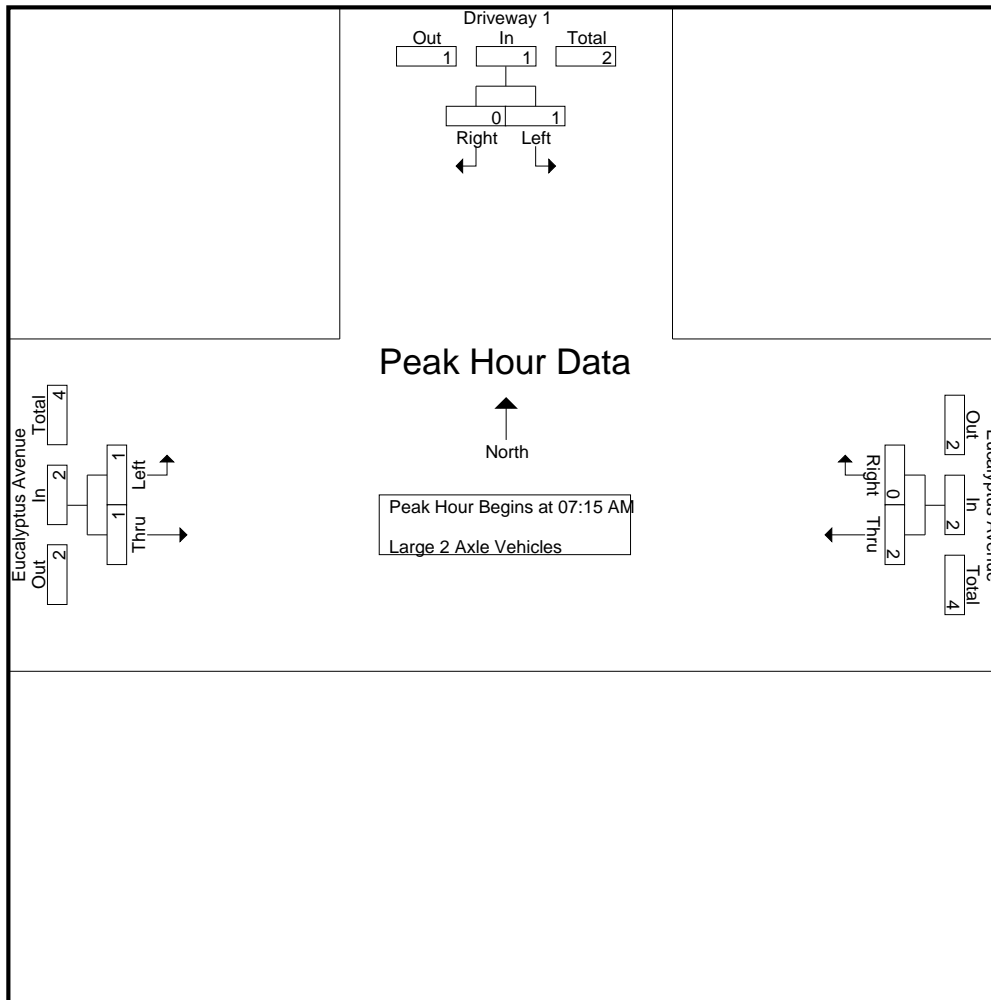
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	1	0	1	1	0	1	1	0	1	3
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	1	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	2	0	2	1	1	2	5
% App. Total	100	0		100	0		50	50		
PHF	.250	.000	.250	.500	.000	.500	.250	.250	.500	.417

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	1	0	1	1	0	1	1	0	1
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	2	0	2	1	1	2
% App. Total	100	0		100	0		50	50	
PHF	.250	.000	.250	.500	.000	.500	.250	.250	.500

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	0	0	1	1	1
Grand Total	0	0	0	0	0	0	0	1	1	1
Apprch %	0	0		0	0		0	100		
Total %	0	0		0	0		0	100	100	

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	1	0	1	0	0	0	1
07:15 AM	0	0	0	1	0	1	0	1	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	2	0	2	0	2	2	4
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	2	0	2	0	2	2	4
Apprch %	0	0		100	0		0	100		
Total %	0	0		50	0	50	0	50	50	

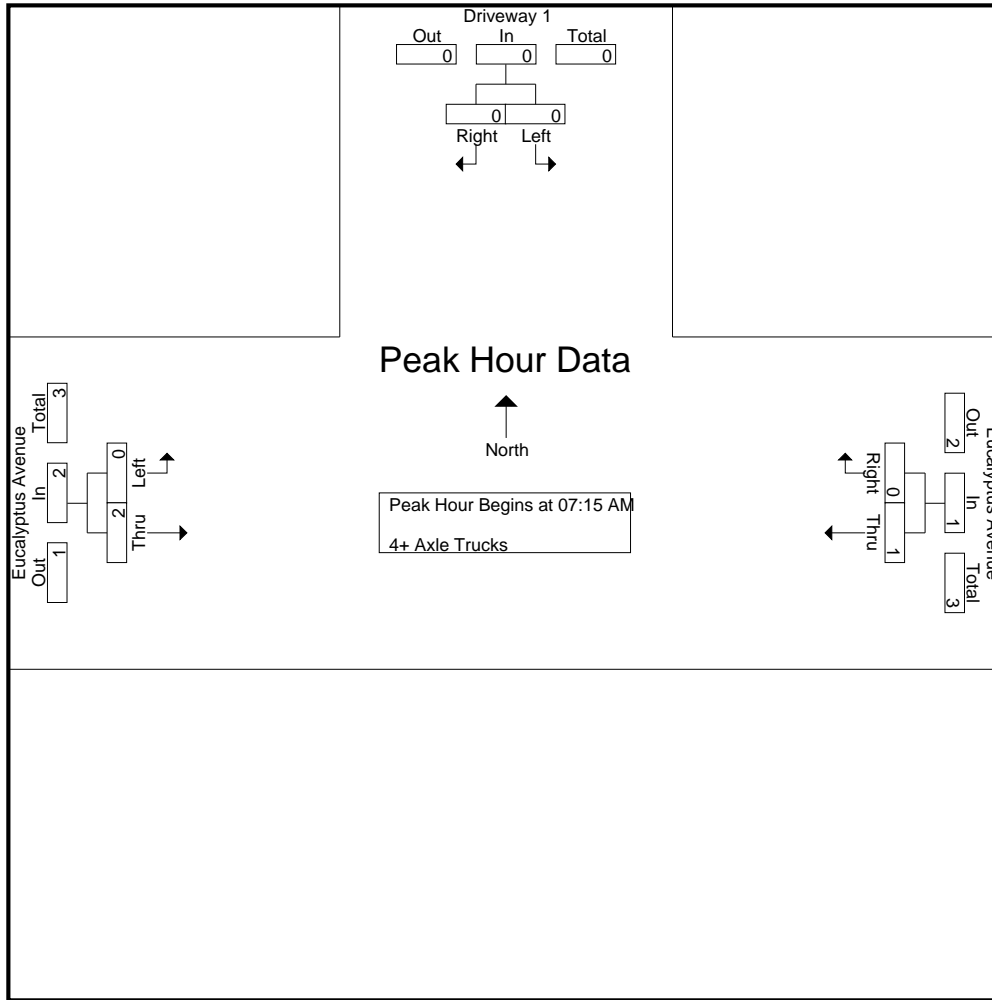
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	0	0	0	1	0	1	0	1	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	2	2	3
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.500	.500	.375

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	1	0	1	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	2	2
% App. Total	0	0	0	100	0	0	0	100	0
PHF	.000	.000	.000	.250	.000	.250	.000	.500	.500

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

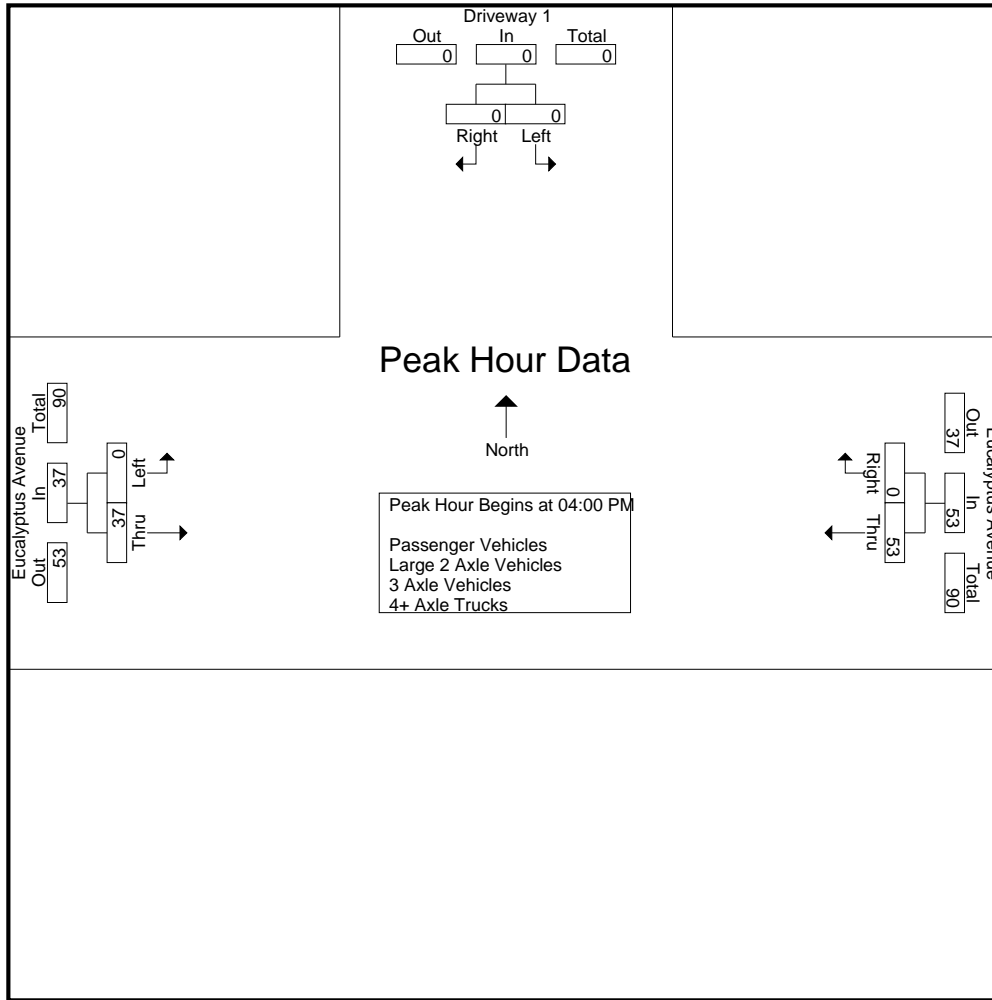
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	15	0	15	0	10	10	25
04:15 PM	0	0	0	15	0	15	0	10	10	25
04:30 PM	0	0	0	10	0	10	0	4	4	14
04:45 PM	0	0	0	13	0	13	0	13	13	26
Total	0	0	0	53	0	53	0	37	37	90
05:00 PM	0	0	0	11	0	11	0	8	8	19
05:15 PM	0	0	0	13	0	13	0	8	8	21
05:30 PM	0	0	0	5	0	5	0	7	7	12
05:45 PM	0	0	0	15	0	15	0	11	11	26
Total	0	0	0	44	0	44	0	34	34	78
Grand Total	0	0	0	97	0	97	0	71	71	168
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	57.7	0	57.7	0	42.3	42.3	
Passenger Vehicles	0	0	0	92	0	92	0	66	66	158
% Passenger Vehicles	0	0	0	94.8	0	94.8	0	93	93	94
Large 2 Axle Vehicles	0	0	0	3	0	3	0	1	1	4
% Large 2 Axle Vehicles	0	0	0	3.1	0	3.1	0	1.4	1.4	2.4
3 Axle Vehicles	0	0	0	1	0	1	0	1	1	2
% 3 Axle Vehicles	0	0	0	1	0	1	0	1.4	1.4	1.2
4+ Axle Trucks	0	0	0	1	0	1	0	3	3	4
% 4+ Axle Trucks	0	0	0	1	0	1	0	4.2	4.2	2.4

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	15	0	15	0	10	10	25
04:15 PM	0	0	0	15	0	15	0	10	10	25
04:30 PM	0	0	0	10	0	10	0	4	4	14
04:45 PM	0	0	0	13	0	13	0	13	13	26
Total Volume	0	0	0	53	0	53	0	37	37	90
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.883	.000	.883	.000	.712	.712	.865

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	15	0	15	0	10	10
+15 mins.	0	0	0	15	0	15	0	10	10
+30 mins.	0	0	0	10	0	10	0	4	4
+45 mins.	0	0	0	13	0	13	0	13	13
Total Volume	0	0	0	53	0	53	0	37	37
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.883	.000	.883	.000	.712	.712

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	14	0	14	0	10	10	24
04:15 PM	0	0	0	13	0	13	0	10	10	23
04:30 PM	0	0	0	10	0	10	0	4	4	14
04:45 PM	0	0	0	12	0	12	0	11	11	23
Total	0	0	0	49	0	49	0	35	35	84
05:00 PM	0	0	0	10	0	10	0	8	8	18
05:15 PM	0	0	0	13	0	13	0	7	7	20
05:30 PM	0	0	0	5	0	5	0	7	7	12
05:45 PM	0	0	0	15	0	15	0	9	9	24
Total	0	0	0	43	0	43	0	31	31	74
Grand Total	0	0	0	92	0	92	0	66	66	158
Apprch %	0	0		100	0		0	100		
Total %	0	0		58.2	0	58.2	0	41.8	41.8	

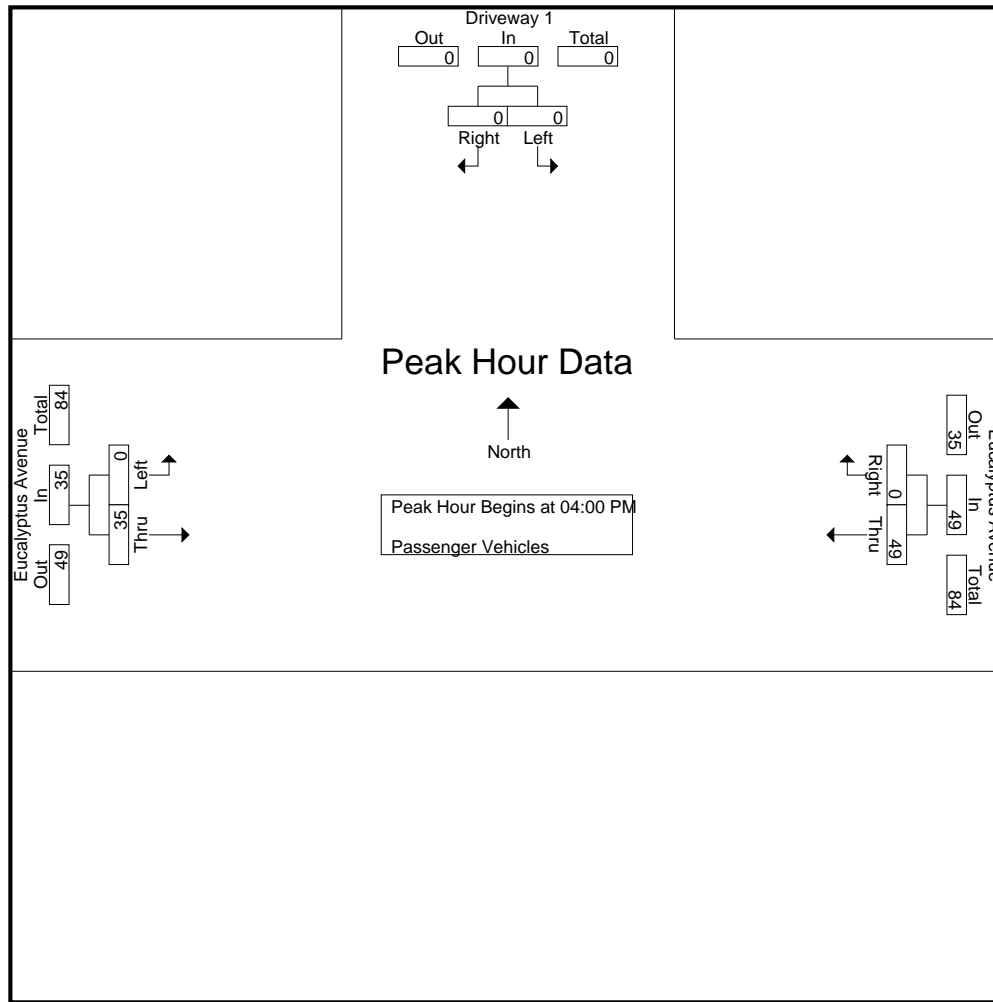
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	14	0	14	0	10	10	24
04:15 PM	0	0	0	13	0	13	0	10	10	23
04:30 PM	0	0	0	10	0	10	0	4	4	14
04:45 PM	0	0	0	12	0	12	0	11	11	23
Total Volume	0	0	0	49	0	49	0	35	35	84
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.875	.000	.875	.000	.795	.795	.875

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	14	0	14	0	10	10
+15 mins.	0	0	0	13	0	13	0	10	10
+30 mins.	0	0	0	10	0	10	0	4	4
+45 mins.	0	0	0	12	0	12	0	11	11
Total Volume	0	0	0	49	0	49	0	35	35
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.875	.000	.875	.000	.795	.795

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	1	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total	0	0	0	2	0	2	0	0	0	2
05:00 PM	0	0	0	1	0	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	1	1	2
Grand Total	0	0	0	3	0	3	0	1	1	4
Apprch %	0	0		100	0		0	100		
Total %	0	0		75	0	75	0	25	25	

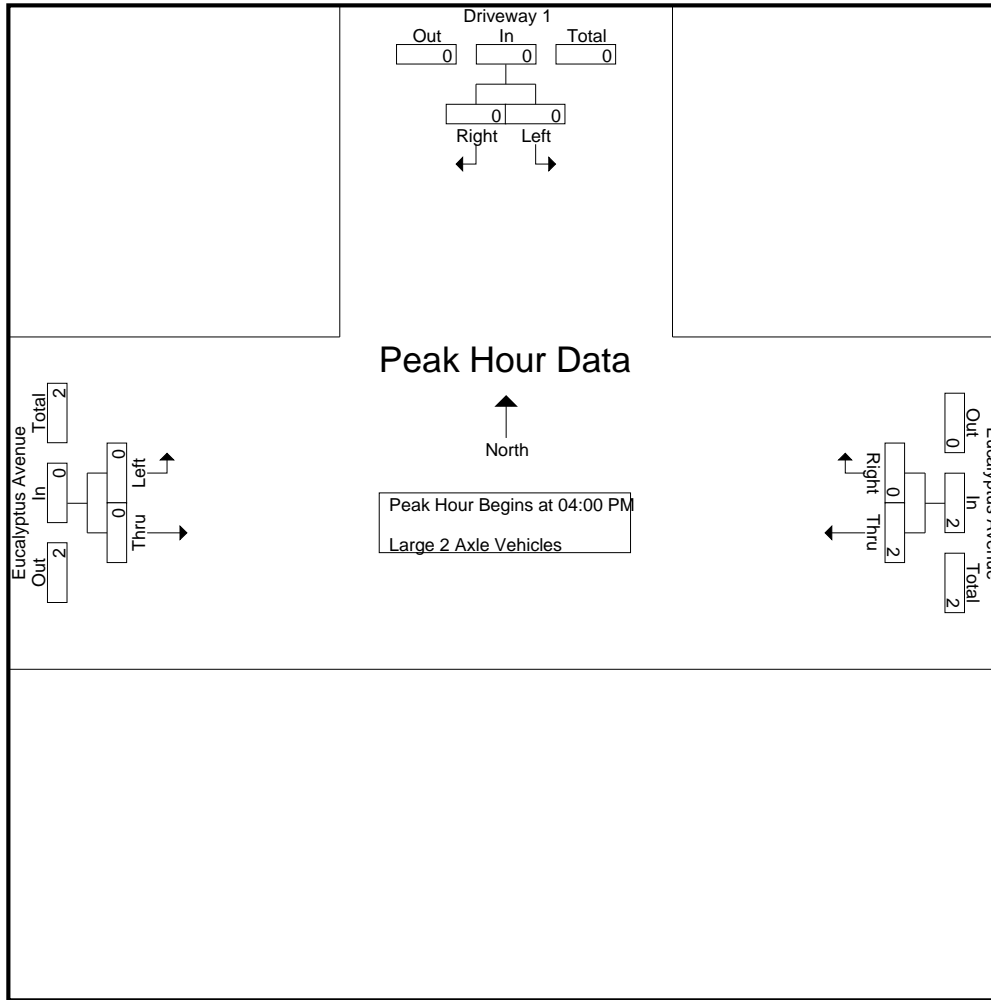
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	1	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	0	0	2	0	2	0	0	0	2
% App. Total	0	0		100	0		0	0		
PHF	.000	.000	.000	.500	.000	.500	.000	.000	.000	.500

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	0	0	2	0	2	0	0	0
% App. Total	0	0	0	100	0	100	0	0	0
PHF	.000	.000	.000	.500	.000	.500	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	1	0	1	0	1	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	1	0	1	1	2
Apprch %	0	0		100	0		0	100		
Total %	0	0		50	0	50	0	50	50	

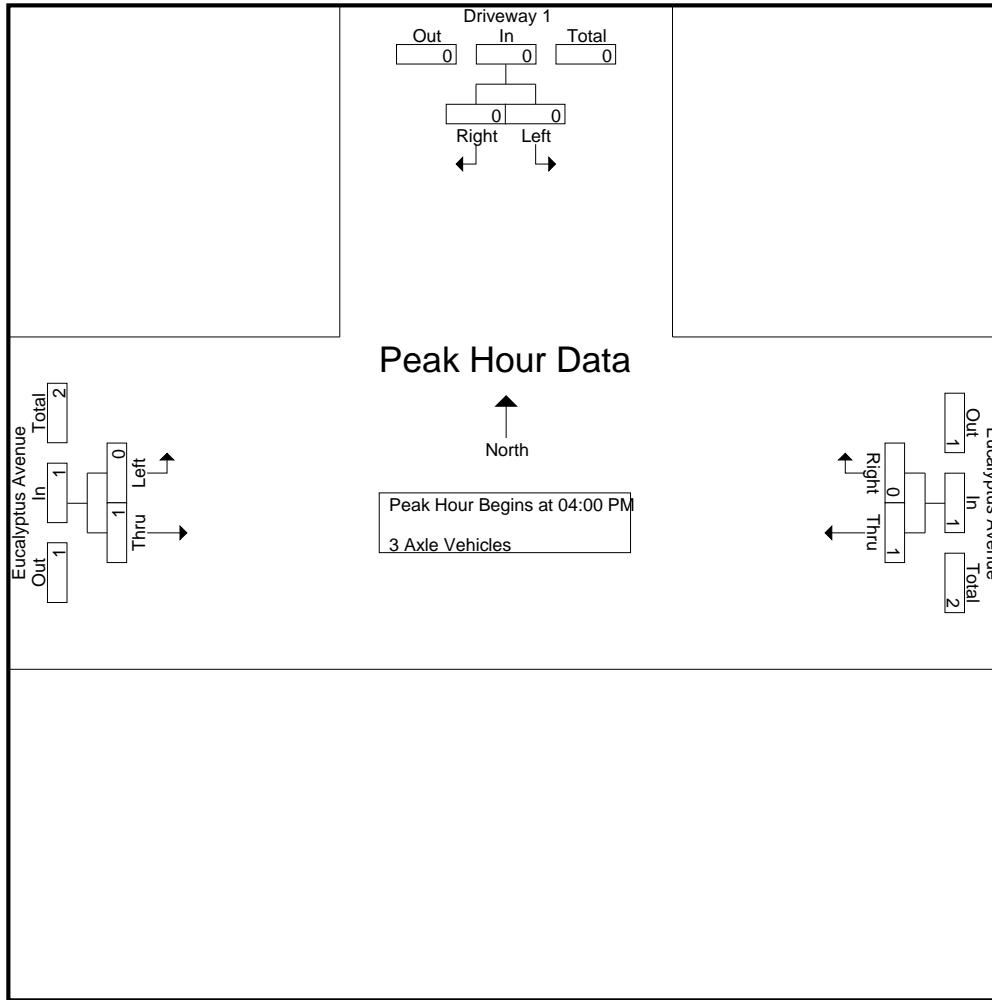
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	1	0	1	0	1	1	2
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.250	.250	.500

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	1	0	1	0	1	1
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.250	.000	.250	.000	.250	.250

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	1	0	1	0	1	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	0	0	0	0	2	2	2
Grand Total	0	0	0	1	0	1	0	3	3	4
Apprch %	0	0		100	0		0	100		
Total %	0	0		25	0	25	0	75	75	

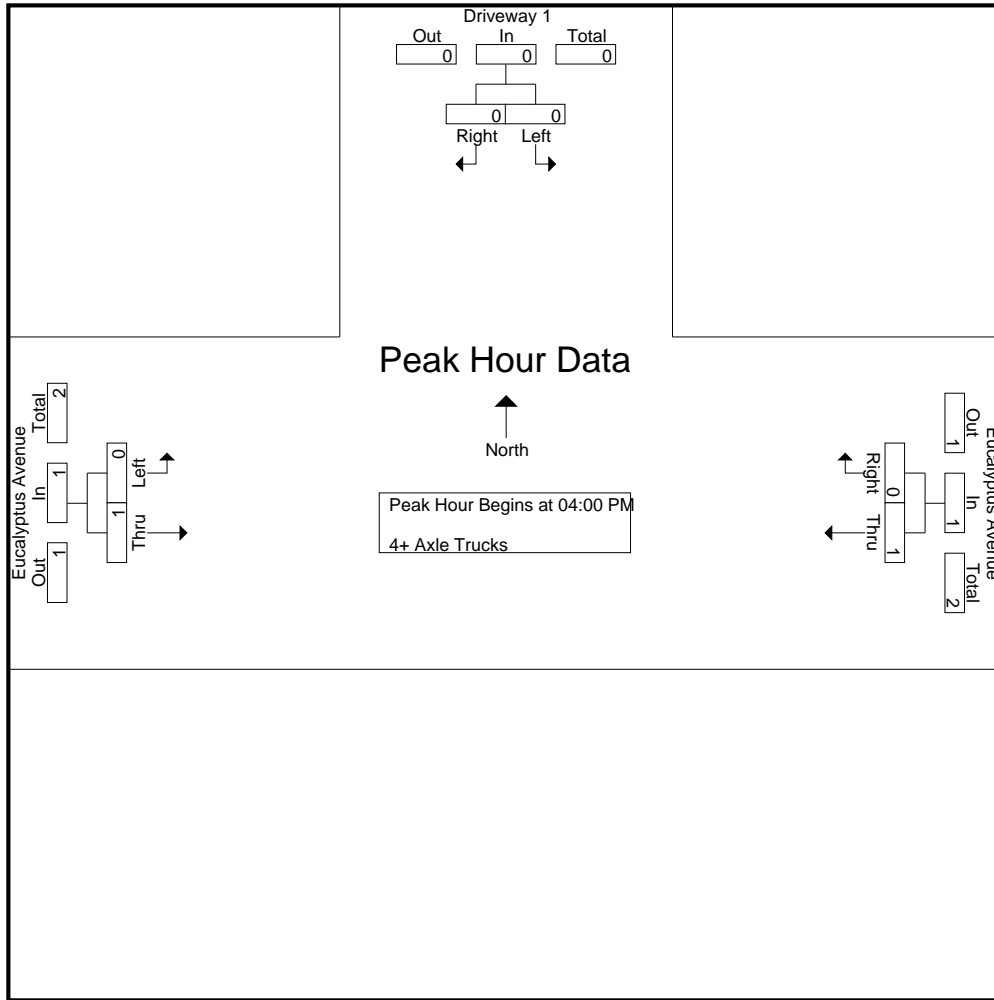
Start Time	Driveway 1 Southbound			Eucalyptus Avenue Westbound			Eucalyptus Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	1	0	1	0	1	1	2
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.250	.250	.500

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

City of Moreno Valley
 N/S: Driveway 1
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 15_MRV_DW1_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	1	0	1	0	1	1
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.250	.000	.250	.000	.250	.250

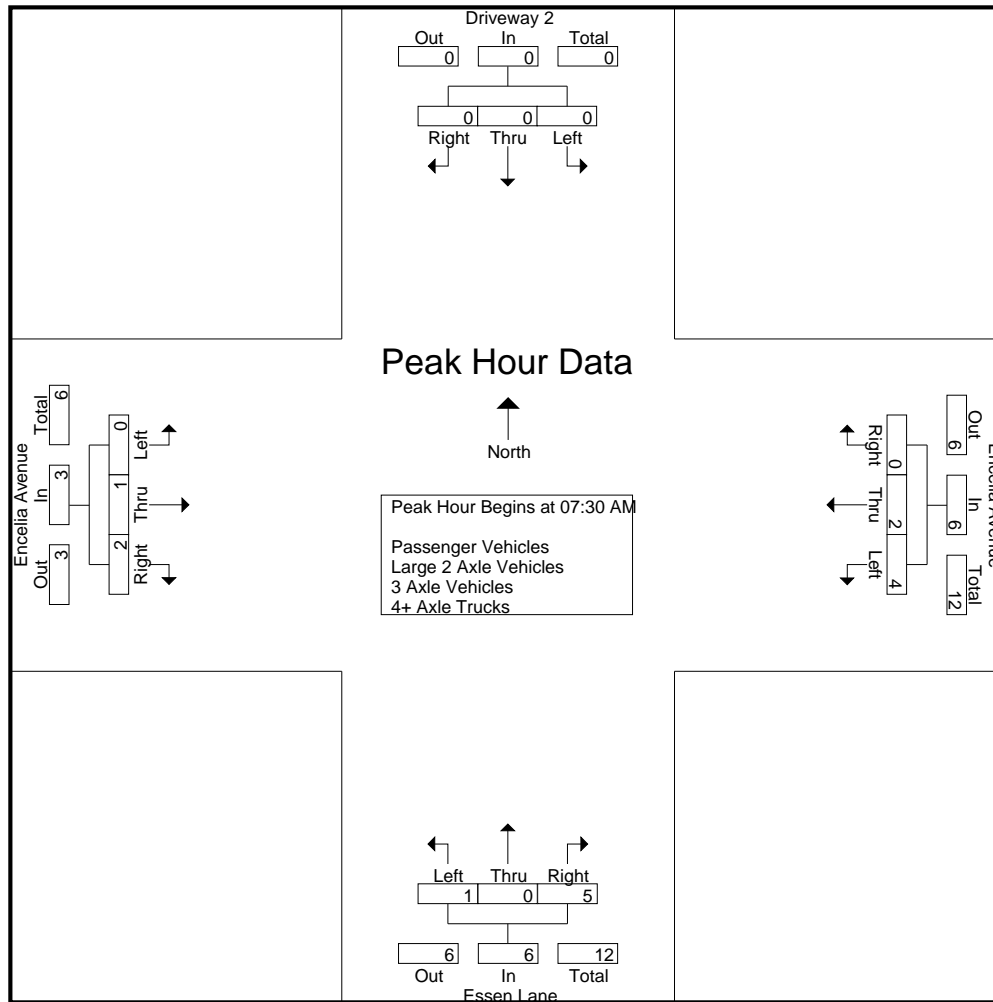
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	0	0	1	0	0	2	2	0	0	0	0	3
07:15 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
07:30 AM	0	0	0	0	1	0	0	1	1	0	1	2	0	1	0	1	4
07:45 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
Total	0	0	0	0	3	1	0	4	1	0	5	6	0	2	0	2	12
08:00 AM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
08:15 AM	0	0	0	0	1	1	0	2	0	0	2	2	0	0	1	1	5
08:30 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	3
Total	0	0	0	0	3	2	0	5	0	0	7	7	0	0	2	2	14
Grand Total	0	0	0	0	6	3	0	9	1	0	12	13	0	2	2	4	26
Apprch %	0	0	0		66.7	33.3	0		7.7	0	92.3		0	50	50		
Total %	0	0	0	0	23.1	11.5	0	34.6	3.8	0	46.2	50	0	7.7	7.7	15.4	
Passenger Vehicles	0	0	0	0	6	3	0	9	1	0	12	13	0	2	2	4	26
% Passenger Vehicles	0	0	0	0	100	100	0	100	100	0	100	100	0	100	100	100	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	1	0	0	1	1	0	1	2	0	1	0	1	4
07:45 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
08:00 AM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
08:15 AM	0	0	0	0	1	1	0	2	0	0	2	2	0	0	1	1	5
Total Volume	0	0	0	0	4	2	0	6	1	0	5	6	0	1	2	3	15
% App. Total	0	0	0		66.7	33.3	0		16.7	0	83.3		0	33.3	66.7		
PHF	.000	.000	.000	.000	1.00	.500	.000	.750	.250	.000	.625	.750	.000	.250	.500	.750	.750



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:30 AM				08:00 AM				07:15 AM			
+0 mins.	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	1
+15 mins.	0	0	0	0	1	0	0	1	0	0	2	2	0	1	0	1
+30 mins.	0	0	0	0	1	1	0	2	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	2	0	0	3	3	0	0	1	1
Total Volume	0	0	0	0	4	2	0	6	0	0	7	7	0	2	1	3
% App. Total	0	0	0	0	66.7	33.3	0		0	0	100		0	66.7	33.3	
PHF	.000	.000	.000	.000	1.000	.500	.000	.750	.000	.000	.583	.583	.000	.500	.250	.750

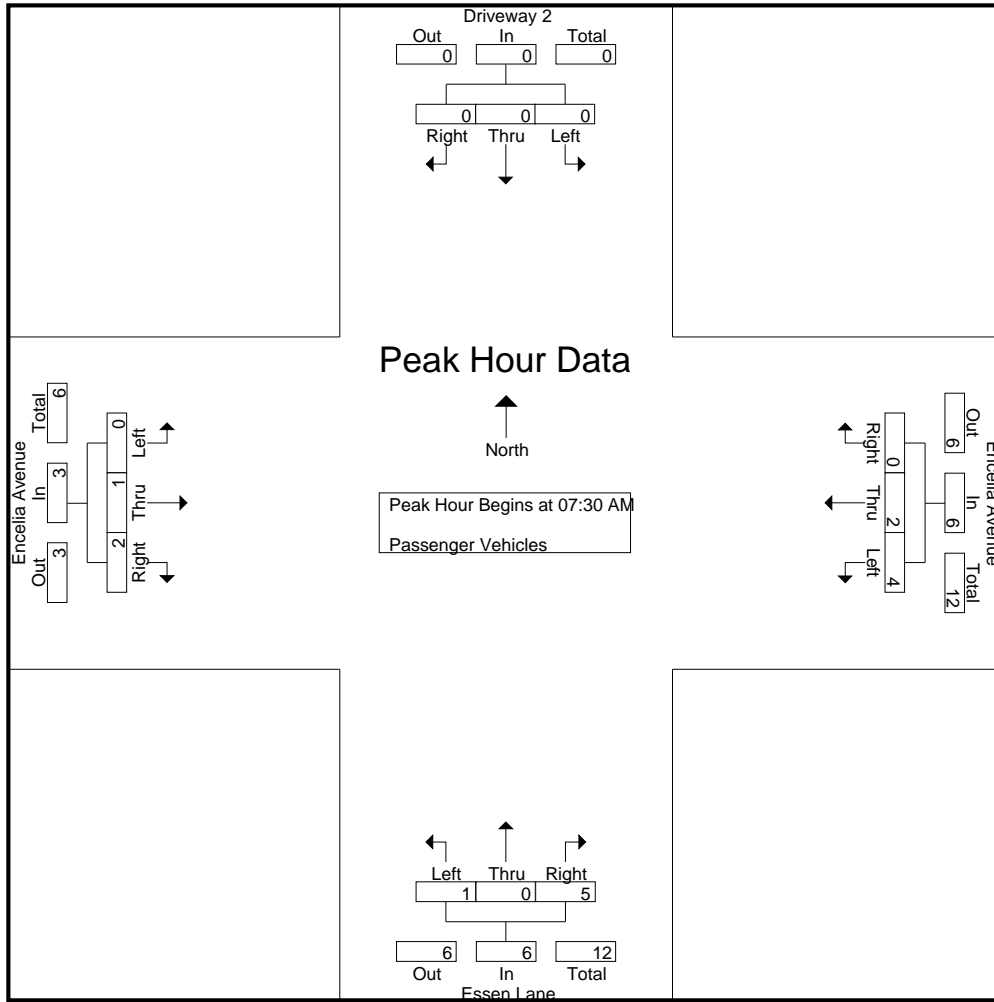
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	0	0	1	0	0	2	2	0	0	0	0	3
07:15 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
07:30 AM	0	0	0	0	1	0	0	1	1	0	1	2	0	1	0	1	4
07:45 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
Total	0	0	0	0	3	1	0	4	1	0	5	6	0	2	0	2	12
08:00 AM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
08:15 AM	0	0	0	0	1	1	0	2	0	0	2	2	0	0	1	1	5
08:30 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	3
Total	0	0	0	0	3	2	0	5	0	0	7	7	0	0	2	2	14
Grand Total	0	0	0	0	6	3	0	9	1	0	12	13	0	2	2	4	26
Apprch %	0	0	0		66.7	33.3	0		7.7	0	92.3		0	50	50		
Total %	0	0	0		23.1	11.5	0	34.6	3.8	0	46.2	50	0	7.7	7.7	15.4	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	1	0	0	1	1	0	1	2	0	1	0	1	4
07:45 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
08:00 AM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
08:15 AM	0	0	0	0	1	1	0	2	0	0	2	2	0	0	1	1	5
Total Volume	0	0	0	0	4	2	0	6	1	0	5	6	0	1	2	3	15
% App. Total	0	0	0		66.7	33.3	0		16.7	0	83.3		0	33.3	66.7		
PHF	.000	.000	.000	.000	1.00	.500	.000	.750	.250	.000	.625	.750	.000	.250	.500	.750	.750



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	1	0	0	1	1	0	1	2	0	1	0	1
+15 mins.	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0
+30 mins.	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1
+45 mins.	0	0	0	0	1	1	0	2	0	0	2	2	0	0	1	1
Total Volume	0	0	0	0	4	2	0	6	1	0	5	6	0	1	2	3
% App. Total	0	0	0	0	66.7	33.3	0		16.7	0	83.3		0	33.3	66.7	
PHF	.000	.000	.000	.000	1.000	.500	.000	.750	.250	.000	.625	.750	.000	.250	.500	.750

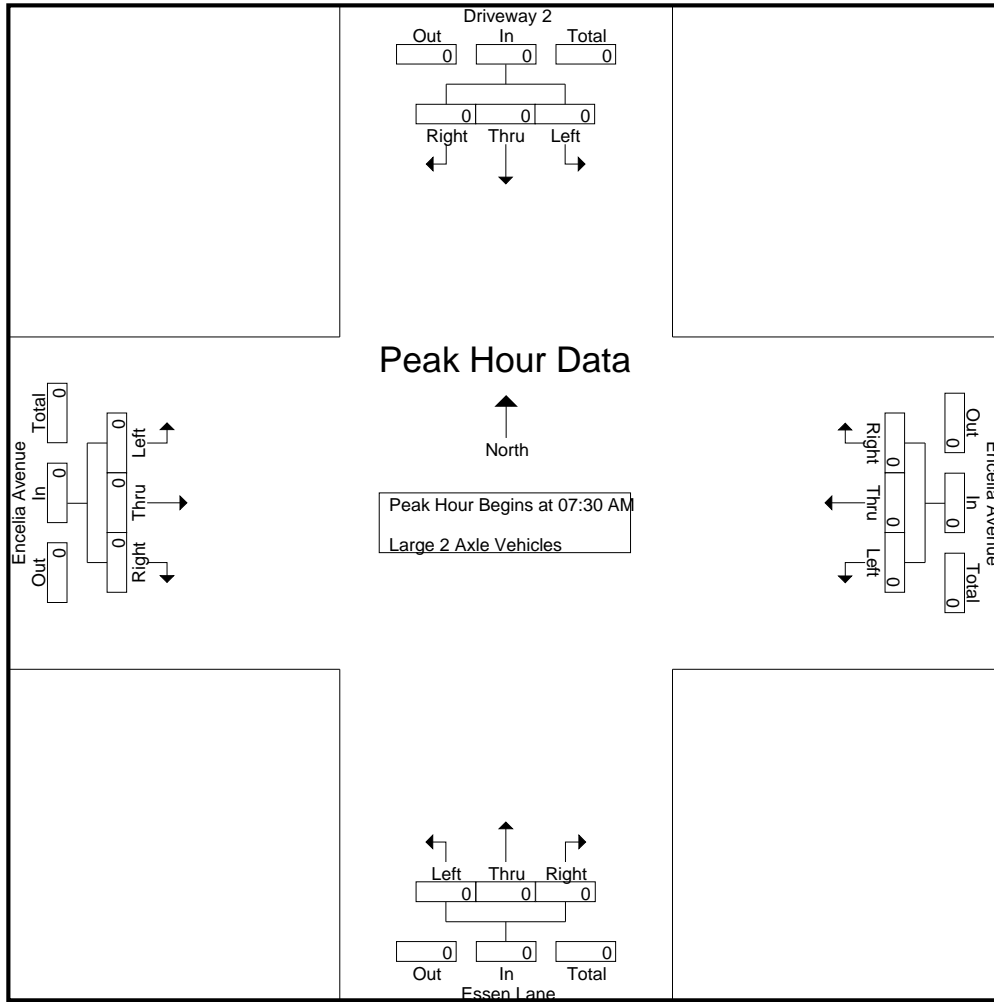
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

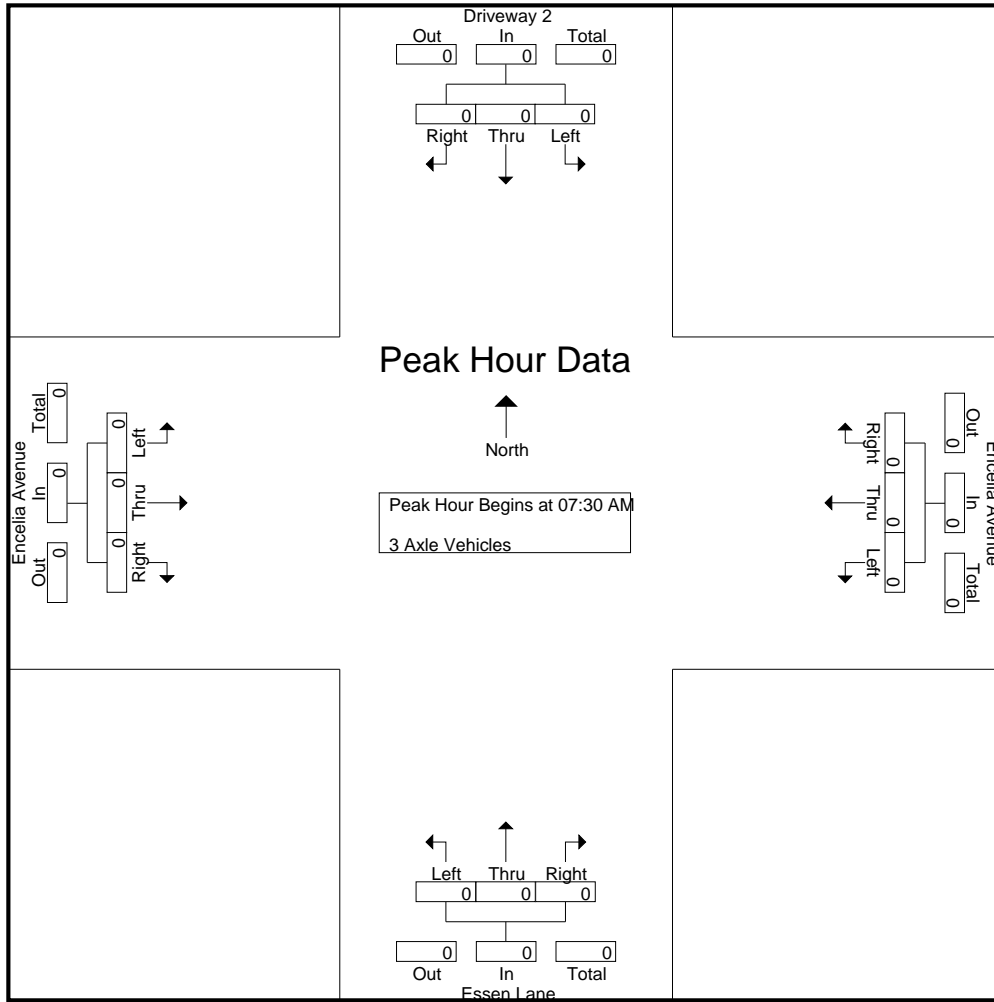
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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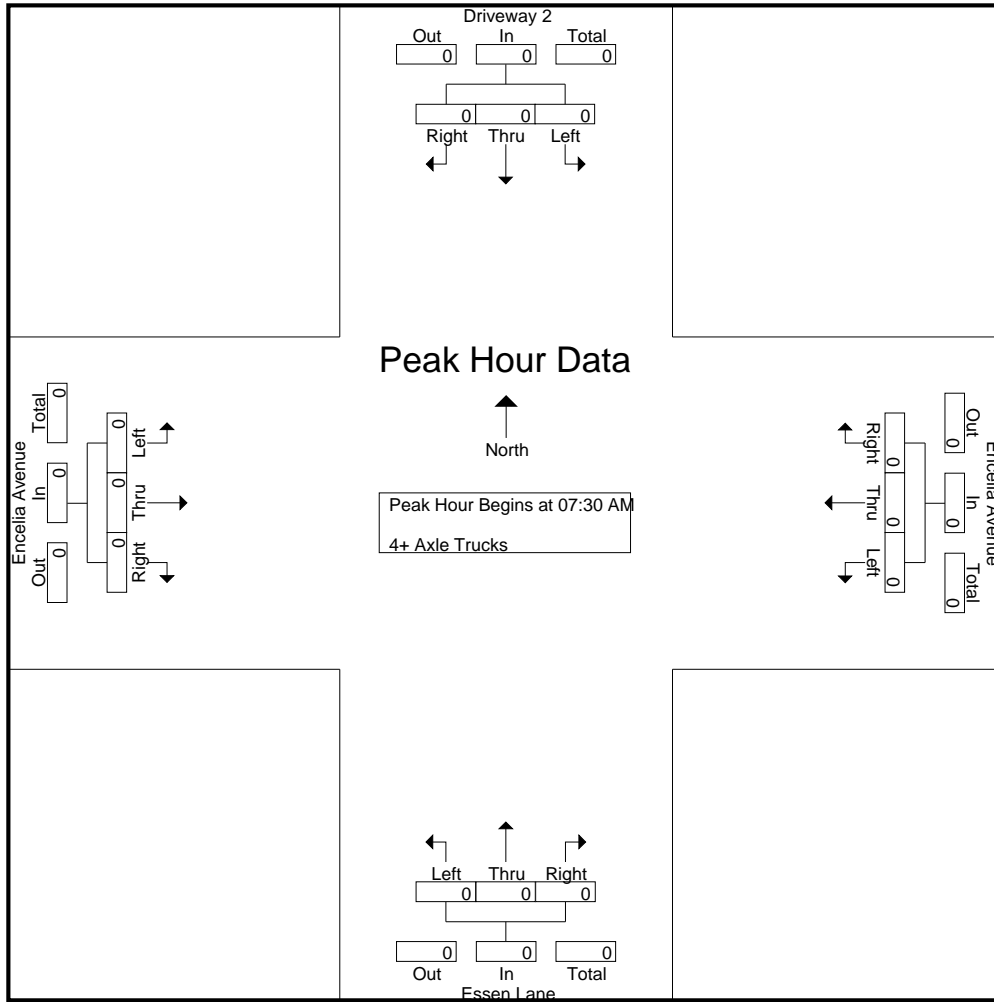
Groups Printed- 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia AM
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

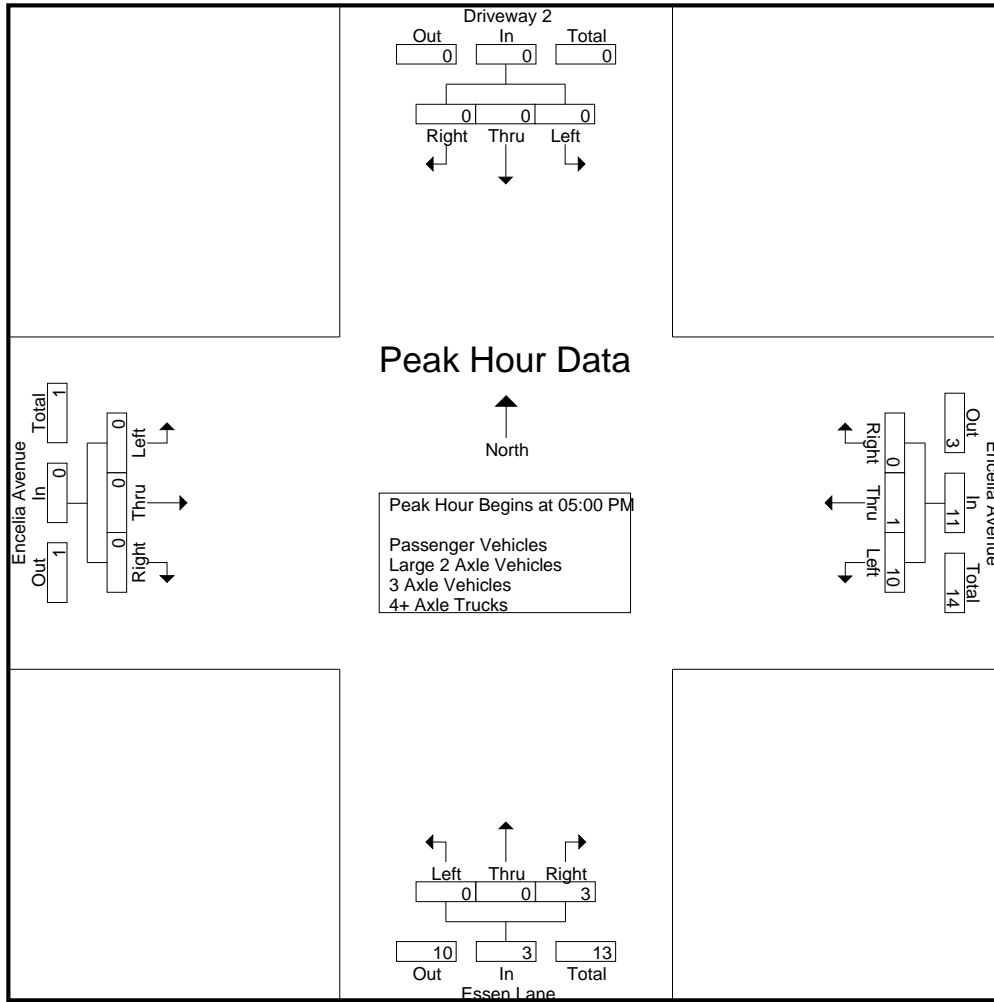
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:15 PM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	2	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	1	0	4	0	0	2	2	0	0	2	2	8
05:00 PM	0	0	0	0	3	0	0	3	0	0	1	1	0	0	0	0	4
05:15 PM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	3	1	0	4	0	0	2	2	0	0	0	0	6
Total	0	0	0	0	10	1	0	11	0	0	3	3	0	0	0	0	14
Grand Total	0	0	0	0	13	2	0	15	0	0	5	5	0	0	2	2	22
Apprch %	0	0	0		86.7	13.3	0		0	0	100		0	0	100		
Total %	0	0	0	0	59.1	9.1	0	68.2	0	0	22.7	22.7	0	0	9.1	9.1	
Passenger Vehicles	0	0	0	0	12	2	0	14	0	0	5	5	0	0	2	2	21
% Passenger Vehicles	0	0	0	0	92.3	100	0	93.3	0	0	100	100	0	0	100	100	95.5
Large 2 Axle Vehicles	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
% Large 2 Axle Vehicles	0	0	0	0	7.7	0	0	6.7	0	0	0	0	0	0	0	0	4.5
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	3	0	0	3	0	0	1	1	0	0	0	0	4
05:15 PM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	3	1	0	4	0	0	2	2	0	0	0	0	6
Total Volume	0	0	0	0	10	1	0	11	0	0	3	3	0	0	0	0	14
% App. Total	0	0	0		90.9	9.1	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.833	.250	.000	.688	.000	.000	.375	.375	.000	.000	.000	.000	.583



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	0	0	0	0	3	0	0	3	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	2
+45 mins.	0	0	0	0	3	1	0	4	0	0	2	2	0	0	0	0
Total Volume	0	0	0	0	10	1	0	11	0	0	3	3	0	0	2	2
% App. Total	0	0	0	0	90.9	9.1	0	0	0	0	100	0	0	0	100	0
PHF	.000	.000	.000	.000	.833	.250	.000	.688	.000	.000	.375	.375	.000	.000	.250	.250

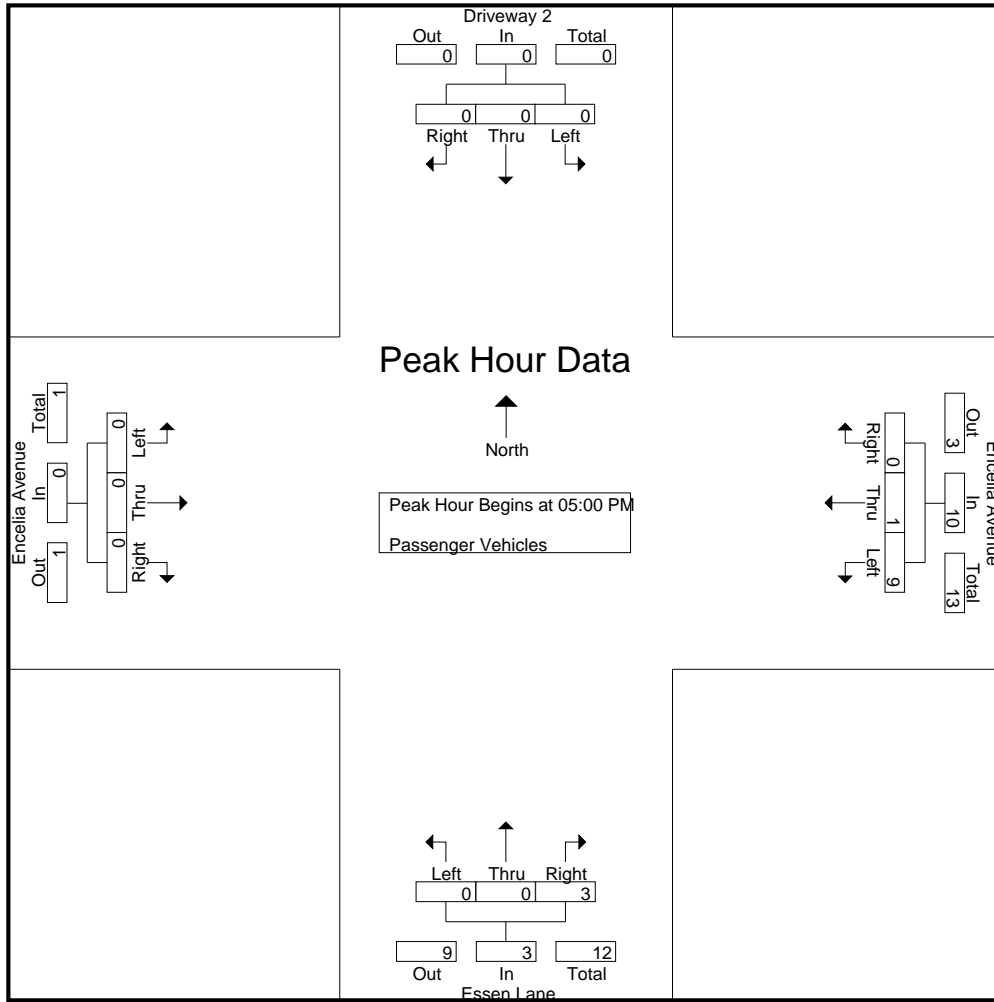
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:15 PM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	2	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	1	0	4	0	0	2	2	0	0	2	2	8
05:00 PM	0	0	0	0	3	0	0	3	0	0	1	1	0	0	0	0	4
05:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	3	1	0	4	0	0	2	2	0	0	0	0	6
Total	0	0	0	0	9	1	0	10	0	0	3	3	0	0	0	0	13
Grand Total	0	0	0	0	12	2	0	14	0	0	5	5	0	0	2	2	21
Apprch %	0	0	0		85.7	14.3	0		0	0	100		0	0	100		
Total %	0	0	0	0	57.1	9.5	0	66.7	0	0	23.8	23.8	0	0	9.5	9.5	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	3	0	0	3	0	0	1	1	0	0	0	0	4
05:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	3	1	0	4	0	0	2	2	0	0	0	0	6
Total Volume	0	0	0	0	9	1	0	10	0	0	3	3	0	0	0	0	13
% App. Total	0	0	0		90	10	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.750	.250	.000	.625	.000	.000	.375	.375	.000	.000	.000	.000	.542



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	3	0	0	3	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	3	1	0	4	0	0	2	2	0	0	0	0
Total Volume	0	0	0	0	9	1	0	10	0	0	3	3	0	0	0	0
% App. Total	0	0	0	0	90	10	0	100	0	0	100		0	0	0	0
PHF	.000	.000	.000	.000	.750	.250	.000	.625	.000	.000	.375	.375	.000	.000	.000	.000

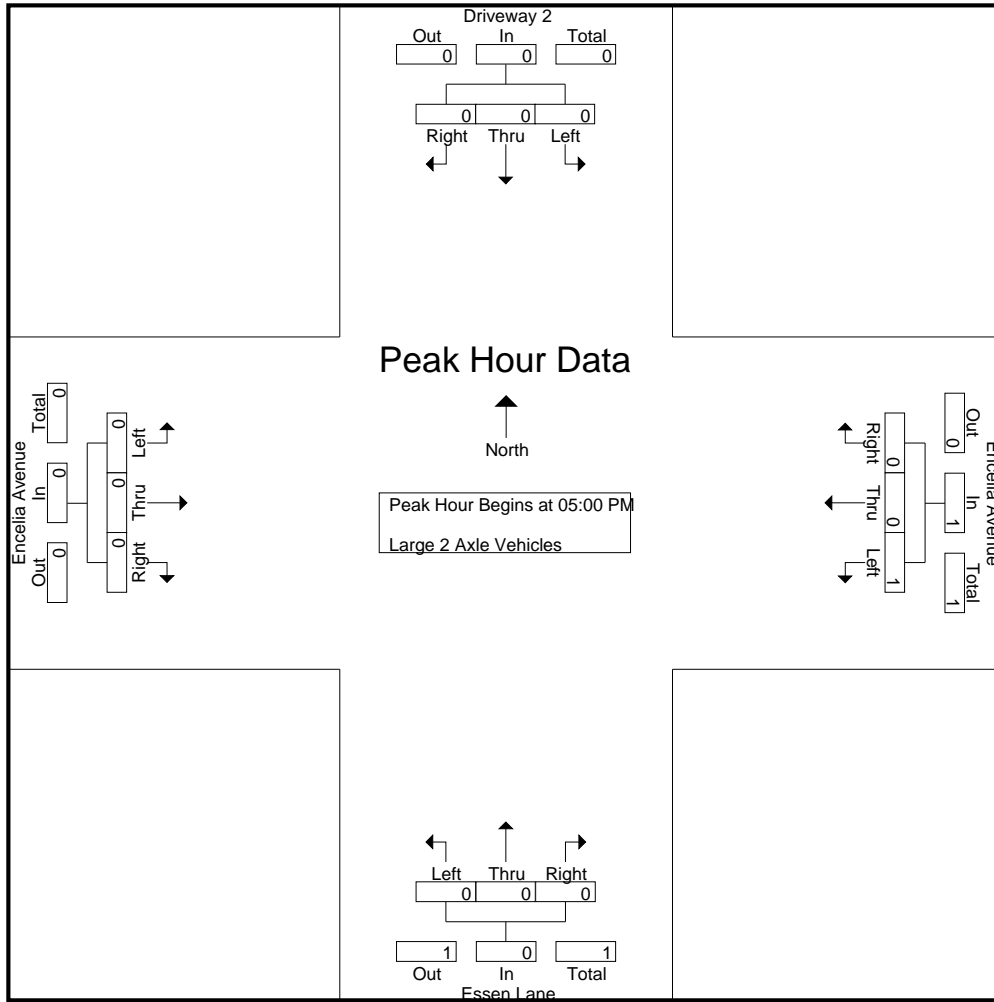
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	1	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	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	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Apprch %	0	0	0		100	0	0		0	0	0		0	0	0		
Total %	0	0	0	0	100	0	0	100	0	0	0	0	0	0	0	0	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	1	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	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 Volume	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		100	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	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	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia PM
 Site Code : 99919736
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 Page No : 1

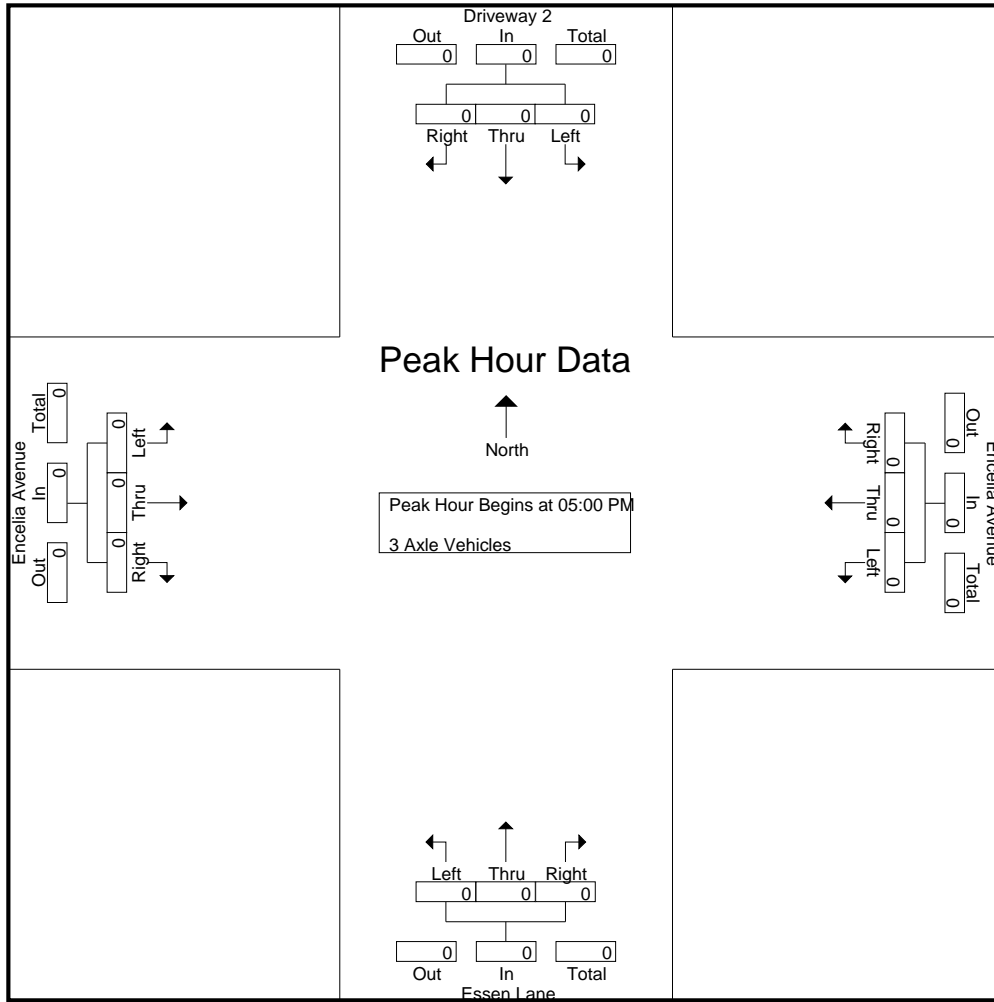
Groups Printed- 3 Axle Vehicles

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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 Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

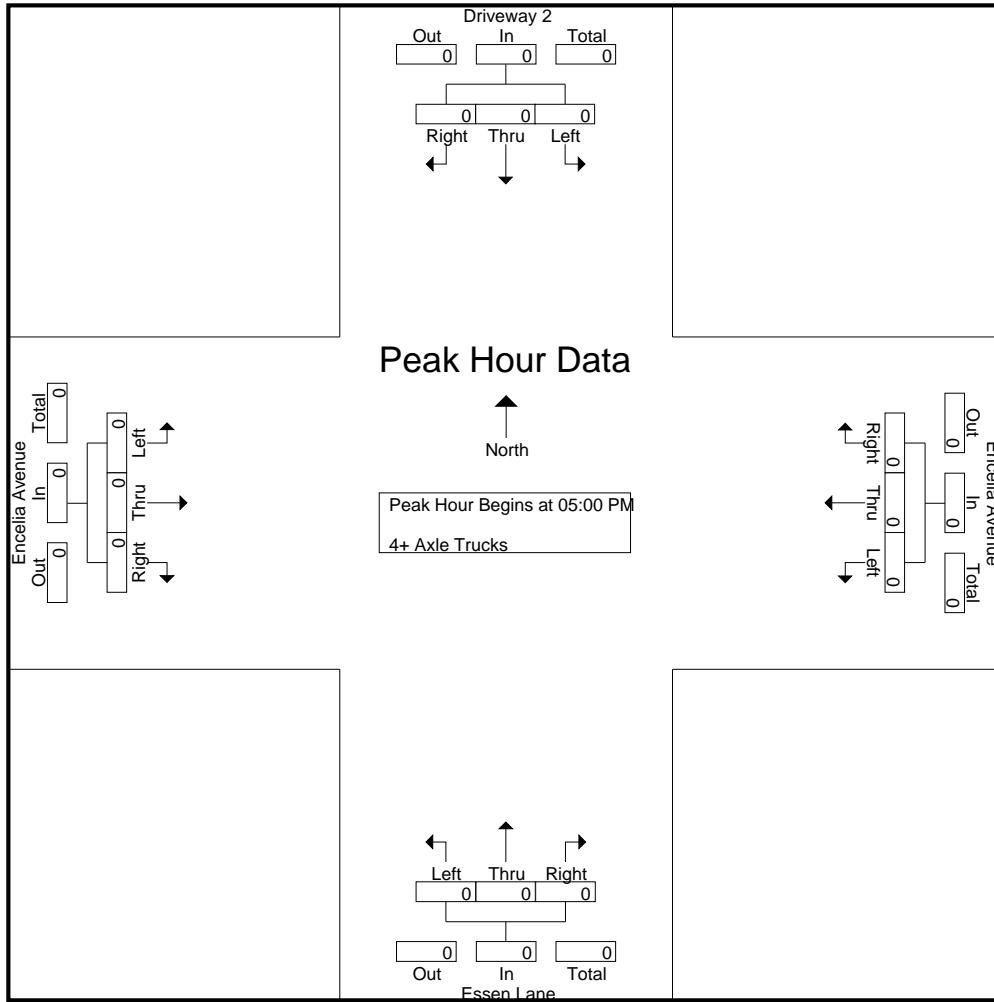
City of Moreno Valley
 N/S: Driveway 2/Essen Lane
 E/W: Encelia Avenue
 Weather: Clear

File Name : 16_MRV_DW2_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Encelia Avenue Westbound				Essen Lane Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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 Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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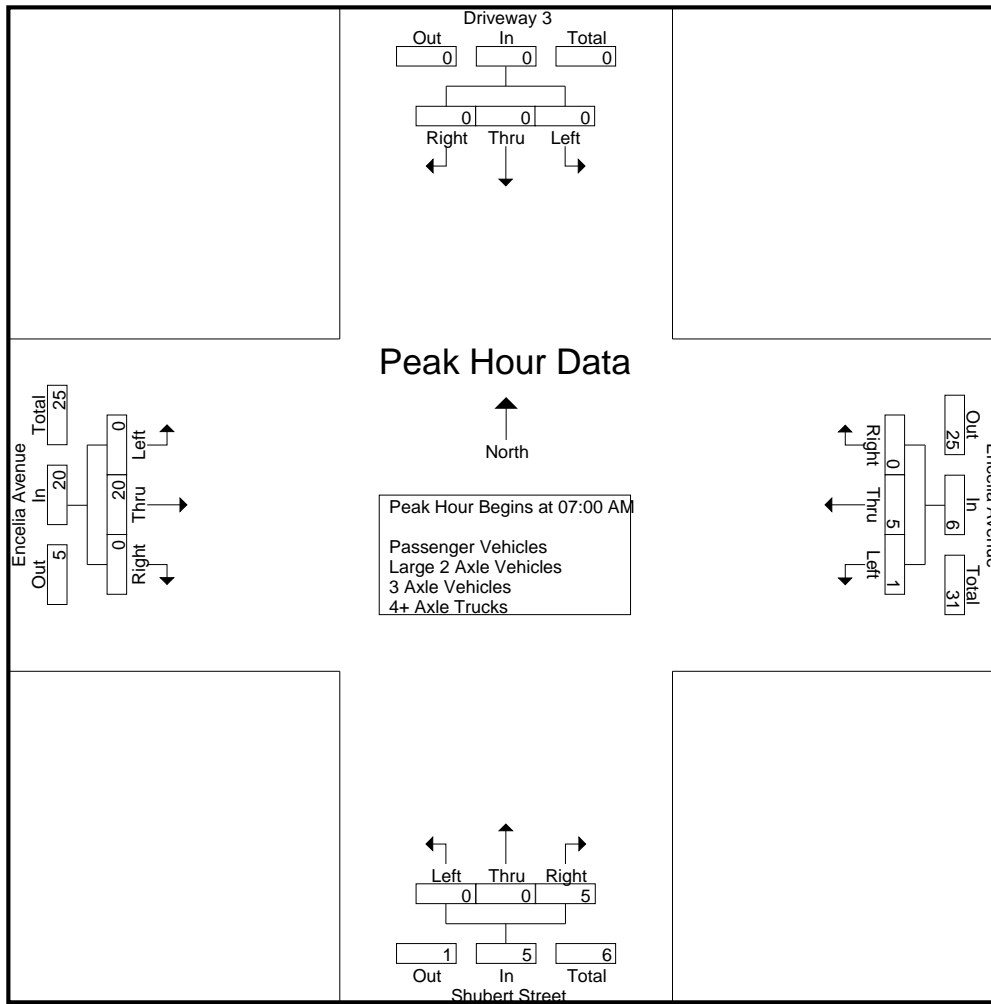
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	1	0	1	0	0	4	4	0	8	0	8	13
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
07:30 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	4	0	4	8
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
Total	0	0	0	0	1	5	0	6	0	0	5	5	0	20	0	20	31
08:00 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	4	0	4	8
08:15 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	2	0	2	6
08:30 AM	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	4	0	4	5
Total	0	0	0	0	1	8	0	9	1	0	3	4	0	10	0	10	23
Grand Total	0	0	0	0	2	13	0	15	1	0	8	9	0	30	0	30	54
Apprch %	0	0	0		13.3	86.7	0		11.1	0	88.9		0	100	0		
Total %	0	0	0	0	3.7	24.1	0	27.8	1.9	0	14.8	16.7	0	55.6	0	55.6	
Passenger Vehicles	0	0	0	0	2	13	0	15	1	0	8	9	0	29	0	29	53
% Passenger Vehicles	0	0	0	0	100	100	0	100	100	0	100	100	0	96.7	0	96.7	98.1
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	3.3	0	3.3	1.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	4	4	0	8	0	8	13
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
07:30 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	4	0	4	8
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
Total Volume	0	0	0	0	1	5	0	6	0	0	5	5	0	20	0	20	31
% App. Total	0	0	0		16.7	83.3	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.250	.625	.000	.500	.000	.000	.313	.313	.000	.625	.000	.625	.596

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
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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:

	07:00 AM				07:30 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	1	2	0	3	0	0	4	4	0	0	8	0	8
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	0	4
+30 mins.	0	0	0	0	0	3	0	3	0	0	1	1	0	4	0	0	4
+45 mins.	0	0	0	0	1	3	0	4	0	0	0	0	0	4	0	0	4
Total Volume	0	0	0	0	2	9	0	11	0	0	5	5	0	20	0	0	20
% App. Total	0	0	0	0	18.2	81.8	0	0	0	0	100	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.500	.750	.000	.688	.000	.000	.313	.313	.000	.625	.000	.625	.625

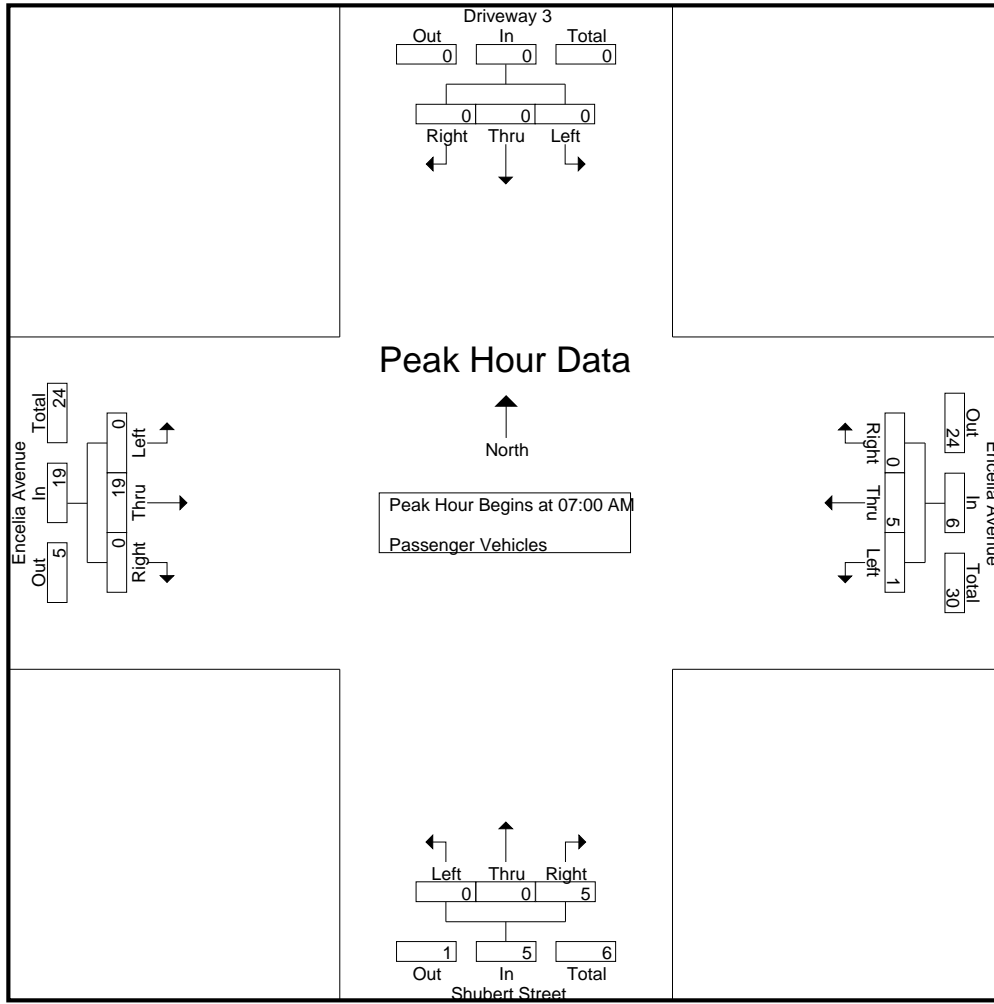
City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	1	0	1	0	0	4	4	0	8	0	8	13
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
07:30 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	3	0	3	7
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
Total	0	0	0	0	1	5	0	6	0	0	5	5	0	19	0	19	30
08:00 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	4	0	4	8
08:15 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	2	0	2	6
08:30 AM	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	4	0	4	5
Total	0	0	0	0	1	8	0	9	1	0	3	4	0	10	0	10	23
Grand Total	0	0	0	0	2	13	0	15	1	0	8	9	0	29	0	29	53
Apprch %	0	0	0		13.3	86.7	0		11.1	0	88.9		0	100	0		
Total %	0	0	0	0	3.8	24.5	0	28.3	1.9	0	15.1	17	0	54.7	0	54.7	

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	4	4	0	8	0	8	13
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
07:30 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	3	0	3	7
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
Total Volume	0	0	0	0	1	5	0	6	0	0	5	5	0	19	0	19	30
% App. Total	0	0	0		16.7	83.3	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.250	.625	.000	.500	.000	.000	.313	.313	.000	.594	.000	.594	.577



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	4	4	0	0	8	0	8
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	0	4
+30 mins.	0	0	0	0	1	2	0	3	0	0	1	1	0	3	0	0	3
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	0	4
Total Volume	0	0	0	0	1	5	0	6	0	0	5	5	0	19	0	0	19
% App. Total	0	0	0	0	16.7	83.3	0	0	0	0	100	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.250	.625	.000	.500	.000	.000	.313	.313	.000	.594	.000	.594	

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

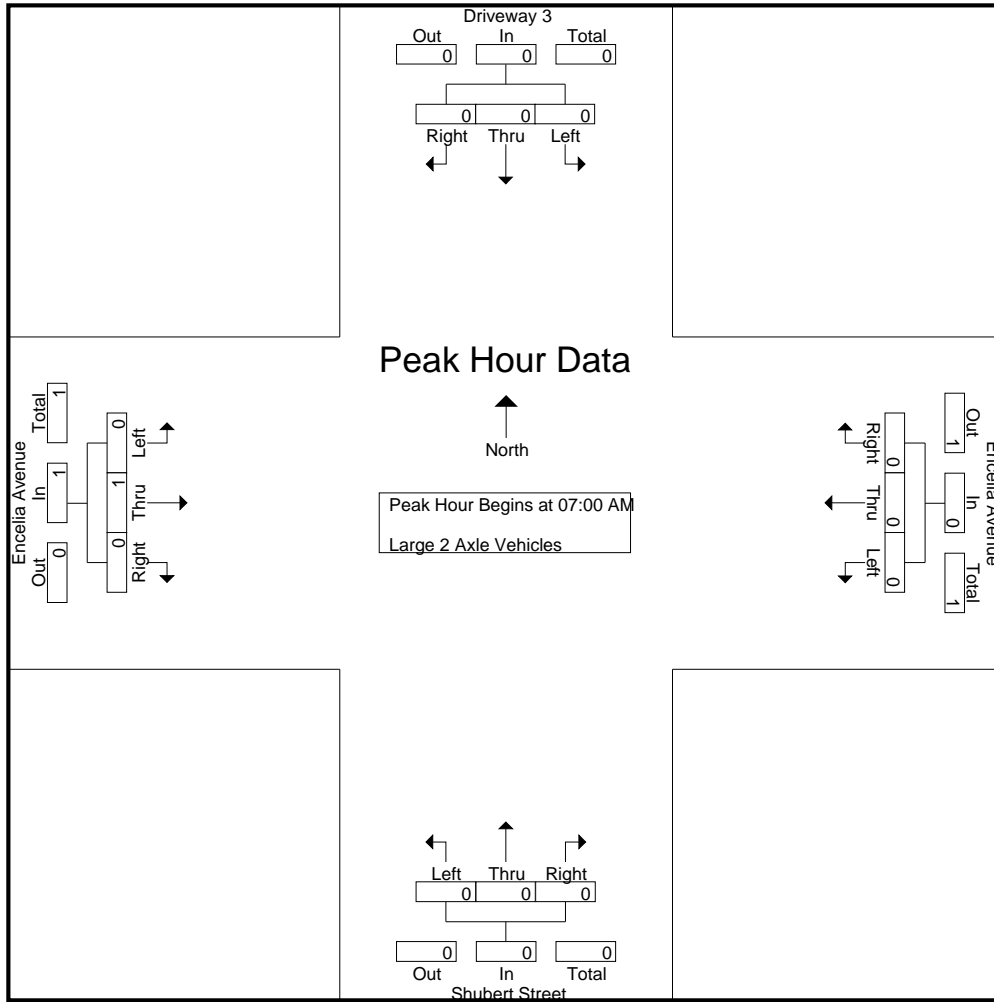
Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

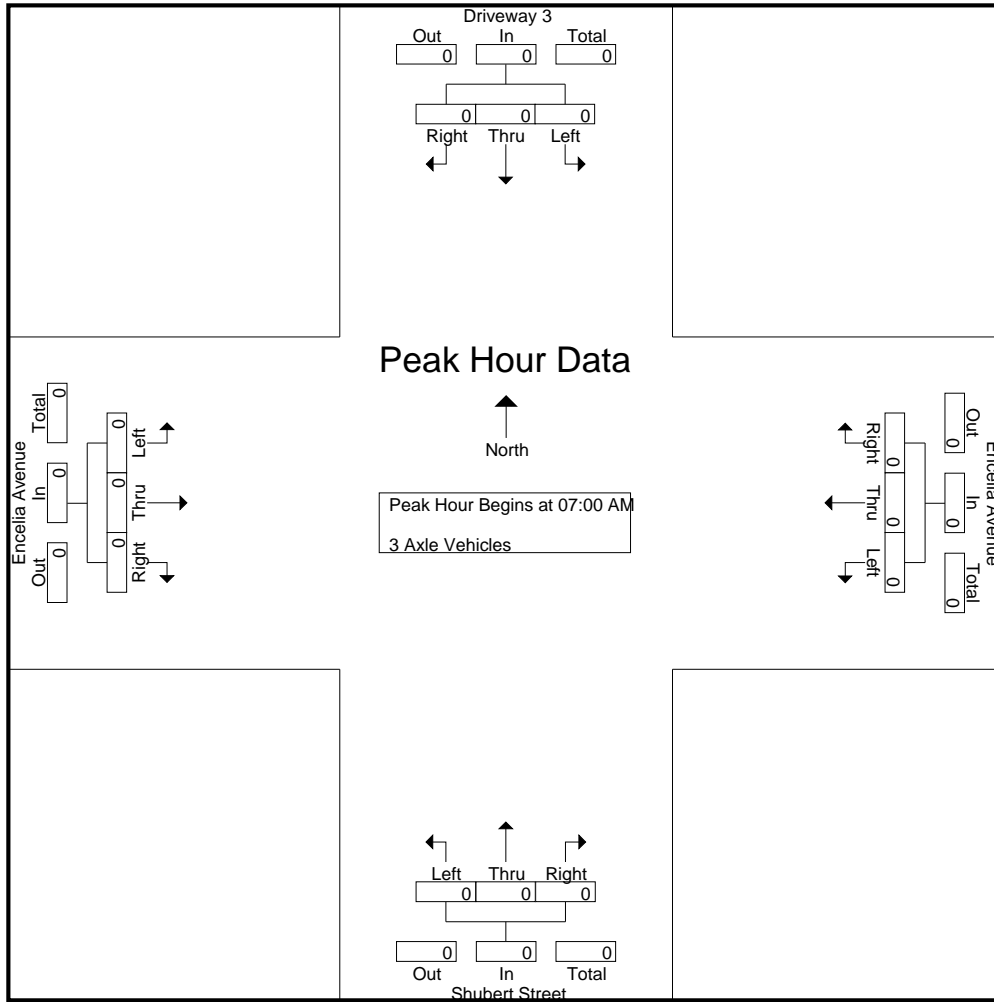
Groups Printed- 3 Axle Vehicles

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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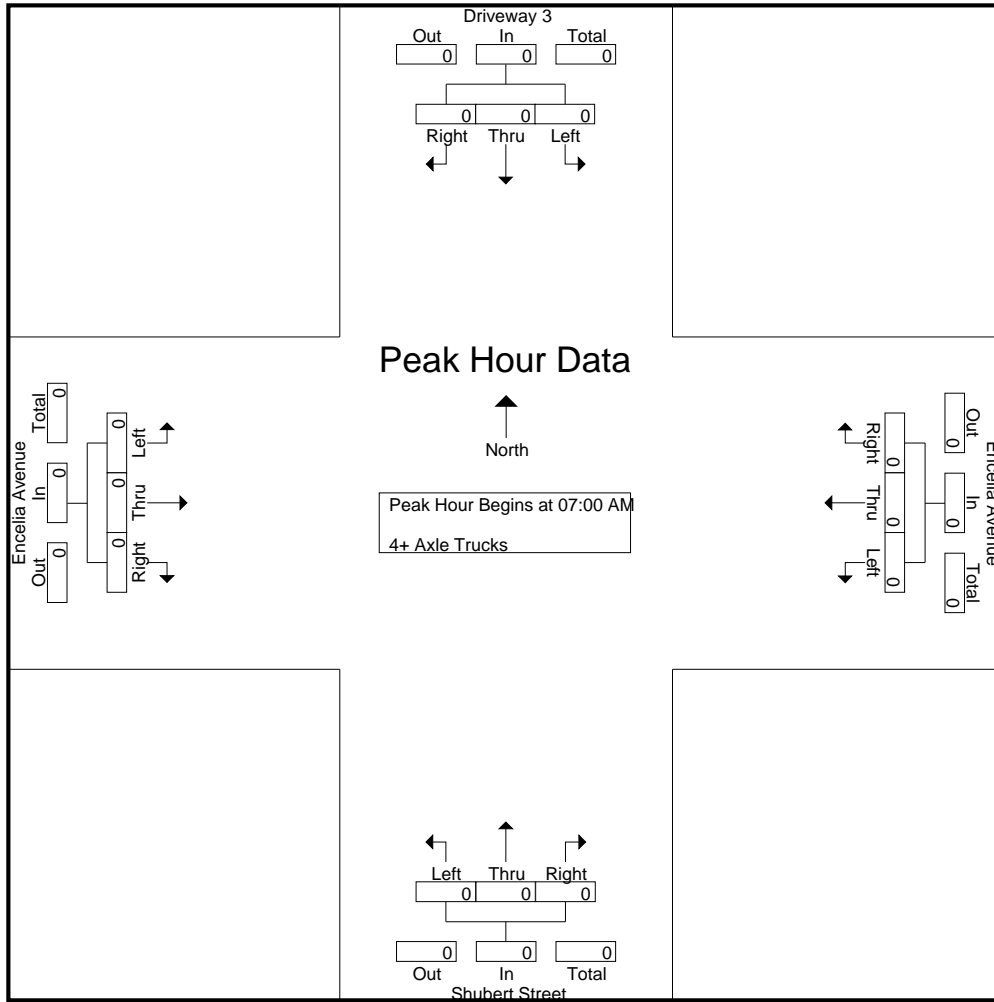
Groups Printed- 4+ Axle Trucks

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia AM
 Site Code : 99919736
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
 Site Code : 99919736
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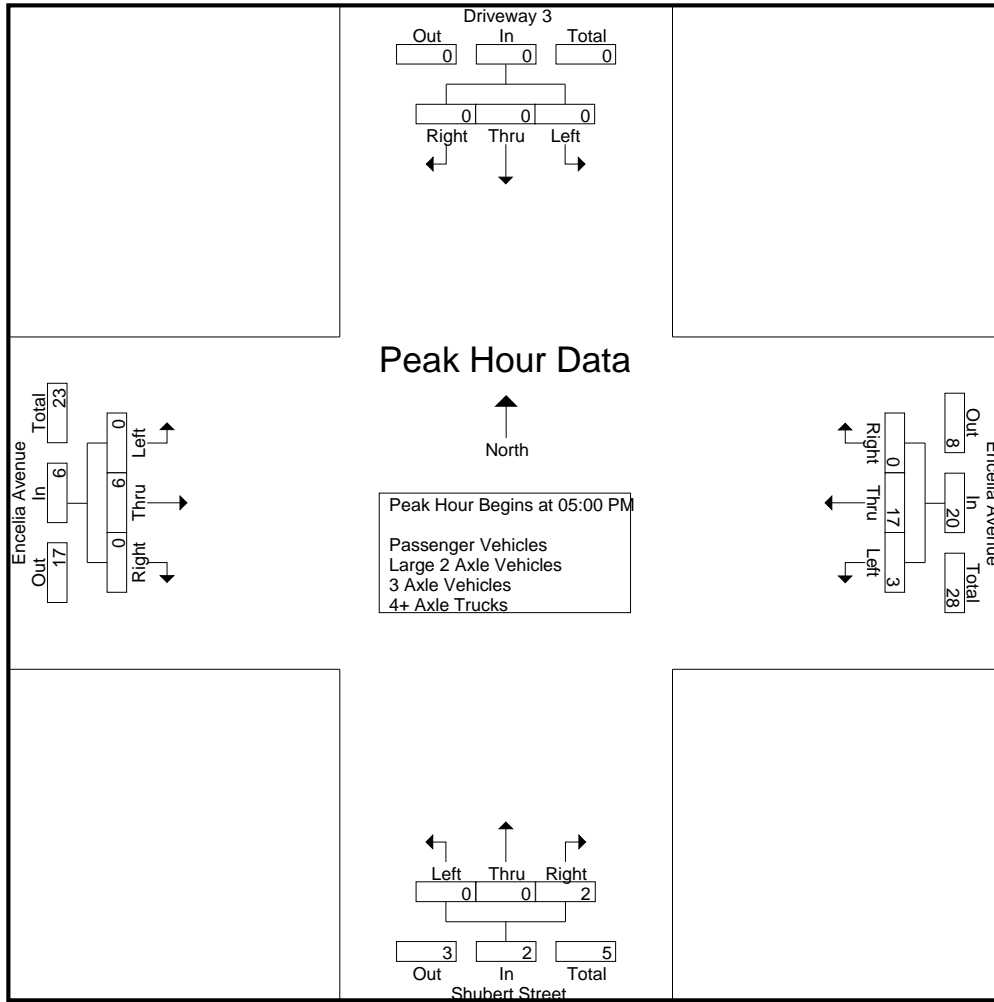
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	4	0	5	0	0	0	0	0	1	1	2	7
04:15 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
04:30 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	1	0	1	4
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total	0	0	0	0	1	13	0	14	0	0	1	1	0	5	1	6	21
05:00 PM	0	0	0	0	1	5	0	6	0	0	1	1	0	1	0	1	8
05:15 PM	0	0	0	0	1	3	0	4	0	0	1	1	0	0	0	0	5
05:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
05:45 PM	0	0	0	0	1	6	0	7	0	0	0	0	0	4	0	4	11
Total	0	0	0	0	3	17	0	20	0	0	2	2	0	6	0	6	28
Grand Total	0	0	0	0	4	30	0	34	0	0	3	3	0	11	1	12	49
Apprch %	0	0	0		11.8	88.2	0		0	0	100		0	91.7	8.3		
Total %	0	0	0	0	8.2	61.2	0	69.4	0	0	6.1	6.1	0	22.4	2	24.5	
Passenger Vehicles	0	0	0	0	4	26	0	30	0	0	3	3	0	11	1	12	45
% Passenger Vehicles	0	0	0	0	100	86.7	0	88.2	0	0	100	100	0	100	100	100	91.8
Large 2 Axle Vehicles	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
% Large 2 Axle Vehicles	0	0	0	0	0	13.3	0	11.8	0	0	0	0	0	0	0	0	8.2
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	1	5	0	6	0	0	1	1	0	1	0	1	8
05:15 PM	0	0	0	0	1	3	0	4	0	0	1	1	0	0	0	0	5
05:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
05:45 PM	0	0	0	0	1	6	0	7	0	0	0	0	0	4	0	4	11
Total Volume	0	0	0	0	3	17	0	20	0	0	2	2	0	6	0	6	28
% App. Total	0	0	0		15	85	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.750	.708	.000	.714	.000	.000	.500	.500	.000	.375	.000	.375	.636

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
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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:

	04:00 PM				05:00 PM				04:30 PM				04:00 PM			
+0 mins.	0	0	0	0	1	5	0	6	0	0	1	1	0	1	1	2
+15 mins.	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	3	0	3	0	0	1	1	0	1	0	1
+45 mins.	0	0	0	0	1	6	0	7	0	0	1	1	0	3	0	3
Total Volume	0	0	0	0	3	17	0	20	0	0	3	3	0	5	1	6
% App. Total	0	0	0	0	15	85	0	100	0	0	100		0	83.3	16.7	
PHF	.000	.000	.000	.000	.750	.708	.000	.714	.000	.000	.750	.750	.000	.417	.250	.500

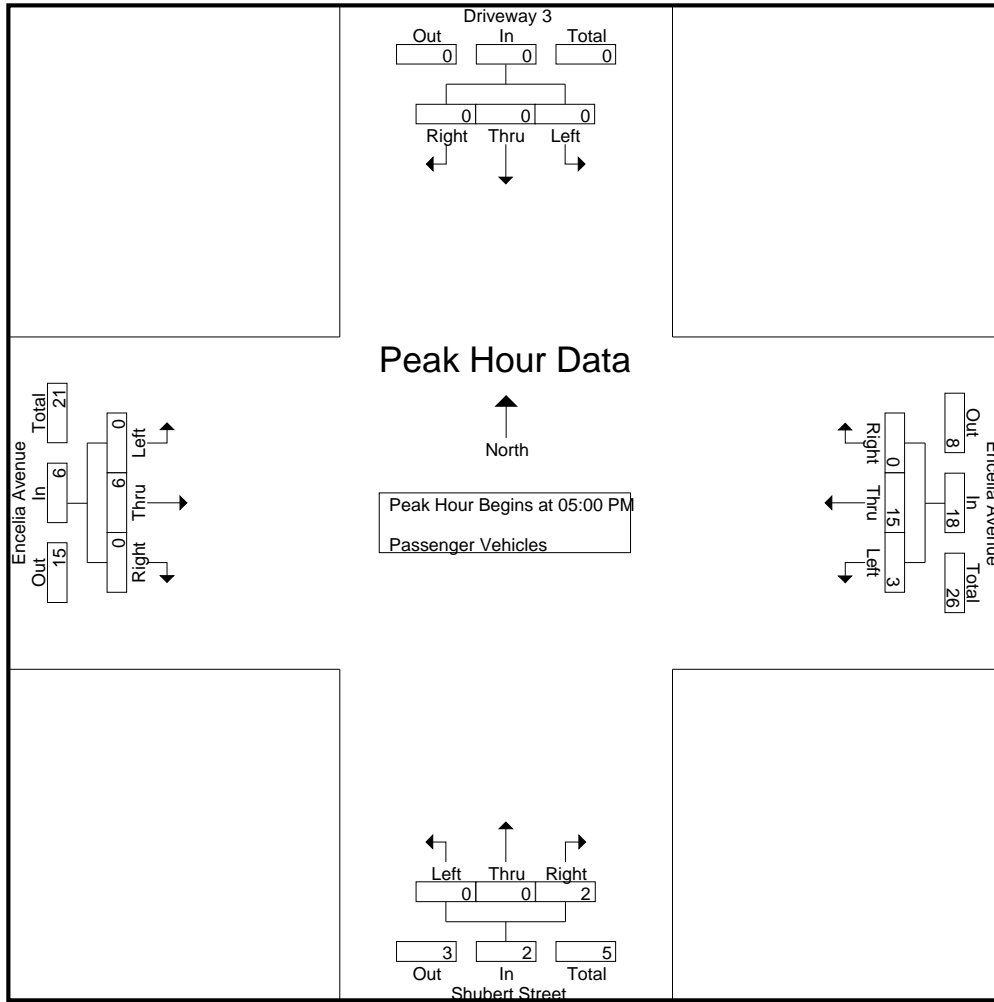
City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
 Site Code : 99919736
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Groups Printed- Passenger Vehicles

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	3	0	4	0	0	0	0	0	1	1	2	6
04:15 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total	0	0	0	0	1	11	0	12	0	0	1	1	0	5	1	6	19
05:00 PM	0	0	0	0	1	5	0	6	0	0	1	1	0	1	0	1	8
05:15 PM	0	0	0	0	1	2	0	3	0	0	1	1	0	0	0	0	4
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	1	6	0	7	0	0	0	0	0	4	0	4	11
Total	0	0	0	0	3	15	0	18	0	0	2	2	0	6	0	6	26
Grand Total	0	0	0	0	4	26	0	30	0	0	3	3	0	11	1	12	45
Apprch %	0	0	0		13.3	86.7	0		0	0	100		0	91.7	8.3		
Total %	0	0	0		8.9	57.8	0	66.7	0	0	6.7	6.7	0	24.4	2.2	26.7	

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	1	5	0	6	0	0	1	1	0	1	0	1	8
05:15 PM	0	0	0	0	1	2	0	3	0	0	1	1	0	0	0	0	4
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	1	6	0	7	0	0	0	0	0	4	0	4	11
Total Volume	0	0	0	0	3	15	0	18	0	0	2	2	0	6	0	6	26
% App. Total	0	0	0		16.7	83.3	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.750	.625	.000	.643	.000	.000	.500	.500	.000	.375	.000	.375	.591



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	1	5	0	6	0	0	1	1	0	0	1	0	1
+15 mins.	0	0	0	0	1	2	0	3	0	0	1	1	0	0	0	0	0
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	1	6	0	7	0	0	0	0	0	4	0	0	4
Total Volume	0	0	0	0	3	15	0	18	0	0	2	2	0	6	0	0	6
% App. Total	0	0	0	0	16.7	83.3	0	0	0	0	100	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.750	.625	.000	.643	.000	.000	.500	.500	.000	.375	.000	.375	

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
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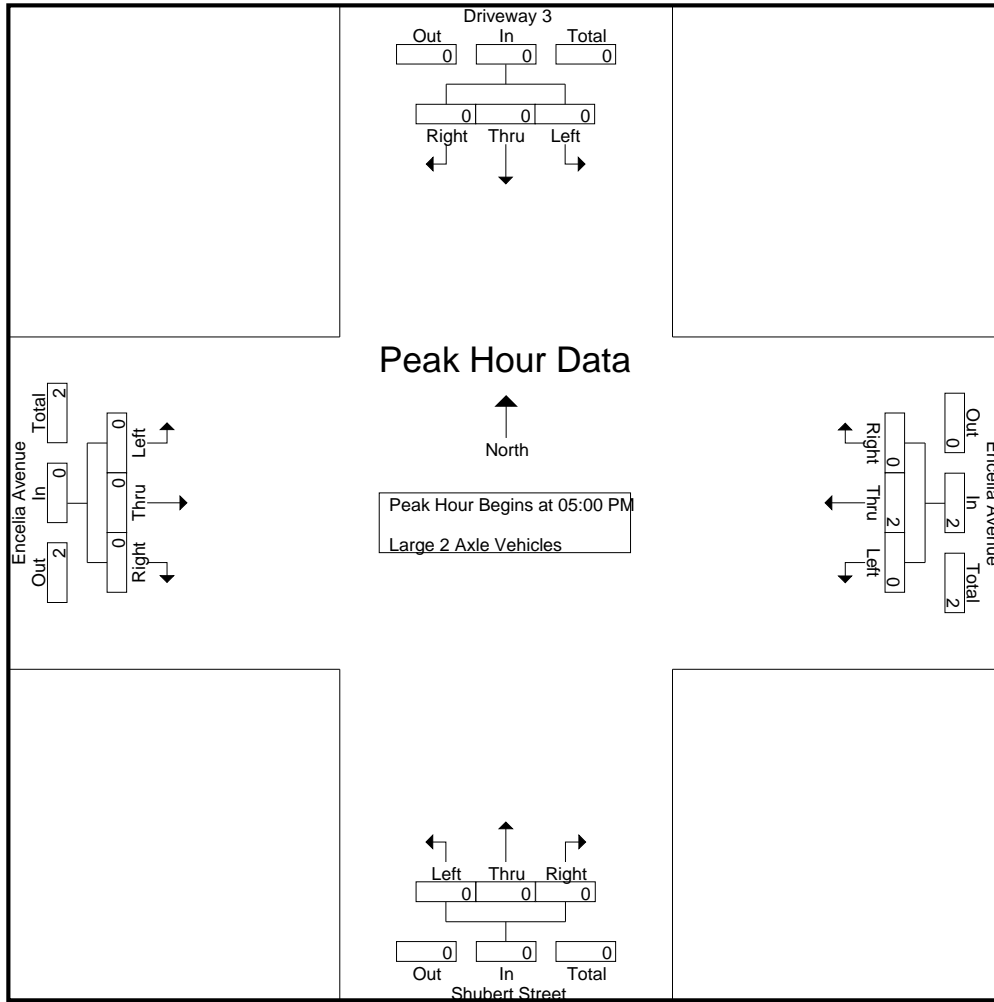
Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
Apprch %	0	0	0		0	100	0		0	0	0		0	0	0		
Total %	0	0	0		0	100	0	100	0	0	0		0	0	0		

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.500

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
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 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
 Site Code : 99919736
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	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	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
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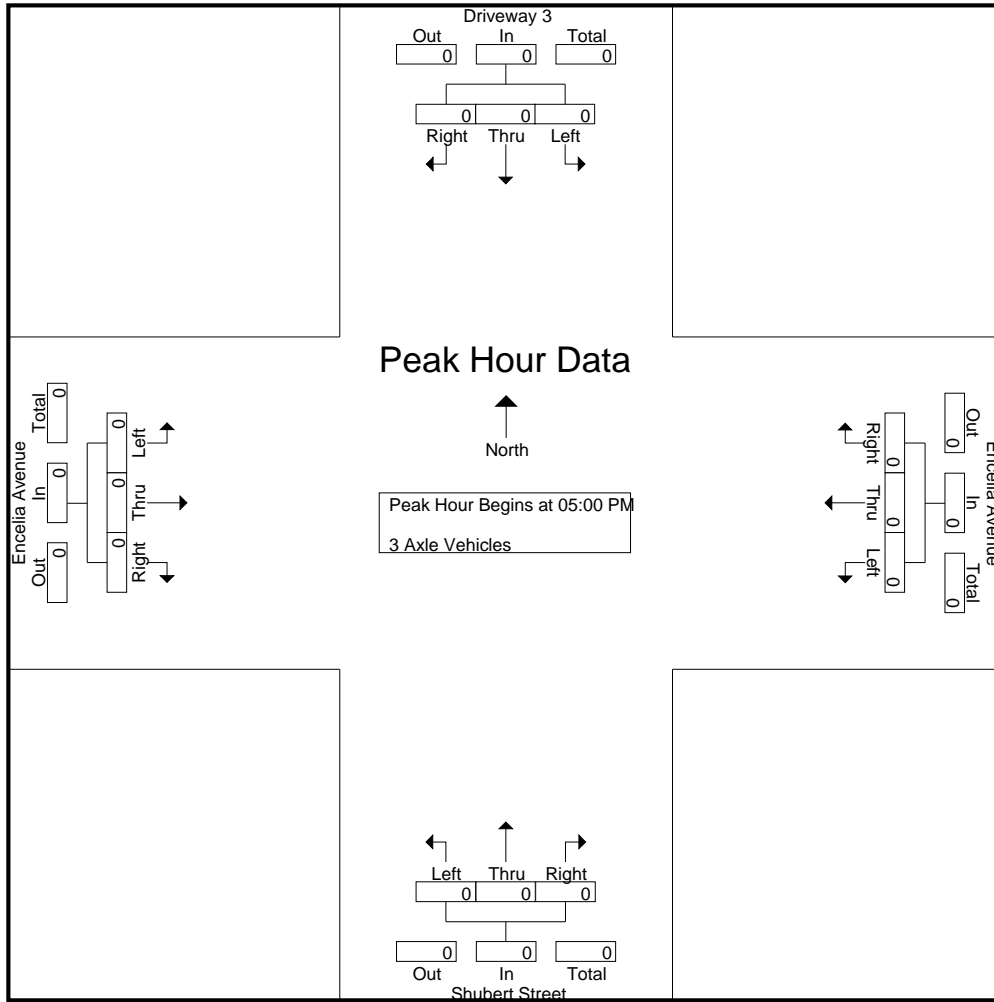
Groups Printed- 3 Axle Vehicles

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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 Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
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 Start Date : 10/30/2019
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

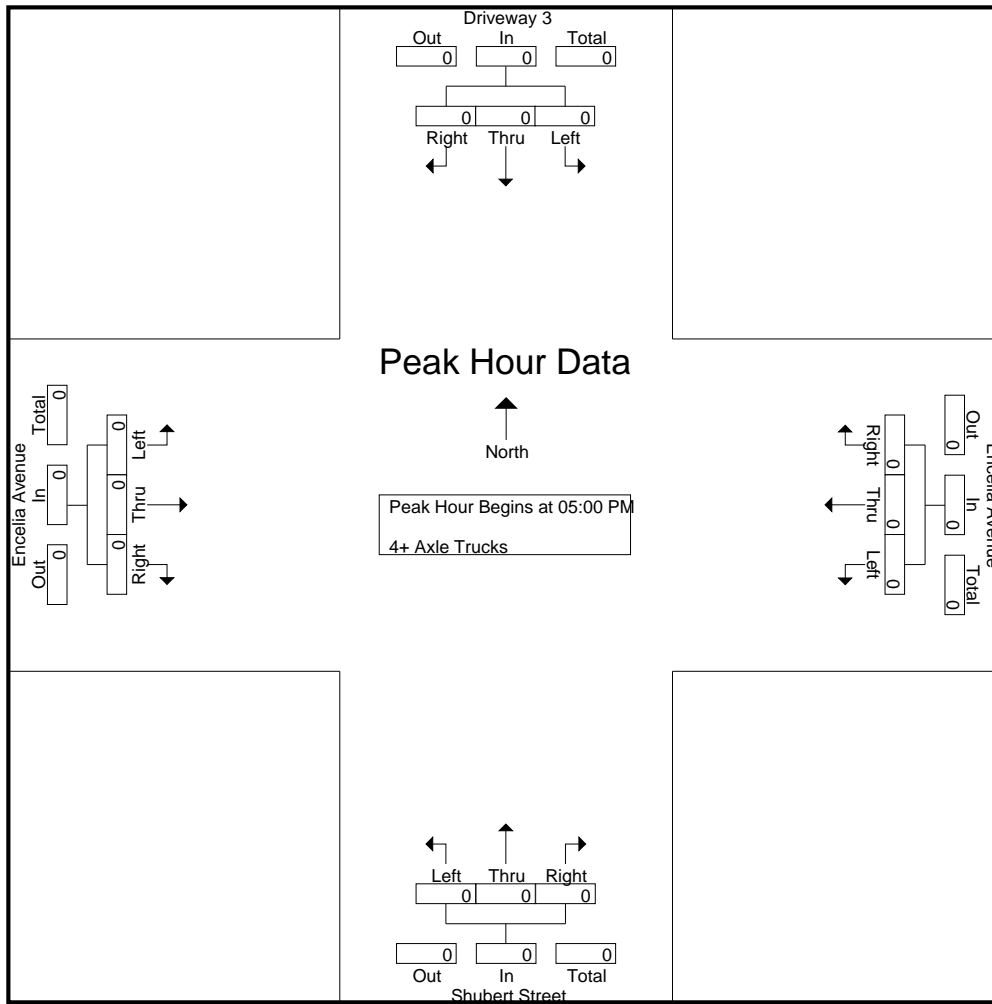
Groups Printed- 4+ Axle Trucks

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 3 Southbound				Encelia Avenue Westbound				Shubert Street Northbound				Encelia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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 Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Driveway 3/Shubert Street
 E/W: Encelia Avenue
 Weather: Clear

File Name : 17_MRV_DW3_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

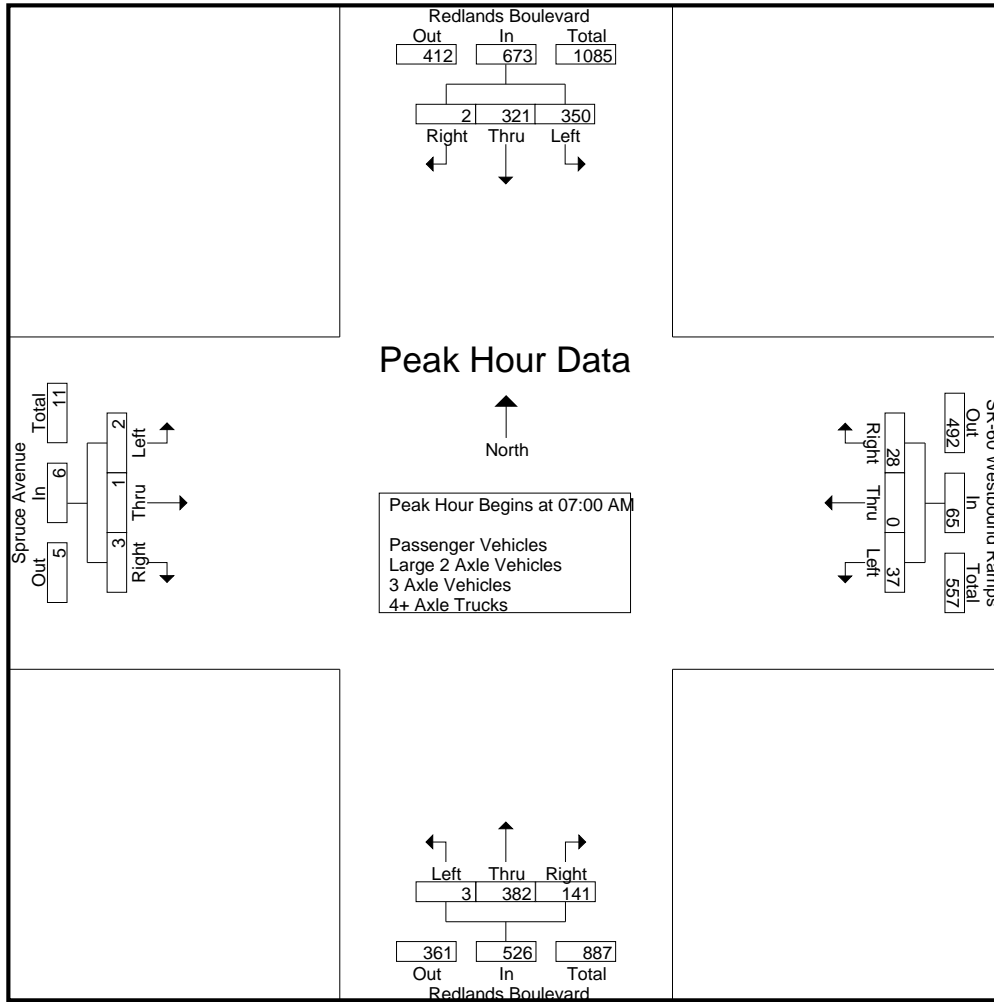
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	91	81	0	172	11	0	9	20	0	139	42	181	0	0	2	2	375
07:15 AM	84	76	0	160	9	0	7	16	0	96	41	137	0	0	1	1	314
07:30 AM	84	91	1	176	9	0	4	13	2	68	36	106	1	0	0	1	296
07:45 AM	91	73	1	165	8	0	8	16	1	79	22	102	1	1	0	2	285
Total	350	321	2	673	37	0	28	65	3	382	141	526	2	1	3	6	1270
08:00 AM	71	64	1	136	9	0	3	12	2	97	36	135	0	2	1	3	286
08:15 AM	64	43	1	108	7	0	10	17	0	121	24	145	1	1	0	2	272
08:30 AM	51	47	1	99	4	0	6	10	0	91	37	128	0	0	0	0	237
08:45 AM	57	36	1	94	3	0	7	10	3	99	34	136	0	0	2	2	242
Total	243	190	4	437	23	0	26	49	5	408	131	544	1	3	3	7	1037
Grand Total	593	511	6	1110	60	0	54	114	8	790	272	1070	3	4	6	13	2307
Apprch %	53.4	46	0.5		52.6	0	47.4		0.7	73.8	25.4		23.1	30.8	46.2		
Total %	25.7	22.1	0.3	48.1	2.6	0	2.3	4.9	0.3	34.2	11.8	46.4	0.1	0.2	0.3	0.6	
Passenger Vehicles	584	492	6	1082	58	0	51	109	7	761	251	1019	3	3	6	12	2222
% Passenger Vehicles	98.5	96.3	100	97.5	96.7	0	94.4	95.6	87.5	96.3	92.3	95.2	100	75	100	92.3	96.3
Large 2 Axle Vehicles	7	14	0	21	2	0	1	3	0	17	6	23	0	0	0	0	47
% Large 2 Axle Vehicles	1.2	2.7	0	1.9	3.3	0	1.9	2.6	0	2.2	2.2	2.1	0	0	0	0	2
3 Axle Vehicles	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
% 3 Axle Vehicles	0	0.4	0	0.2	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0.1
4+ Axle Trucks	2	3	0	5	0	0	2	2	1	11	15	27	0	1	0	1	35
% 4+ Axle Trucks	0.3	0.6	0	0.5	0	0	3.7	1.8	12.5	1.4	5.5	2.5	0	25	0	7.7	1.5

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	91	81	0	172	11	0	9	20	0	139	42	181	0	0	2	2	375
07:15 AM	84	76	0	160	9	0	7	16	0	96	41	137	0	0	1	1	314
07:30 AM	84	91	1	176	9	0	4	13	2	68	36	106	1	0	0	1	296
07:45 AM	91	73	1	165	8	0	8	16	1	79	22	102	1	1	0	2	285
Total Volume	350	321	2	673	37	0	28	65	3	382	141	526	2	1	3	6	1270
% App. Total	52	47.7	0.3		56.9	0	43.1		0.6	72.6	26.8		33.3	16.7	50		
PHF	.962	.882	.500	.956	.841	.000	.778	.813	.375	.687	.839	.727	.500	.250	.375	.750	.847

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 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:

	07:00 AM				07:00 AM				08:00 AM				07:30 AM			
+0 mins.	91	81	0	172	11	0	9	20	2	97	36	135	1	0	0	1
+15 mins.	84	76	0	160	9	0	7	16	0	121	24	145	1	1	0	2
+30 mins.	84	91	1	176	9	0	4	13	0	91	37	128	0	2	1	3
+45 mins.	91	73	1	165	8	0	8	16	3	99	34	136	1	1	0	2
Total Volume	350	321	2	673	37	0	28	65	5	408	131	544	3	4	1	8
% App. Total	52	47.7	0.3		56.9	0	43.1		0.9	75	24.1		37.5	50	12.5	
PHF	.962	.882	.500	.956	.841	.000	.778	.813	.417	.843	.885	.938	.750	.500	.250	.667

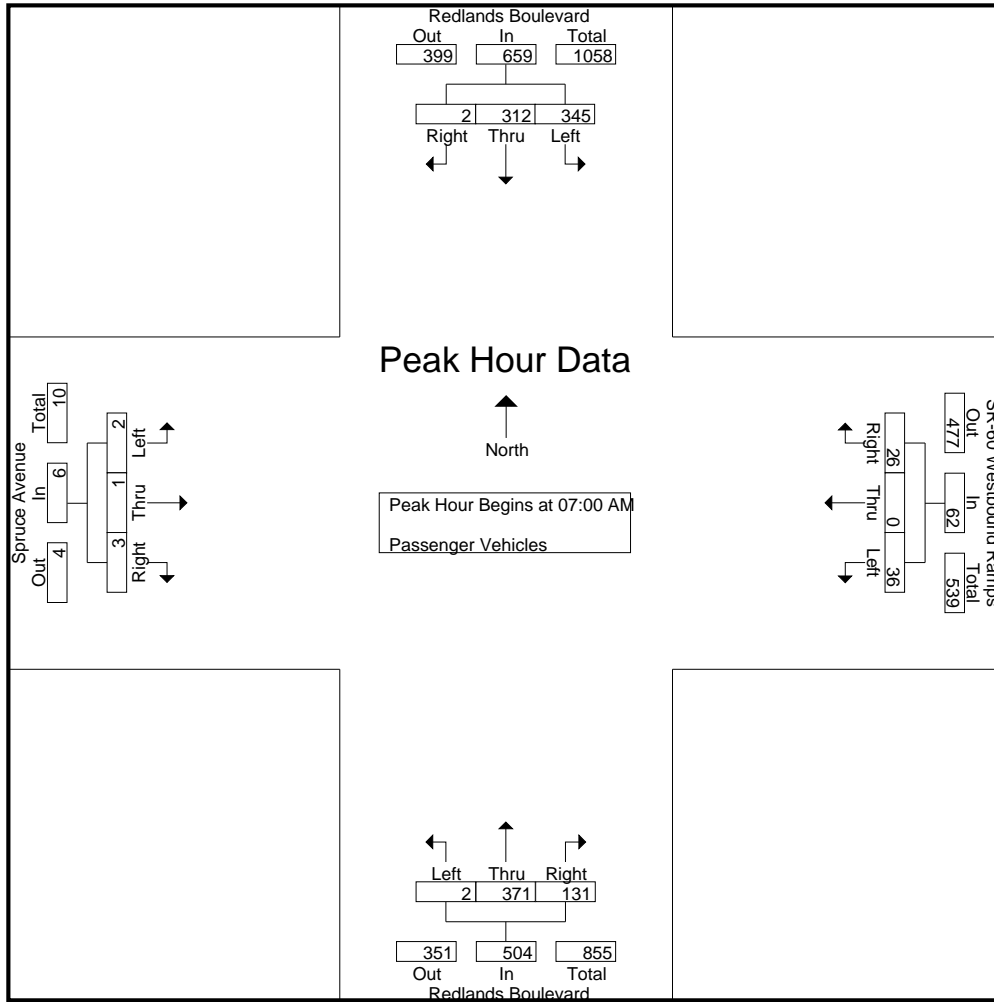
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	88	79	0	167	10	0	7	17	0	134	40	174	0	0	2	2	360
07:15 AM	83	76	0	159	9	0	7	16	0	94	38	132	0	0	1	1	308
07:30 AM	83	85	1	169	9	0	4	13	1	65	33	99	1	0	0	1	282
07:45 AM	91	72	1	164	8	0	8	16	1	78	20	99	1	1	0	2	281
Total	345	312	2	659	36	0	26	62	2	371	131	504	2	1	3	6	1231
08:00 AM	71	61	1	133	8	0	3	11	2	93	33	128	0	1	1	2	274
08:15 AM	61	41	1	103	7	0	10	17	0	118	22	140	1	1	0	2	262
08:30 AM	50	43	1	94	4	0	6	10	0	87	33	120	0	0	0	0	224
08:45 AM	57	35	1	93	3	0	6	9	3	92	32	127	0	0	2	2	231
Total	239	180	4	423	22	0	25	47	5	390	120	515	1	2	3	6	991
Grand Total	584	492	6	1082	58	0	51	109	7	761	251	1019	3	3	6	12	2222
Apprch %	54	45.5	0.6		53.2	0	46.8		0.7	74.7	24.6		25	25	50		
Total %	26.3	22.1	0.3	48.7	2.6	0	2.3	4.9	0.3	34.2	11.3	45.9	0.1	0.1	0.3	0.5	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	88	79	0	167	10	0	7	17	0	134	40	174	0	0	2	2	360
07:15 AM	83	76	0	159	9	0	7	16	0	94	38	132	0	0	1	1	308
07:30 AM	83	85	1	169	9	0	4	13	1	65	33	99	1	0	0	1	282
07:45 AM	91	72	1	164	8	0	8	16	1	78	20	99	1	1	0	2	281
Total Volume	345	312	2	659	36	0	26	62	2	371	131	504	2	1	3	6	1231
% App. Total	52.4	47.3	0.3		58.1	0	41.9		0.4	73.6	26		33.3	16.7	50		
PHF	.948	.918	.500	.975	.900	.000	.813	.912	.500	.692	.819	.724	.500	.250	.375	.750	.855



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	88	79	0	167	10	0	7	17	0	134	40	174	0	0	2	2
+15 mins.	83	76	0	159	9	0	7	16	0	94	38	132	0	0	1	1
+30 mins.	83	85	1	169	9	0	4	13	1	65	33	99	1	0	0	1
+45 mins.	91	72	1	164	8	0	8	16	1	78	20	99	1	1	0	2
Total Volume	345	312	2	659	36	0	26	62	2	371	131	504	2	1	3	6
% App. Total	52.4	47.3	0.3		58.1	0	41.9		0.4	73.6	26		33.3	16.7	50	
PHF	.948	.918	.500	.975	.900	.000	.813	.912	.500	.692	.819	.724	.500	.250	.375	.750

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

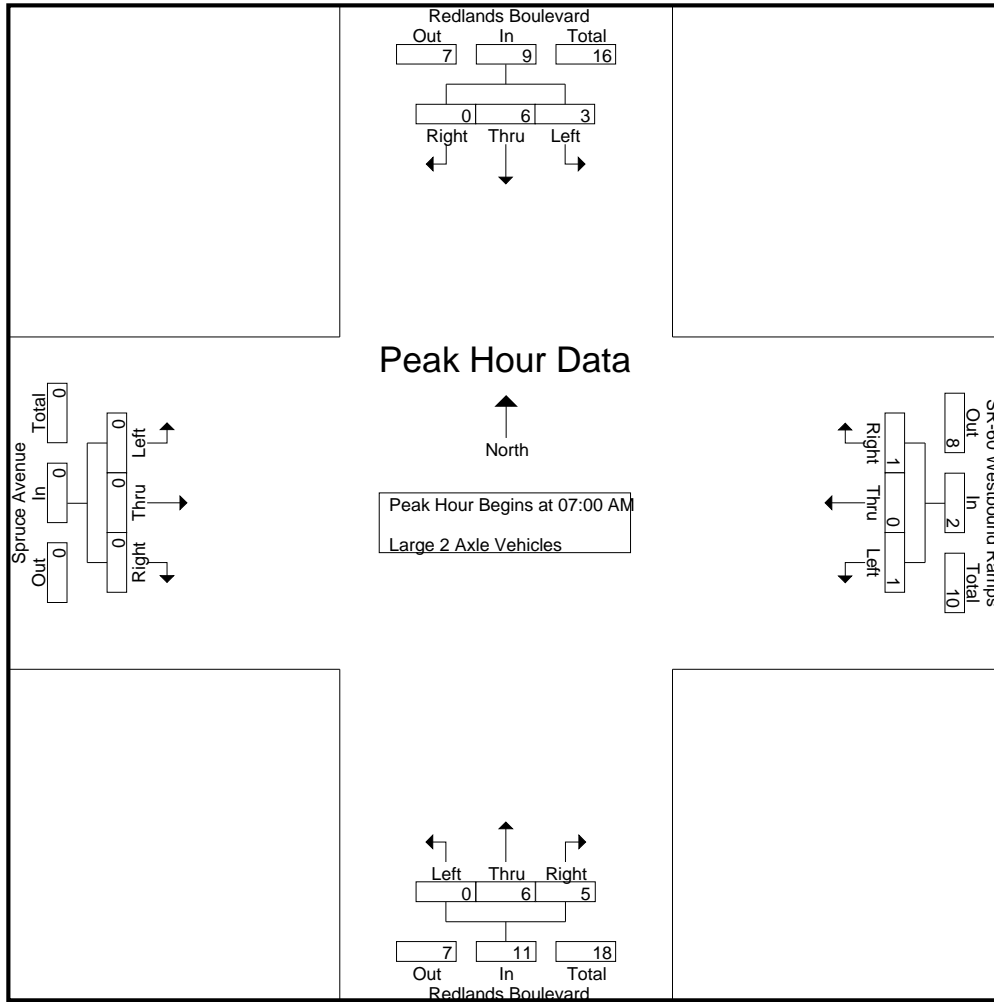
Groups Printed- Large 2 Axle Vehicles

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	2	0	5	1	0	1	2	0	3	1	4	0	0	0	0	11
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	4	0	4	0	0	0	0	0	1	3	4	0	0	0	0	8
07:45 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2
Total	3	6	0	9	1	0	1	2	0	6	5	11	0	0	0	0	22
08:00 AM	0	2	0	2	1	0	0	1	0	4	0	4	0	0	0	0	7
08:15 AM	3	1	0	4	0	0	0	0	0	2	1	3	0	0	0	0	7
08:30 AM	1	4	0	5	0	0	0	0	0	1	0	1	0	0	0	0	6
08:45 AM	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
Total	4	8	0	12	1	0	0	1	0	11	1	12	0	0	0	0	25
Grand Total	7	14	0	21	2	0	1	3	0	17	6	23	0	0	0	0	47
Apprch %	33.3	66.7	0		66.7	0	33.3		0	73.9	26.1		0	0	0		
Total %	14.9	29.8	0	44.7	4.3	0	2.1	6.4	0	36.2	12.8	48.9	0	0	0	0	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	2	0	5	1	0	1	2	0	3	1	4	0	0	0	0	11
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	4	0	4	0	0	0	0	0	1	3	4	0	0	0	0	8
07:45 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2
Total Volume	3	6	0	9	1	0	1	2	0	6	5	11	0	0	0	0	22
% App. Total	33.3	66.7	0		50	0	50		0	54.5	45.5		0	0	0		
PHF	.250	.375	.000	.450	.250	.000	.250	.250	.000	.500	.417	.688	.000	.000	.000	.000	.500

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	2	0	5	1	0	1	2	0	3	1	4	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	4	0	4	0	0	0	0	0	1	3	4	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0
Total Volume	3	6	0	9	1	0	1	2	0	6	5	11	0	0	0	0
% App. Total	33.3	66.7	0		50	0	50		0	54.5	45.5		0	0	0	
PHF	.250	.375	.000	.450	.250	.000	.250	.250	.000	.500	.417	.688	.000	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

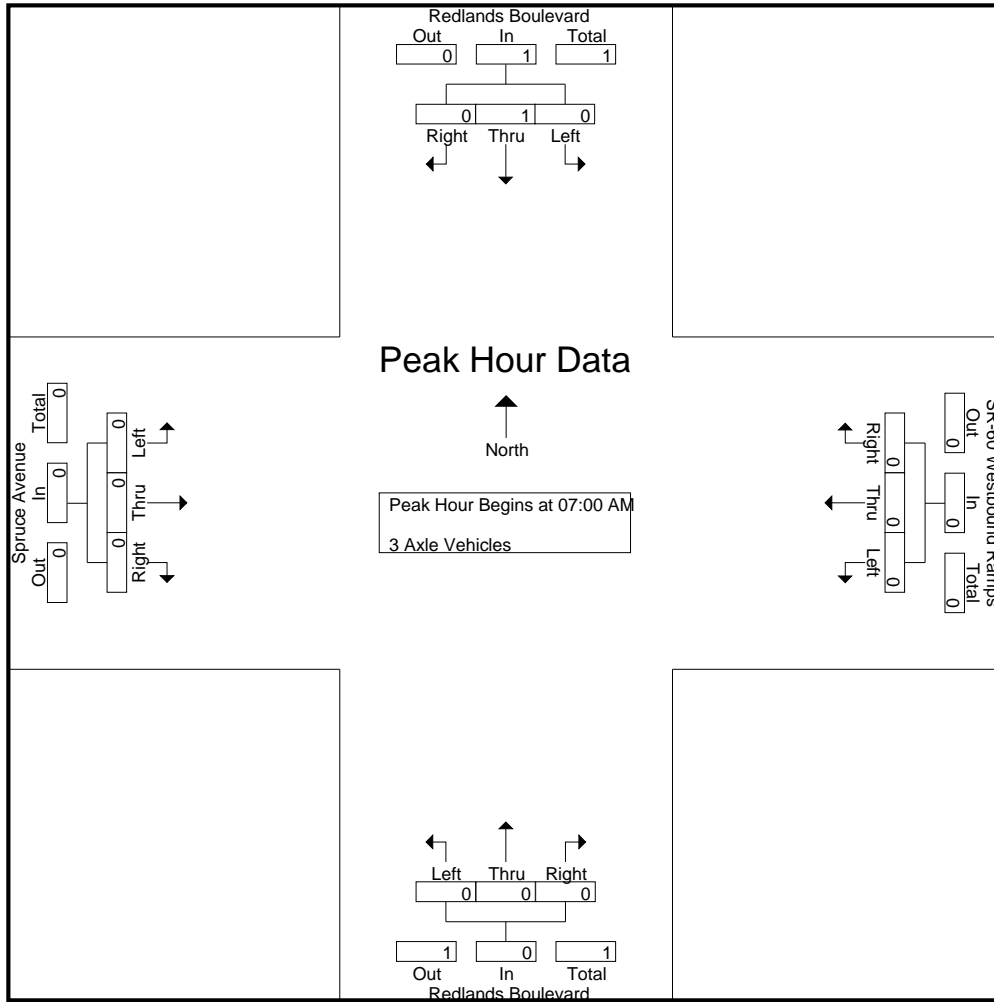
Groups Printed- 3 Axle Vehicles

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 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
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	1	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Grand Total	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	66.7	0	66.7	0	0	0	0	0	33.3	0	33.3	0	0	0	0	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 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	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

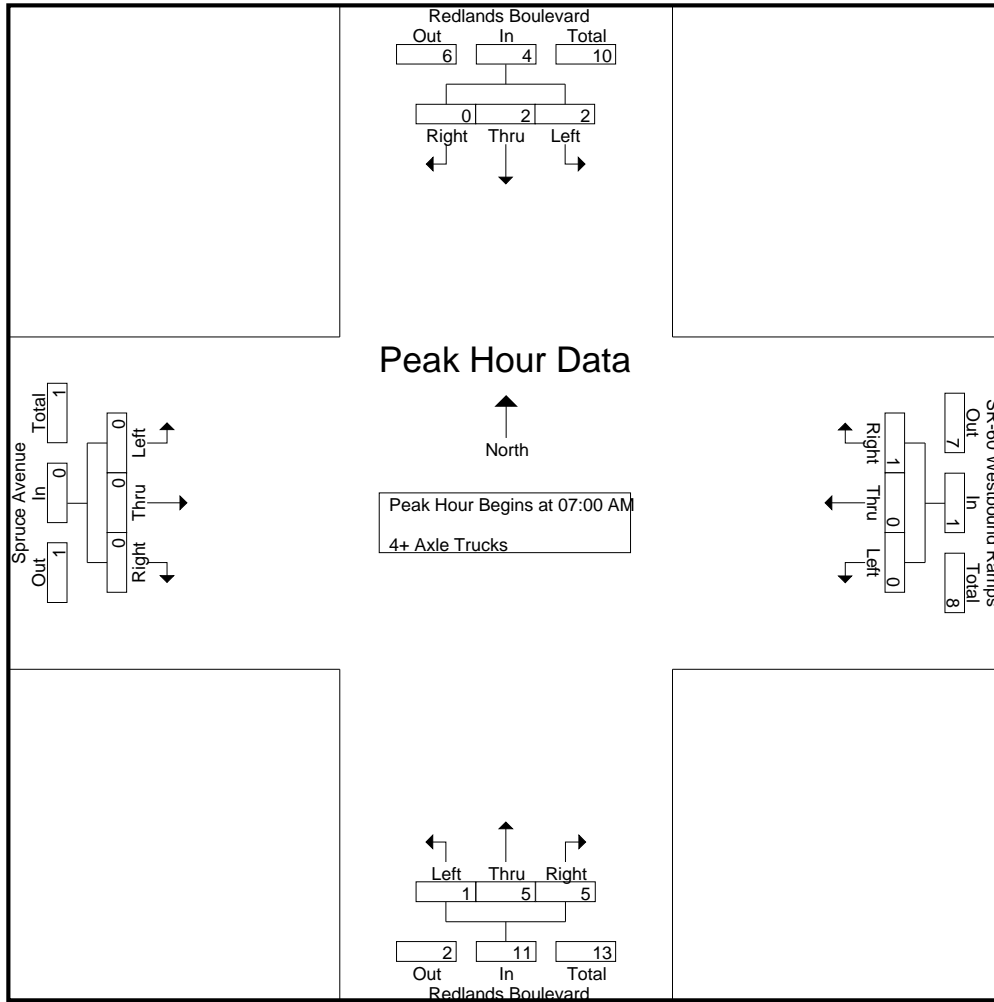
Groups Printed- 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	0	2	1	3	0	0	0	0	4
07:15 AM	1	0	0	1	0	0	0	0	0	1	3	4	0	0	0	0	5
07:30 AM	1	1	0	2	0	0	0	0	1	2	0	3	0	0	0	0	5
07:45 AM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
Total	2	2	0	4	0	0	1	1	1	5	5	11	0	0	0	0	16
08:00 AM	0	1	0	1	0	0	0	0	0	0	3	3	0	1	0	1	5
08:15 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	7
08:45 AM	0	0	0	0	0	0	1	1	0	2	2	4	0	0	0	0	5
Total	0	1	0	1	0	0	1	1	0	6	10	16	0	1	0	1	19
Grand Total	2	3	0	5	0	0	2	2	1	11	15	27	0	1	0	1	35
Apprch %	40	60	0		0	0	100		3.7	40.7	55.6		0	100	0		
Total %	5.7	8.6	0	14.3	0	0	5.7	5.7	2.9	31.4	42.9	77.1	0	2.9	0	2.9	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	1	1	0	2	1	3	0	0	0	0	4
07:15 AM	1	0	0	1	0	0	0	0	0	1	3	4	0	0	0	0	5
07:30 AM	1	1	0	2	0	0	0	0	1	2	0	3	0	0	0	0	5
07:45 AM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
Total Volume	2	2	0	4	0	0	1	1	1	5	5	11	0	0	0	0	16
% App. Total	50	50	0		0	0	100		9.1	45.5	45.5		0	0	0		
PHF	.500	.500	.000	.500	.000	.000	.250	.250	.250	.625	.417	.688	.000	.000	.000	.000	.800

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	1	1	0	2	1	3	0	0	0	0
+15 mins.	1	0	0	1	0	0	0	0	0	1	3	4	0	0	0	0
+30 mins.	1	1	0	2	0	0	0	0	1	2	0	3	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0
Total Volume	2	2	0	4	0	0	1	1	1	5	5	11	0	0	0	0
% App. Total	50	50	0		0	0	100		9.1	45.5	45.5		0	0	0	
PHF	.500	.500	.000	.500	.000	.000	.250	.250	.250	.625	.417	.688	.000	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

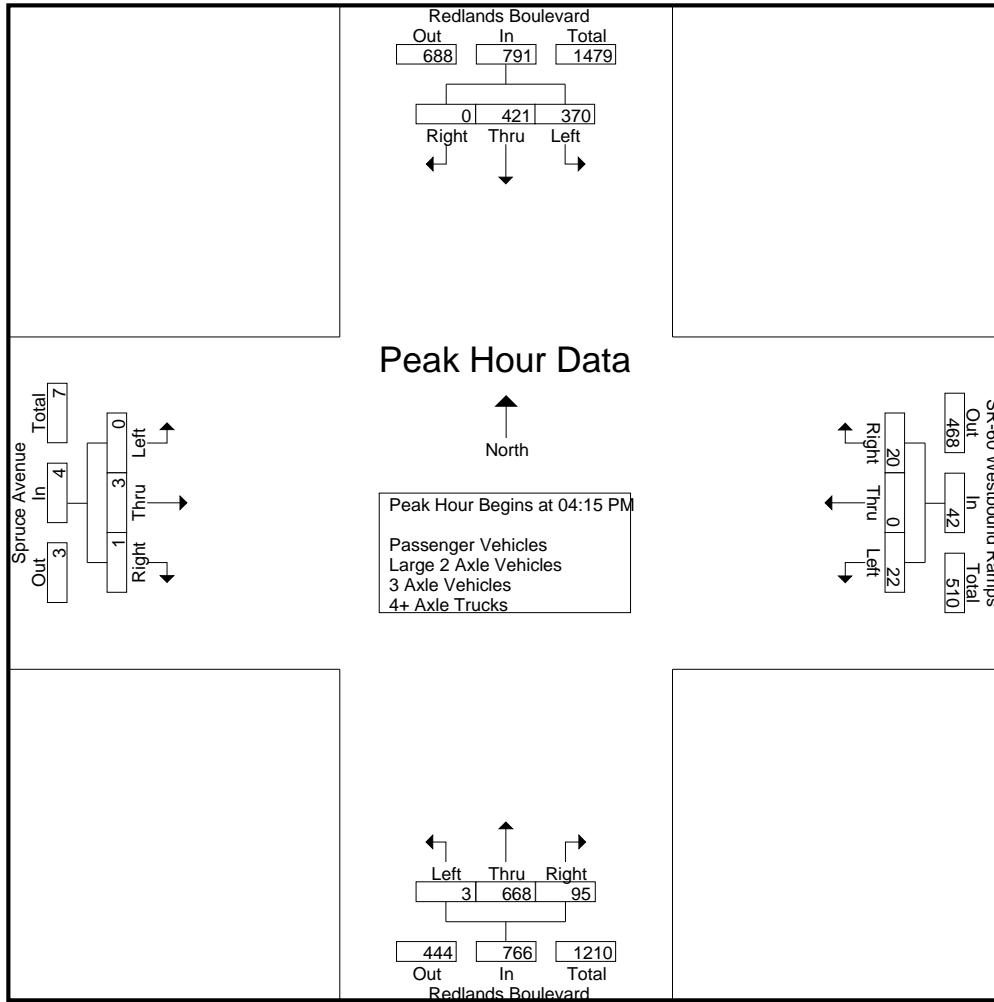
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	73	99	0	172	8	0	4	12	3	148	29	180	1	0	3	4	368
04:15 PM	107	102	0	209	6	0	4	10	2	161	18	181	0	2	1	3	403
04:30 PM	76	106	0	182	5	0	4	9	0	180	28	208	0	1	0	1	400
04:45 PM	94	101	0	195	7	0	6	13	1	174	27	202	0	0	0	0	410
Total	350	408	0	758	26	0	18	44	6	663	102	771	1	3	4	8	1581
05:00 PM	93	112	0	205	4	0	6	10	0	153	22	175	0	0	0	0	390
05:15 PM	84	91	0	175	6	0	1	7	2	166	26	194	0	1	1	2	378
05:30 PM	99	91	3	193	10	0	2	12	4	155	20	179	0	2	1	3	387
05:45 PM	92	96	0	188	8	0	3	11	3	153	21	177	0	2	6	8	384
Total	368	390	3	761	28	0	12	40	9	627	89	725	0	5	8	13	1539
Grand Total	718	798	3	1519	54	0	30	84	15	1290	191	1496	1	8	12	21	3120
Apprch %	47.3	52.5	0.2		64.3	0	35.7		1	86.2	12.8		4.8	38.1	57.1		
Total %	23	25.6	0.1	48.7	1.7	0	1	2.7	0.5	41.3	6.1	47.9	0	0.3	0.4	0.7	
Passenger Vehicles	699	777	3	1479	51	0	30	81	12	1258	185	1455	1	5	10	16	3031
% Passenger Vehicles	97.4	97.4	100	97.4	94.4	0	100	96.4	80	97.5	96.9	97.3	100	62.5	83.3	76.2	97.1
Large 2 Axle Vehicles	16	17	0	33	2	0	0	2	1	26	3	30	0	1	1	2	67
% Large 2 Axle Vehicles	2.2	2.1	0	2.2	3.7	0	0	2.4	6.7	2	1.6	2	0	12.5	8.3	9.5	2.1
3 Axle Vehicles	0	3	0	3	0	0	0	0	1	2	0	3	0	1	0	1	7
% 3 Axle Vehicles	0	0.4	0	0.2	0	0	0	0	6.7	0.2	0	0.2	0	12.5	0	4.8	0.2
4+ Axle Trucks	3	1	0	4	1	0	0	1	1	4	3	8	0	1	1	2	15
% 4+ Axle Trucks	0.4	0.1	0	0.3	1.9	0	0	1.2	6.7	0.3	1.6	0.5	0	12.5	8.3	9.5	0.5

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	107	102	0	209	6	0	4	10	2	161	18	181	0	2	1	3	403
04:30 PM	76	106	0	182	5	0	4	9	0	180	28	208	0	1	0	1	400
04:45 PM	94	101	0	195	7	0	6	13	1	174	27	202	0	0	0	0	410
05:00 PM	93	112	0	205	4	0	6	10	0	153	22	175	0	0	0	0	390
Total Volume	370	421	0	791	22	0	20	42	3	668	95	766	0	3	1	4	1603
% App. Total	46.8	53.2	0		52.4	0	47.6		0.4	87.2	12.4		0	75	25		
PHF	.864	.940	.000	.946	.786	.000	.833	.808	.375	.928	.848	.921	.000	.375	.250	.333	.977

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
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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				04:00 PM				04:30 PM				05:00 PM			
+0 mins.	107	102	0	209	8	0	4	12	0	180	28	208	0	0	0	0
+15 mins.	76	106	0	182	6	0	4	10	1	174	27	202	0	1	1	2
+30 mins.	94	101	0	195	5	0	4	9	0	153	22	175	0	2	1	3
+45 mins.	93	112	0	205	7	0	6	13	2	166	26	194	0	2	6	8
Total Volume	370	421	0	791	26	0	18	44	3	673	103	779	0	5	8	13
% App. Total	46.8	53.2	0		59.1	0	40.9		0.4	86.4	13.2		0	38.5	61.5	
PHF	.864	.940	.000	.946	.813	.000	.750	.846	.375	.935	.920	.936	.000	.625	.333	.406

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

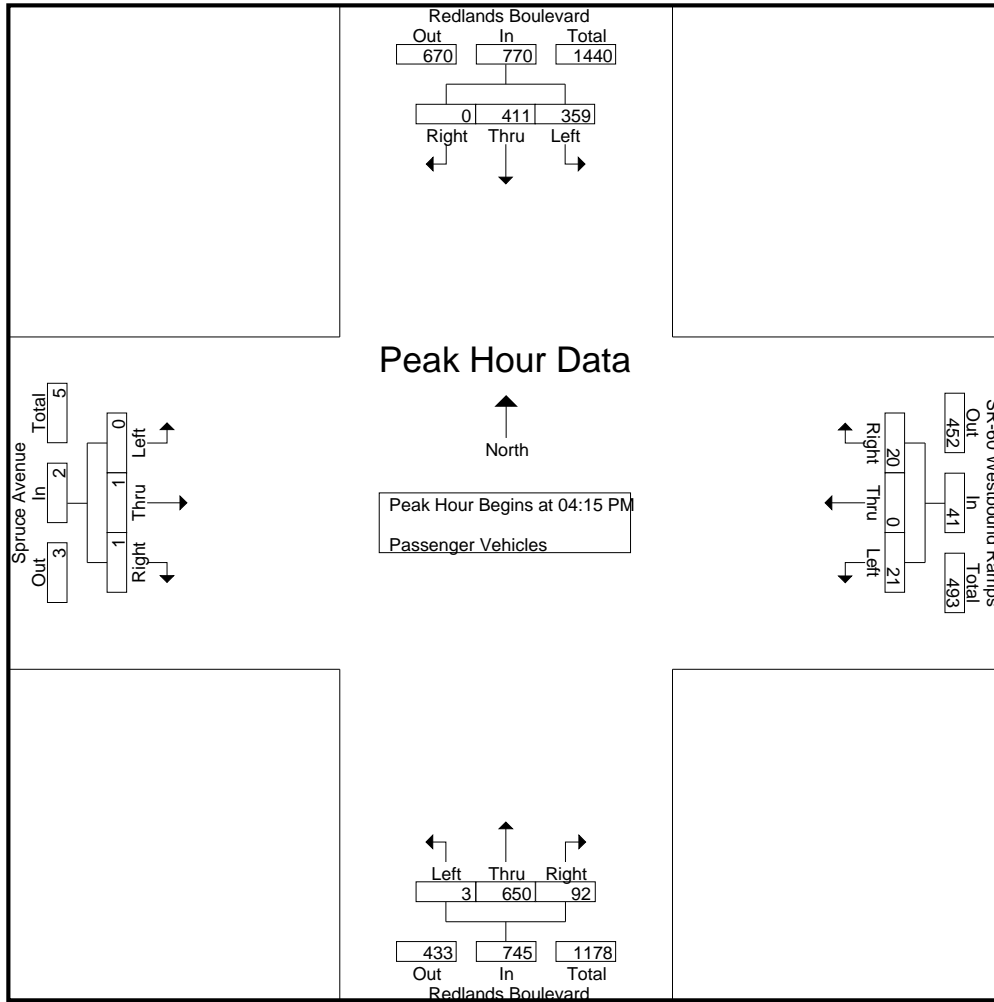
Groups Printed- Passenger Vehicles

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	69	96	0	165	8	0	4	12	3	142	29	174	1	0	2	3	354
04:15 PM	102	98	0	200	6	0	4	10	2	154	18	174	0	1	1	2	386
04:30 PM	73	105	0	178	5	0	4	9	0	176	28	204	0	0	0	0	391
04:45 PM	93	97	0	190	6	0	6	12	1	170	26	197	0	0	0	0	399
Total	337	396	0	733	25	0	18	43	6	642	101	749	1	1	3	5	1530
05:00 PM	91	111	0	202	4	0	6	10	0	150	20	170	0	0	0	0	382
05:15 PM	82	88	0	170	6	0	1	7	2	164	25	191	0	1	1	2	370
05:30 PM	97	90	3	190	9	0	2	11	1	150	20	171	0	1	1	2	374
05:45 PM	92	92	0	184	7	0	3	10	3	152	19	174	0	2	5	7	375
Total	362	381	3	746	26	0	12	38	6	616	84	706	0	4	7	11	1501
Grand Total	699	777	3	1479	51	0	30	81	12	1258	185	1455	1	5	10	16	3031
Apprch %	47.3	52.5	0.2		63	0	37		0.8	86.5	12.7		6.2	31.2	62.5		
Total %	23.1	25.6	0.1	48.8	1.7	0	1	2.7	0.4	41.5	6.1	48	0	0.2	0.3	0.5	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	102	98	0	200	6	0	4	10	2	154	18	174	0	1	1	2	386
04:30 PM	73	105	0	178	5	0	4	9	0	176	28	204	0	0	0	0	391
04:45 PM	93	97	0	190	6	0	6	12	1	170	26	197	0	0	0	0	399
05:00 PM	91	111	0	202	4	0	6	10	0	150	20	170	0	0	0	0	382
Total Volume	359	411	0	770	21	0	20	41	3	650	92	745	0	1	1	2	1558
% App. Total	46.6	53.4	0		51.2	0	48.8		0.4	87.2	12.3		0	50	50		
PHF	.880	.926	.000	.953	.875	.000	.833	.854	.375	.923	.821	.913	.000	.250	.250	.250	.976

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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.	102	98	0	200	6	0	4	10	2	154	18	174	0	1	1	2
+15 mins.	73	105	0	178	5	0	4	9	0	176	28	204	0	0	0	0
+30 mins.	93	97	0	190	6	0	6	12	1	170	26	197	0	0	0	0
+45 mins.	91	111	0	202	4	0	6	10	0	150	20	170	0	0	0	0
Total Volume	359	411	0	770	21	0	20	41	3	650	92	745	0	1	1	2
% App. Total	46.6	53.4	0		51.2	0	48.8		0.4	87.2	12.3		0	50	50	
PHF	.880	.926	.000	.953	.875	.000	.833	.854	.375	.923	.821	.913	.000	.250	.250	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

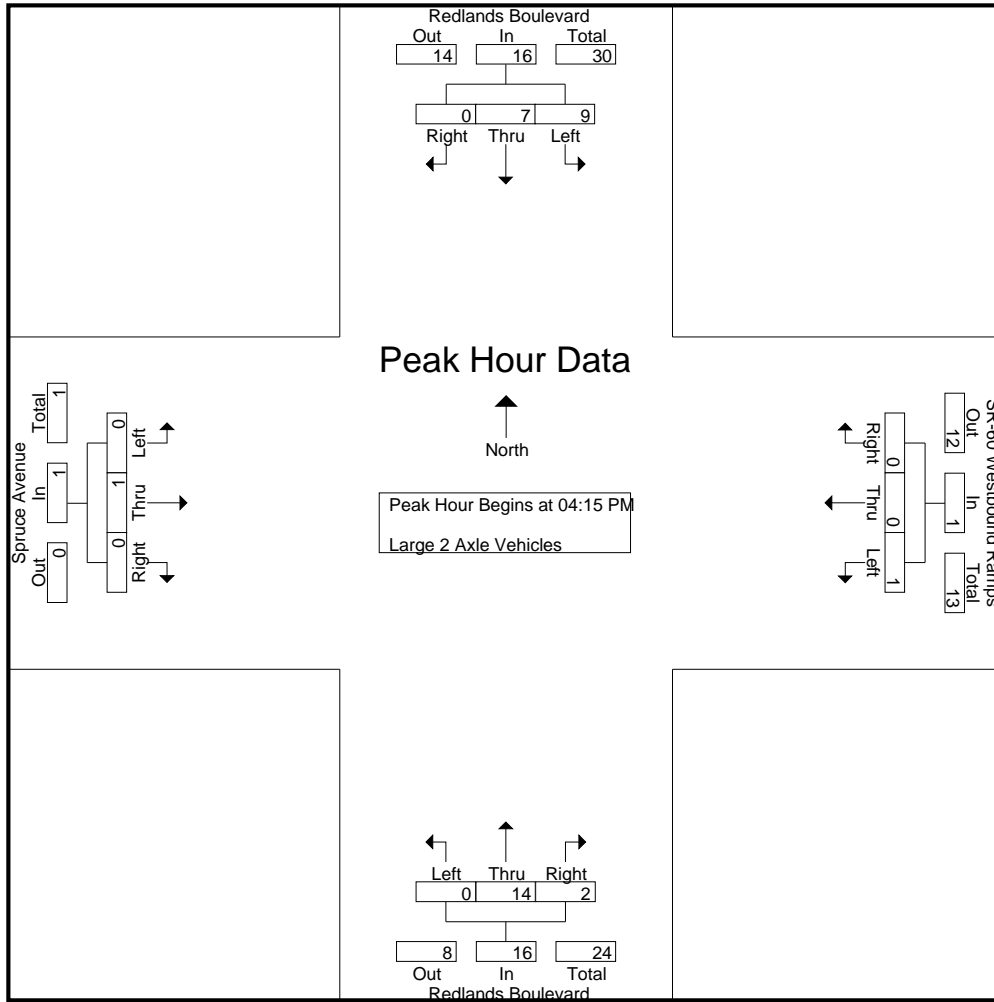
Groups Printed- Large 2 Axle Vehicles

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	3	3	0	6	0	0	0	0	0	5	0	5	0	0	0	0	11
04:15 PM	3	3	0	6	0	0	0	0	0	6	0	6	0	1	0	0	13
04:30 PM	3	0	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
04:45 PM	1	3	0	4	1	0	0	1	0	3	0	3	0	0	0	0	8
Total	10	9	0	19	1	0	0	1	0	16	0	16	0	1	0	1	37
05:00 PM	2	1	0	3	0	0	0	0	0	3	2	5	0	0	0	0	8
05:15 PM	2	2	0	4	0	0	0	0	0	2	1	3	0	0	0	0	7
05:30 PM	2	1	0	3	1	0	0	1	1	4	0	5	0	0	0	0	9
05:45 PM	0	4	0	4	0	0	0	0	0	1	0	1	0	0	1	1	6
Total	6	8	0	14	1	0	0	1	1	10	3	14	0	0	1	1	30
Grand Total	16	17	0	33	2	0	0	2	1	26	3	30	0	1	1	2	67
Apprch %	48.5	51.5	0		100	0	0		3.3	86.7	10		0	50	50		
Total %	23.9	25.4	0	49.3	3	0	0	3	1.5	38.8	4.5	44.8	0	1.5	1.5	3	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	3	3	0	6	0	0	0	0	0	6	0	6	0	1	0	1	13
04:30 PM	3	0	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
04:45 PM	1	3	0	4	1	0	0	1	0	3	0	3	0	0	0	0	8
05:00 PM	2	1	0	3	0	0	0	0	0	3	2	5	0	0	0	0	8
Total Volume	9	7	0	16	1	0	0	1	0	14	2	16	0	1	0	1	34
% App. Total	56.2	43.8	0		100	0	0		0	87.5	12.5		0	100	0		
PHF	.750	.583	.000	.667	.250	.000	.000	.250	.000	.583	.250	.667	.000	.250	.000	.250	.654

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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.	3	3	0	6	0	0	0	0	0	6	0	6	0	1	0	1
+15 mins.	3	0	0	3	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	1	3	0	4	1	0	0	1	0	3	0	3	0	0	0	0
+45 mins.	2	1	0	3	0	0	0	0	0	3	2	5	0	0	0	0
Total Volume	9	7	0	16	1	0	0	1	0	14	2	16	0	1	0	1
% App. Total	56.2	43.8	0		100	0	0		0	87.5	12.5		0	100	0	
PHF	.750	.583	.000	.667	.250	.000	.000	.250	.000	.583	.250	.667	.000	.250	.000	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

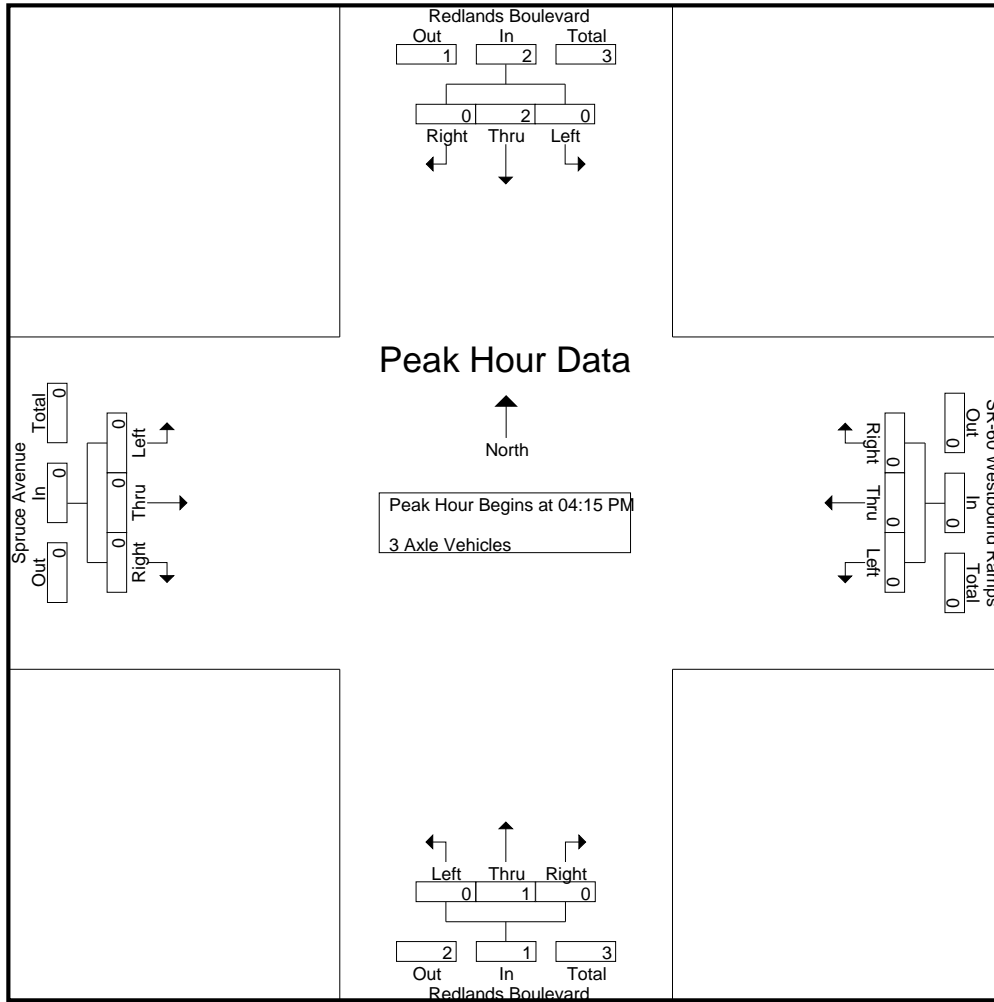
Groups Printed- 3 Axle Vehicles

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	1	0	2	0	1	0	1	3
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	1	1	0	2	0	1	0	1	4
Grand Total	0	3	0	3	0	0	0	0	1	2	0	3	0	1	0	1	7
Apprch %	0	100	0		0	0	0		33.3	66.7	0		0	100	0		
Total %	0	42.9	0	42.9	0	0	0	0	14.3	28.6	0	42.9	0	14.3	0	14.3	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.375

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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	1	0	1	0	0	0	0	0	0	0	0	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	1	0	1	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	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

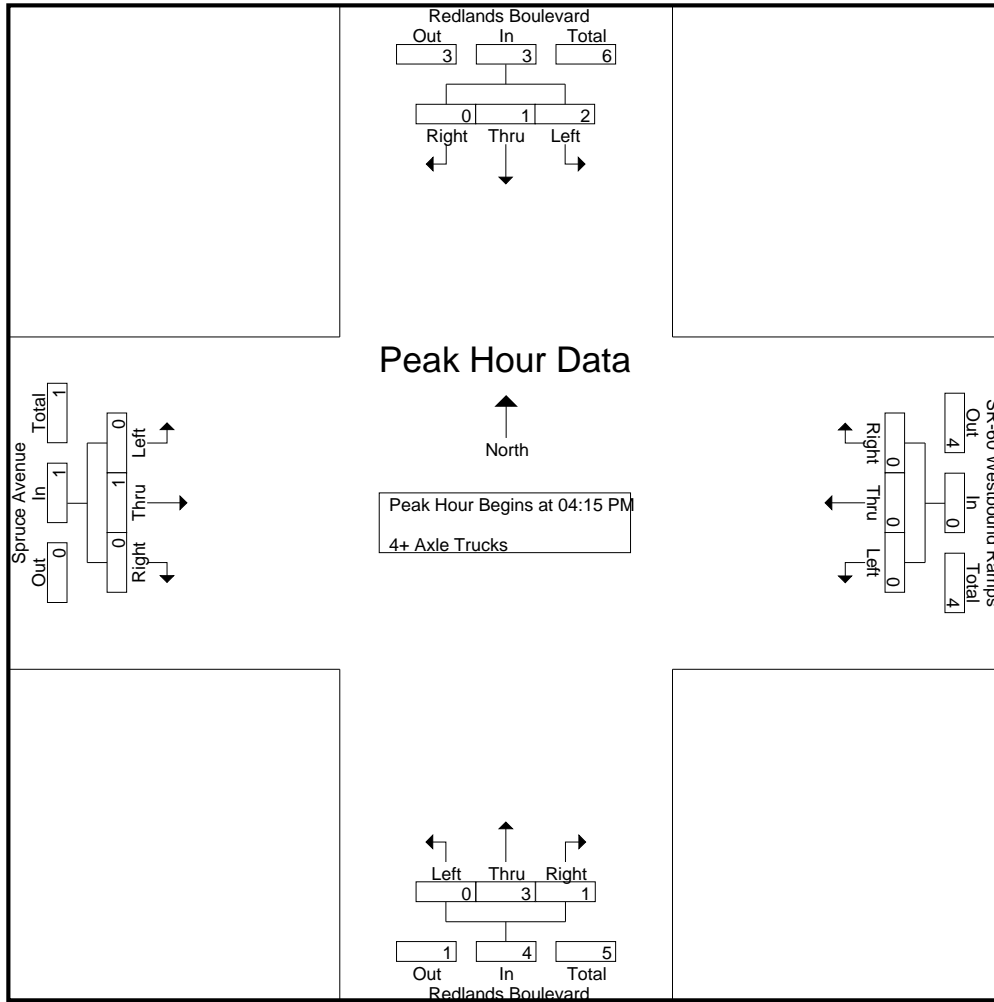
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Spruce Ave/SR-60 Westbound Ramps
 Weather: Clear

File Name : 20_MRV_Red_60W PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
04:15 PM	2	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	1	0	1	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total	3	1	0	4	0	0	0	0	0	4	1	5	0	1	1	2	11
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:45 PM	0	0	0	0	1	0	0	1	1	0	2	2	0	0	0	0	3
Total	0	0	0	0	1	0	0	1	1	0	2	3	0	0	0	0	4
Grand Total	3	1	0	4	1	0	0	1	1	4	3	8	0	1	1	2	15
Apprch %	75	25	0		100	0	0		12.5	50	37.5		0	50	50		
Total %	20	6.7	0	26.7	6.7	0	0	6.7	6.7	26.7	20	53.3	0	6.7	6.7	13.3	

Start Time	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	2	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	1	0	1	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	1	0	3	0	0	0	0	0	3	1	4	0	1	0	1	8
% App. Total	66.7	33.3	0		0	0	0		0	75	25		0	100	0		
PHF	.250	.250	.000	.375	.000	.000	.000	.000	.000	.375	.250	.500	.000	.250	.000	.250	.500



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.	2	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	2	0	2	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	1	0	3	0	0	0	0	0	3	1	4	0	1	0	1
% App. Total	66.7	33.3	0		0	0	0		0	75	25		0	100	0	
PHF	.250	.250	.000	.375	.000	.000	.000	.000	.000	.375	.250	.500	.000	.250	.000	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

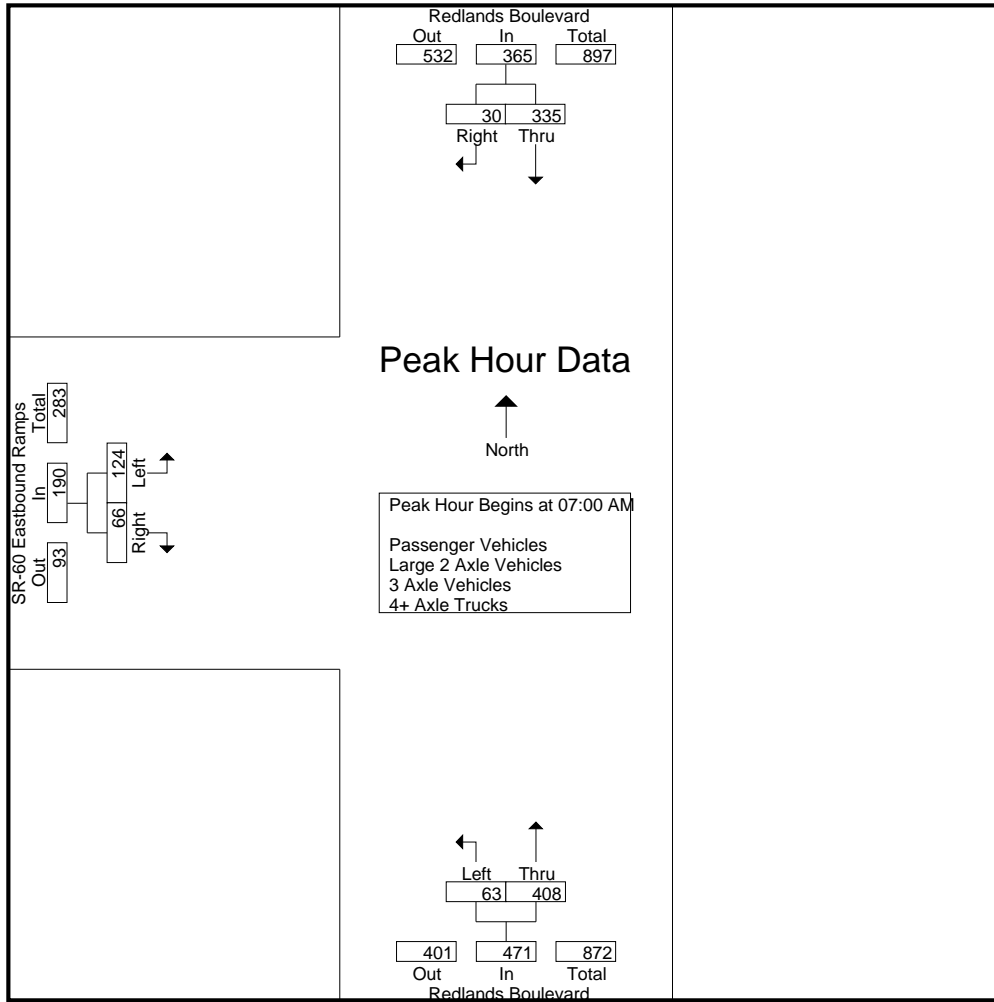
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	92	3	95	19	154	173	39	13	52	320
07:15 AM	82	7	89	13	97	110	28	20	48	247
07:30 AM	90	10	100	18	76	94	28	17	45	239
07:45 AM	71	10	81	13	81	94	29	16	45	220
Total	335	30	365	63	408	471	124	66	190	1026
08:00 AM	67	8	75	9	101	110	32	15	47	232
08:15 AM	46	6	52	15	98	113	45	12	57	222
08:30 AM	46	7	53	17	90	107	40	10	50	210
08:45 AM	35	6	41	8	78	86	59	20	79	206
Total	194	27	221	49	367	416	176	57	233	870
Grand Total	529	57	586	112	775	887	300	123	423	1896
Apprch %	90.3	9.7		12.6	87.4		70.9	29.1		
Total %	27.9	3	30.9	5.9	40.9	46.8	15.8	6.5	22.3	
Passenger Vehicles	518	52	570	106	746	852	286	110	396	1818
% Passenger Vehicles	97.9	91.2	97.3	94.6	96.3	96.1	95.3	89.4	93.6	95.9
Large 2 Axle Vehicles	9	2	11	2	10	12	6	3	9	32
% Large 2 Axle Vehicles	1.7	3.5	1.9	1.8	1.3	1.4	2	2.4	2.1	1.7
3 Axle Vehicles	2	0	2	2	2	4	0	1	1	7
% 3 Axle Vehicles	0.4	0	0.3	1.8	0.3	0.5	0	0.8	0.2	0.4
4+ Axle Trucks	0	3	3	2	17	19	8	9	17	39
% 4+ Axle Trucks	0	5.3	0.5	1.8	2.2	2.1	2.7	7.3	4	2.1

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	92	3	95	19	154	173	39	13	52	320
07:15 AM	82	7	89	13	97	110	28	20	48	247
07:30 AM	90	10	100	18	76	94	28	17	45	239
07:45 AM	71	10	81	13	81	94	29	16	45	220
Total Volume	335	30	365	63	408	471	124	66	190	1026
% App. Total	91.8	8.2		13.4	86.6		65.3	34.7		
PHF	.910	.750	.913	.829	.662	.681	.795	.825	.913	.802

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 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:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	92	3	95	19	154	173	32	15	47
+15 mins.	82	7	89	13	97	110	45	12	57
+30 mins.	90	10	100	18	76	94	40	10	50
+45 mins.	71	10	81	13	81	94	59	20	79
Total Volume	335	30	365	63	408	471	176	57	233
% App. Total	91.8	8.2		13.4	86.6		75.5	24.5	
PHF	.910	.750	.913	.829	.662	.681	.746	.713	.737

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MR_V_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

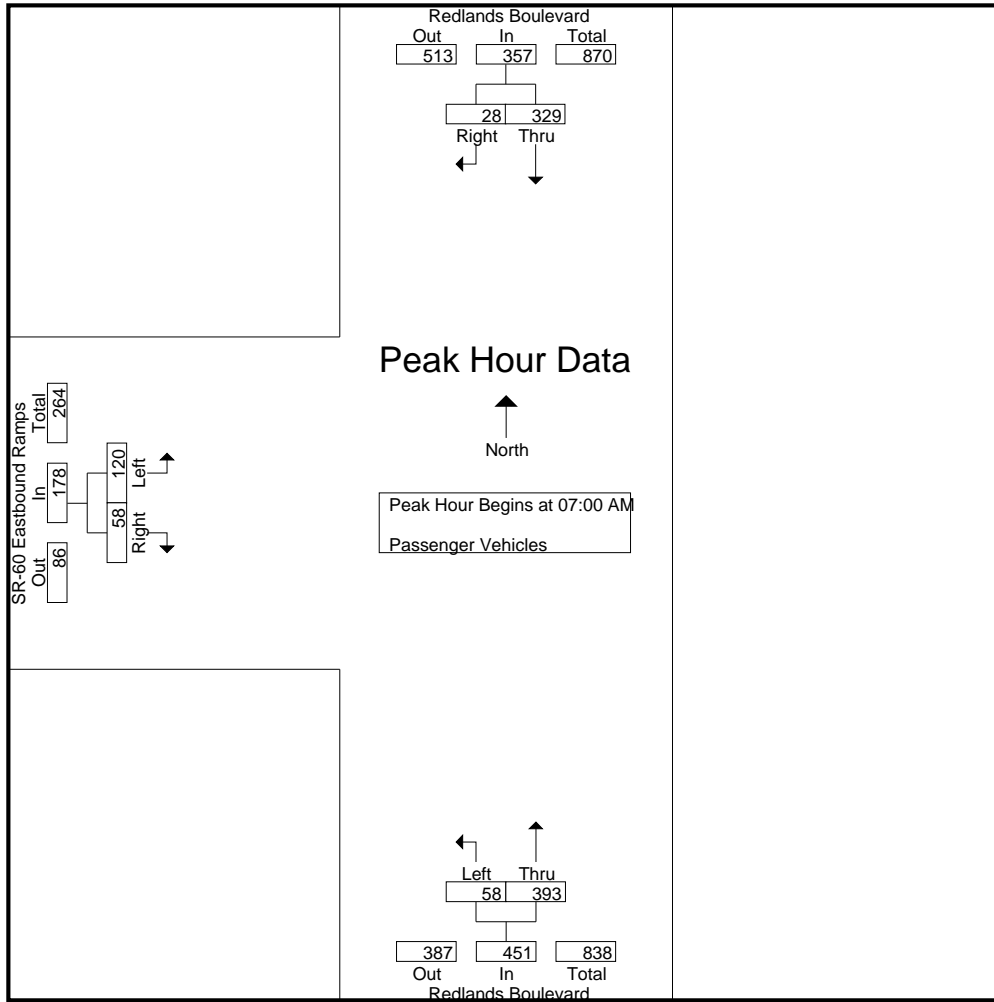
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	89	3	92	18	152	170	37	13	50	312
07:15 AM	82	7	89	11	92	103	28	15	43	235
07:30 AM	87	9	96	17	71	88	26	16	42	226
07:45 AM	71	9	80	12	78	90	29	14	43	213
Total	329	28	357	58	393	451	120	58	178	986
08:00 AM	66	5	71	9	98	107	31	13	44	222
08:15 AM	44	6	50	15	95	110	42	11	53	213
08:30 AM	45	7	52	16	86	102	37	10	47	201
08:45 AM	34	6	40	8	74	82	56	18	74	196
Total	189	24	213	48	353	401	166	52	218	832
Grand Total	518	52	570	106	746	852	286	110	396	1818
Apprch %	90.9	9.1		12.4	87.6		72.2	27.8		
Total %	28.5	2.9	31.4	5.8	41	46.9	15.7	6.1	21.8	

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	89	3	92	18	152	170	37	13	50	312
07:15 AM	82	7	89	11	92	103	28	15	43	235
07:30 AM	87	9	96	17	71	88	26	16	42	226
07:45 AM	71	9	80	12	78	90	29	14	43	213
Total Volume	329	28	357	58	393	451	120	58	178	986
% App. Total	92.2	7.8		12.9	87.1		67.4	32.6		
PHF	.924	.778	.930	.806	.646	.663	.811	.906	.890	.790

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	89	3	92	18	152	170	37	13	50
+15 mins.	82	7	89	11	92	103	28	15	43
+30 mins.	87	9	96	17	71	88	26	16	42
+45 mins.	71	9	80	12	78	90	29	14	43
Total Volume	329	28	357	58	393	451	120	58	178
% App. Total	92.2	7.8		12.9	87.1		67.4	32.6	
PHF	.924	.778	.930	.806	.646	.663	.811	.906	.890

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	3	0	3	1	1	2	0	0	0	5
07:15 AM	0	0	0	0	1	1	0	0	0	1
07:30 AM	2	0	2	1	3	4	1	0	1	7
07:45 AM	0	0	0	0	1	1	0	1	1	2
Total	5	0	5	2	6	8	1	1	2	15
08:00 AM	1	2	3	0	1	1	1	1	2	6
08:15 AM	1	0	1	0	1	1	2	1	3	5
08:30 AM	1	0	1	0	1	1	0	0	0	2
08:45 AM	1	0	1	0	1	1	2	0	2	4
Total	4	2	6	0	4	4	5	2	7	17
Grand Total	9	2	11	2	10	12	6	3	9	32
Apprch %	81.8	18.2		16.7	83.3		66.7	33.3		
Total %	28.1	6.2	34.4	6.2	31.2	37.5	18.8	9.4	28.1	

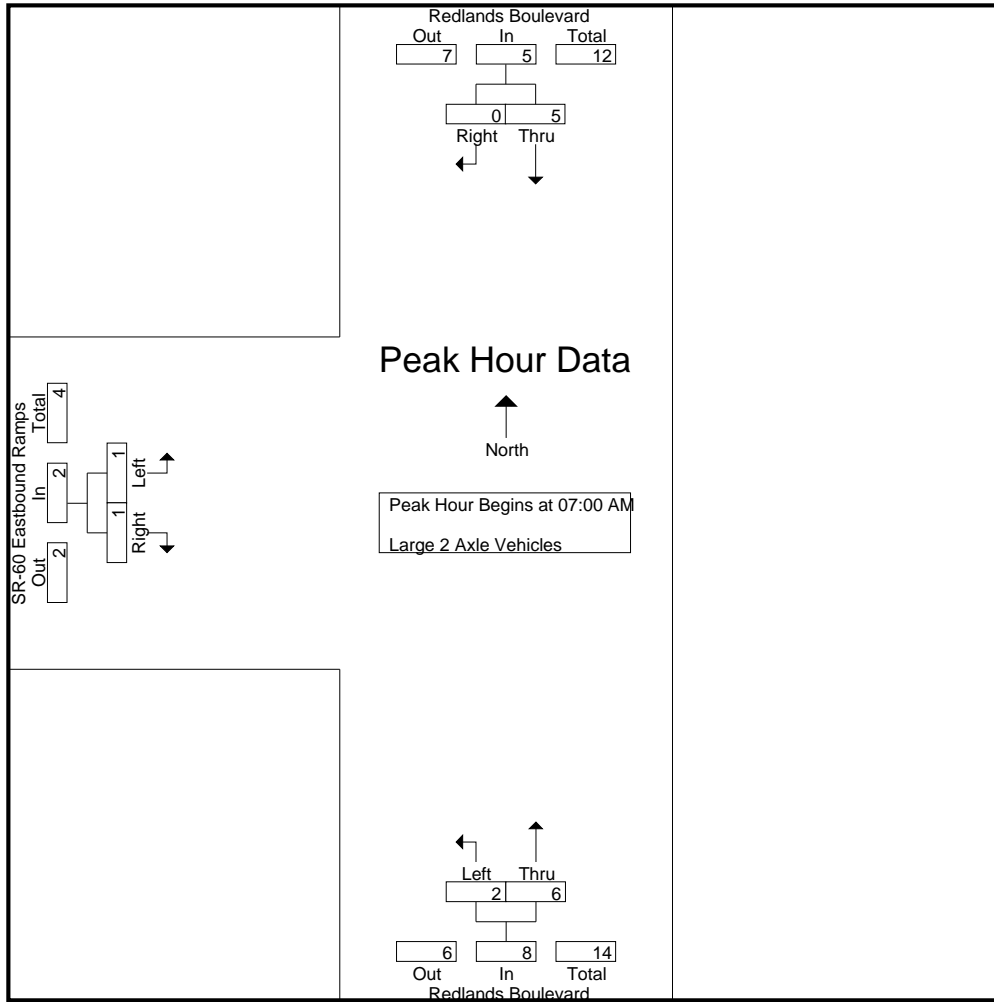
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	3	0	3	1	1	2	0	0	0	5
07:15 AM	0	0	0	0	1	1	0	0	0	1
07:30 AM	2	0	2	1	3	4	1	0	1	7
07:45 AM	0	0	0	0	1	1	0	1	1	2
Total Volume	5	0	5	2	6	8	1	1	2	15
% App. Total	100	0		25	75		50	50		
PHF	.417	.000	.417	.500	.500	.500	.250	.250	.500	.536

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	3	0	3	1	1	2	0	0	0
+15 mins.	0	0	0	0	1	1	0	0	0
+30 mins.	2	0	2	1	3	4	1	0	1
+45 mins.	0	0	0	0	1	1	0	1	1
Total Volume	5	0	5	2	6	8	1	1	2
% App. Total	100	0		25	75		50	50	
PHF	.417	.000	.417	.500	.500	.500	.250	.250	.500

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

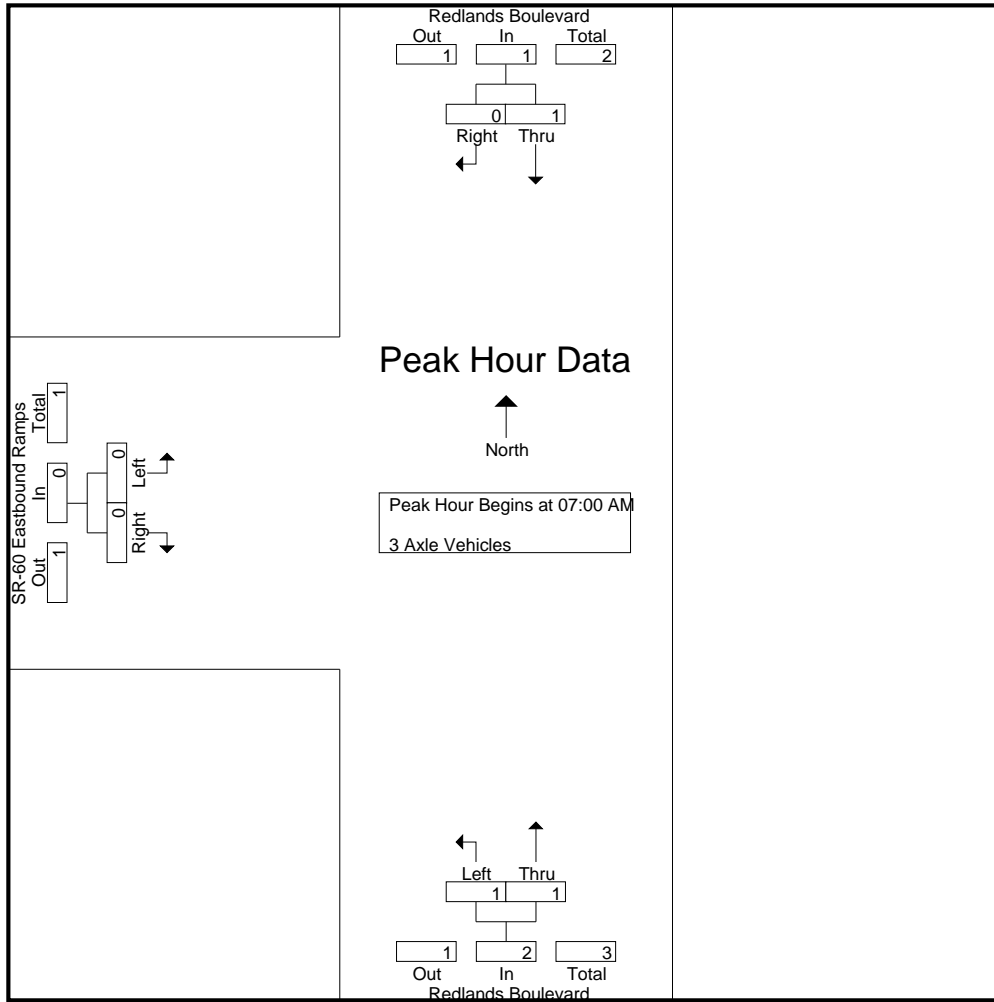
Groups Printed- 3 Axle Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	1	1	0	0	0	2
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total	1	0	1	1	1	2	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	1	1	1
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	0	0	0	1	0	1	0	0	0	1
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	1	0	1	1	1	2	0	1	1	4
Grand Total	2	0	2	2	2	4	0	1	1	7
Apprch %	100	0		50	50		0	100		
Total %	28.6	0	28.6	28.6	28.6	57.1	0	14.3	14.3	

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	1	1	0	0	0	2
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total Volume	1	0	1	1	1	2	0	0	0	3
% App. Total	100	0		50	50		0	0		
PHF	.250	.000	.250	.250	.250	.500	.000	.000	.000	.375

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	1	0	1	1	0	0	0
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	1	0	1	1	1	2	0	0	0
% App. Total	100	0		50	50		0	0	
PHF	.250	.000	.250	.250	.250	.500	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

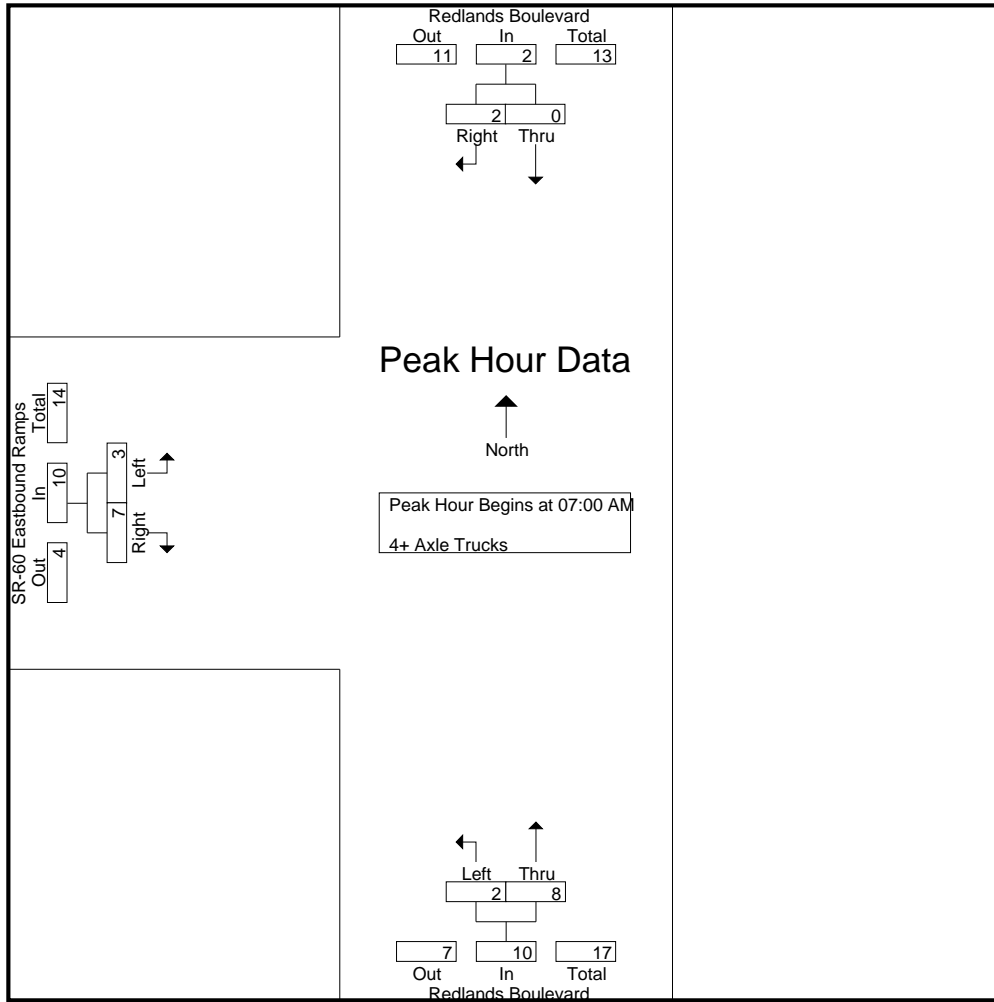
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	1	1	2	0	2	3
07:15 AM	0	0	0	2	4	6	0	5	5	11
07:30 AM	0	1	1	0	1	1	1	1	2	4
07:45 AM	0	1	1	0	2	2	0	1	1	4
Total	0	2	2	2	8	10	3	7	10	22
08:00 AM	0	1	1	0	2	2	0	0	0	3
08:15 AM	0	0	0	0	2	2	1	0	1	3
08:30 AM	0	0	0	0	3	3	3	0	3	6
08:45 AM	0	0	0	0	2	2	1	2	3	5
Total	0	1	1	0	9	9	5	2	7	17
Grand Total	0	3	3	2	17	19	8	9	17	39
Apprch %	0	100		10.5	89.5		47.1	52.9		
Total %	0	7.7	7.7	5.1	43.6	48.7	20.5	23.1	43.6	

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	1	1	2	0	2	3
07:15 AM	0	0	0	2	4	6	0	5	5	11
07:30 AM	0	1	1	0	1	1	1	1	2	4
07:45 AM	0	1	1	0	2	2	0	1	1	4
Total Volume	0	2	2	2	8	10	3	7	10	22
% App. Total	0	100		20	80		30	70		
PHF	.000	.500	.500	.250	.500	.417	.375	.350	.500	.500

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	1	1	0	0	2
+15 mins.	0	0	0	2	4	6	0	5	5
+30 mins.	0	1	1	0	1	1	1	1	2
+45 mins.	0	1	1	0	2	2	0	1	1
Total Volume	0	2	2	2	8	10	3	7	10
% App. Total	0	100		20	80		30	70	
PHF	.000	.500	.500	.250	.500	.417	.375	.350	.500

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MR_V_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

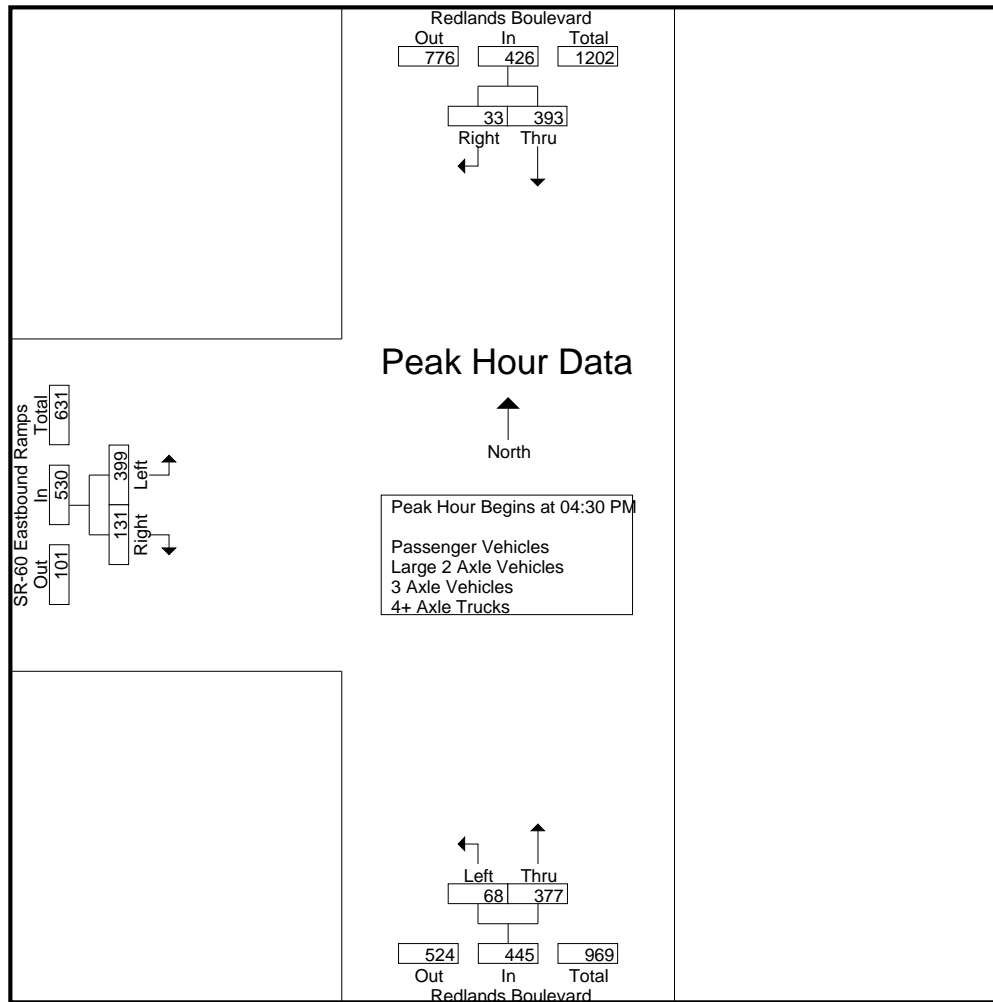
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	98	13	111	8	89	97	90	26	116	324
04:15 PM	97	13	110	13	82	95	102	38	140	345
04:30 PM	101	10	111	14	100	114	107	29	136	361
04:45 PM	100	9	109	18	93	111	108	37	145	365
Total	396	45	441	53	364	417	407	130	537	1395
05:00 PM	101	8	109	15	78	93	82	28	110	312
05:15 PM	91	6	97	21	106	127	102	37	139	363
05:30 PM	99	8	107	10	85	95	83	36	119	321
05:45 PM	107	5	112	9	73	82	90	36	126	320
Total	398	27	425	55	342	397	357	137	494	1316
Grand Total	794	72	866	108	706	814	764	267	1031	2711
Apprch %	91.7	8.3		13.3	86.7		74.1	25.9		
Total %	29.3	2.7	31.9	4	26	30	28.2	9.8	38	
Passenger Vehicles	776	69	845	106	697	803	745	255	1000	2648
% Passenger Vehicles	97.7	95.8	97.6	98.1	98.7	98.6	97.5	95.5	97	97.7
Large 2 Axle Vehicles	15	0	15	0	6	6	11	8	19	40
% Large 2 Axle Vehicles	1.9	0	1.7	0	0.8	0.7	1.4	3	1.8	1.5
3 Axle Vehicles	3	0	3	1	0	1	2	0	2	6
% 3 Axle Vehicles	0.4	0	0.3	0.9	0	0.1	0.3	0	0.2	0.2
4+ Axle Trucks	0	3	3	1	3	4	6	4	10	17
% 4+ Axle Trucks	0	4.2	0.3	0.9	0.4	0.5	0.8	1.5	1	0.6

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	101	10	111	14	100	114	107	29	136	361
04:45 PM	100	9	109	18	93	111	108	37	145	365
05:00 PM	101	8	109	15	78	93	82	28	110	312
05:15 PM	91	6	97	21	106	127	102	37	139	363
Total Volume	393	33	426	68	377	445	399	131	530	1401
% App. Total	92.3	7.7		15.3	84.7		75.3	24.7		
PHF	.973	.825	.959	.810	.889	.876	.924	.885	.914	.960

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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:

	04:00 PM			04:30 PM			04:00 PM		
+0 mins.	98	13	111	14	100	114	90	26	116
+15 mins.	97	13	110	18	93	111	102	38	140
+30 mins.	101	10	111	15	78	93	107	29	136
+45 mins.	100	9	109	21	106	127	108	37	145
Total Volume	396	45	441	68	377	445	407	130	537
% App. Total	89.8	10.2		15.3	84.7		75.8	24.2	
PHF	.980	.865	.993	.810	.889	.876	.942	.855	.926

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	95	12	107	8	88	96	87	24	111	314
04:15 PM	96	13	109	12	81	93	99	36	135	337
04:30 PM	101	9	110	14	100	114	105	27	132	356
04:45 PM	96	9	105	17	92	109	104	37	141	355
Total	388	43	431	51	361	412	395	124	519	1362
05:00 PM	101	8	109	15	76	91	80	27	107	307
05:15 PM	88	6	94	21	104	125	102	36	138	357
05:30 PM	97	8	105	10	85	95	79	32	111	311
05:45 PM	102	4	106	9	71	80	89	36	125	311
Total	388	26	414	55	336	391	350	131	481	1286
Grand Total	776	69	845	106	697	803	745	255	1000	2648
Apprch %	91.8	8.2		13.2	86.8		74.5	25.5		
Total %	29.3	2.6	31.9	4	26.3	30.3	28.1	9.6	37.8	

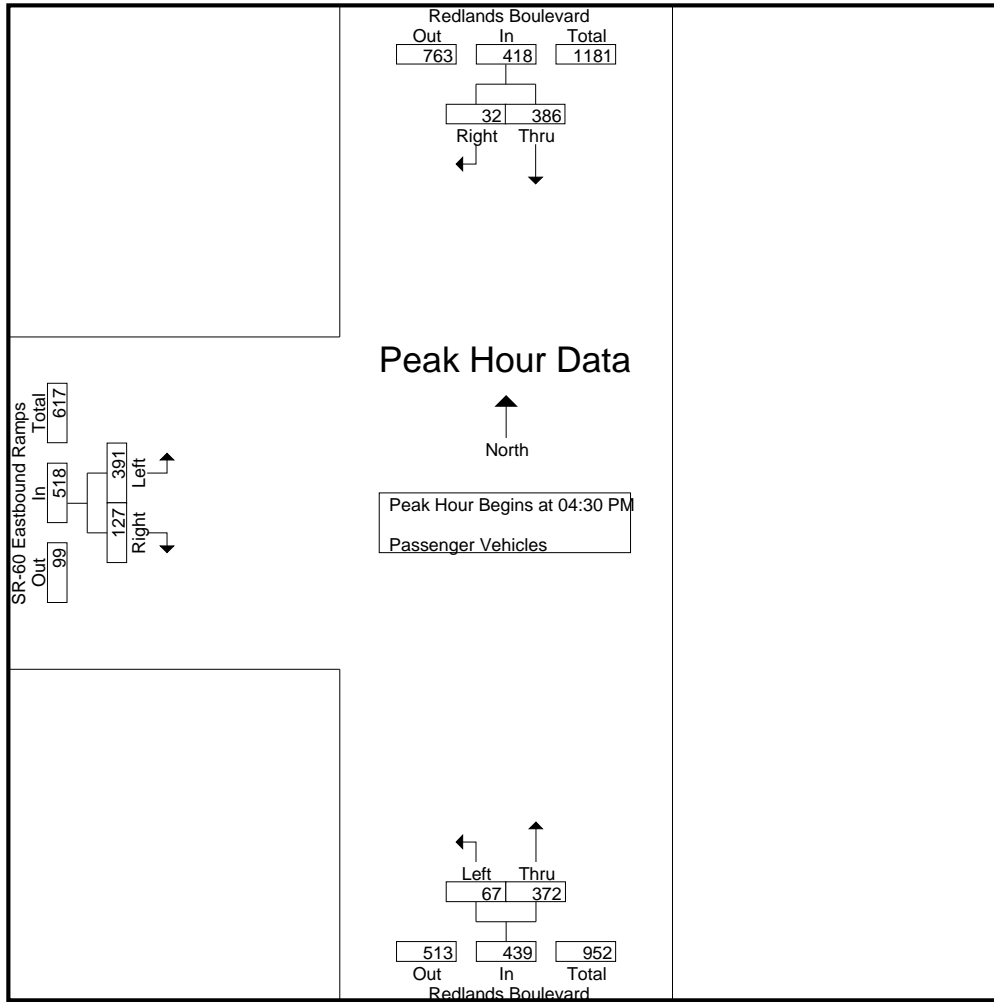
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	101	9	110	14	100	114	105	27	132	356
04:45 PM	96	9	105	17	92	109	104	37	141	355
05:00 PM	101	8	109	15	76	91	80	27	107	307
05:15 PM	88	6	94	21	104	125	102	36	138	357
Total Volume	386	32	418	67	372	439	391	127	518	1375
% App. Total	92.3	7.7		15.3	84.7		75.5	24.5		
PHF	.955	.889	.950	.798	.894	.878	.931	.858	.918	.963

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	101	9	110	14	100	114	105	27	132
+15 mins.	96	9	105	17	92	109	104	37	141
+30 mins.	101	8	109	15	76	91	80	27	107
+45 mins.	88	6	94	21	104	125	102	36	138
Total Volume	386	32	418	67	372	439	391	127	518
% App. Total	92.3	7.7		15.3	84.7		75.5	24.5	
PHF	.955	.889	.950	.798	.894	.878	.931	.858	.918

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	3	0	3	0	1	1	1	2	3	7
04:15 PM	0	0	0	0	1	1	2	1	3	4
04:30 PM	0	0	0	0	0	0	1	1	2	2
04:45 PM	3	0	3	0	0	0	3	0	3	6
Total	6	0	6	0	2	2	7	4	11	19
05:00 PM	0	0	0	0	2	2	2	1	3	5
05:15 PM	2	0	2	0	2	2	0	0	0	4
05:30 PM	2	0	2	0	0	0	1	3	4	6
05:45 PM	5	0	5	0	0	0	1	0	1	6
Total	9	0	9	0	4	4	4	4	8	21
Grand Total	15	0	15	0	6	6	11	8	19	40
Apprch %	100	0		0	100		57.9	42.1		
Total %	37.5	0	37.5	0	15	15	27.5	20	47.5	

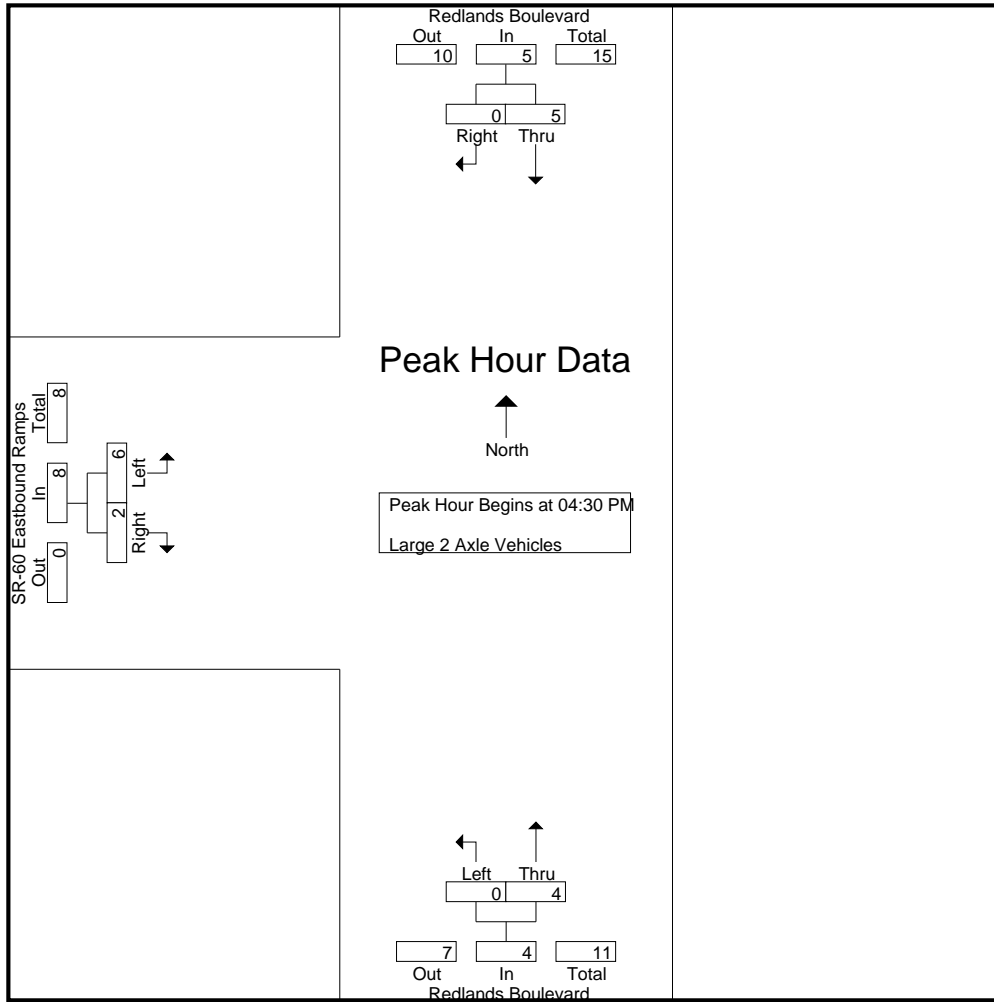
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	0	0	0	0	0	0	1	1	2	2
04:45 PM	3	0	3	0	0	0	3	0	3	6
05:00 PM	0	0	0	0	2	2	2	1	3	5
05:15 PM	2	0	2	0	2	2	0	0	0	4
Total Volume	5	0	5	0	4	4	6	2	8	17
% App. Total	100	0		0	100		75	25		
PHF	.417	.000	.417	.000	.500	.500	.500	.500	.667	.708

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	0	0	0	1	1	2
+15 mins.	3	0	3	0	0	0	3	0	3
+30 mins.	0	0	0	0	2	2	2	1	3
+45 mins.	2	0	2	0	2	2	0	0	0
Total Volume	5	0	5	0	4	4	6	2	8
% App. Total	100	0		0	100		75	25	
PHF	.417	.000	.417	.000	.500	.500	.500	.500	.667

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MR_V_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	1	1	0	1	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	1	0	0	0	1	0	1	2
Total	2	0	2	1	0	1	1	0	1	4
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	1	0	1	2
Grand Total	3	0	3	1	0	1	2	0	2	6
Apprch %	100	0		100	0		100	0		
Total %	50	0	50	16.7	0	16.7	33.3	0	33.3	

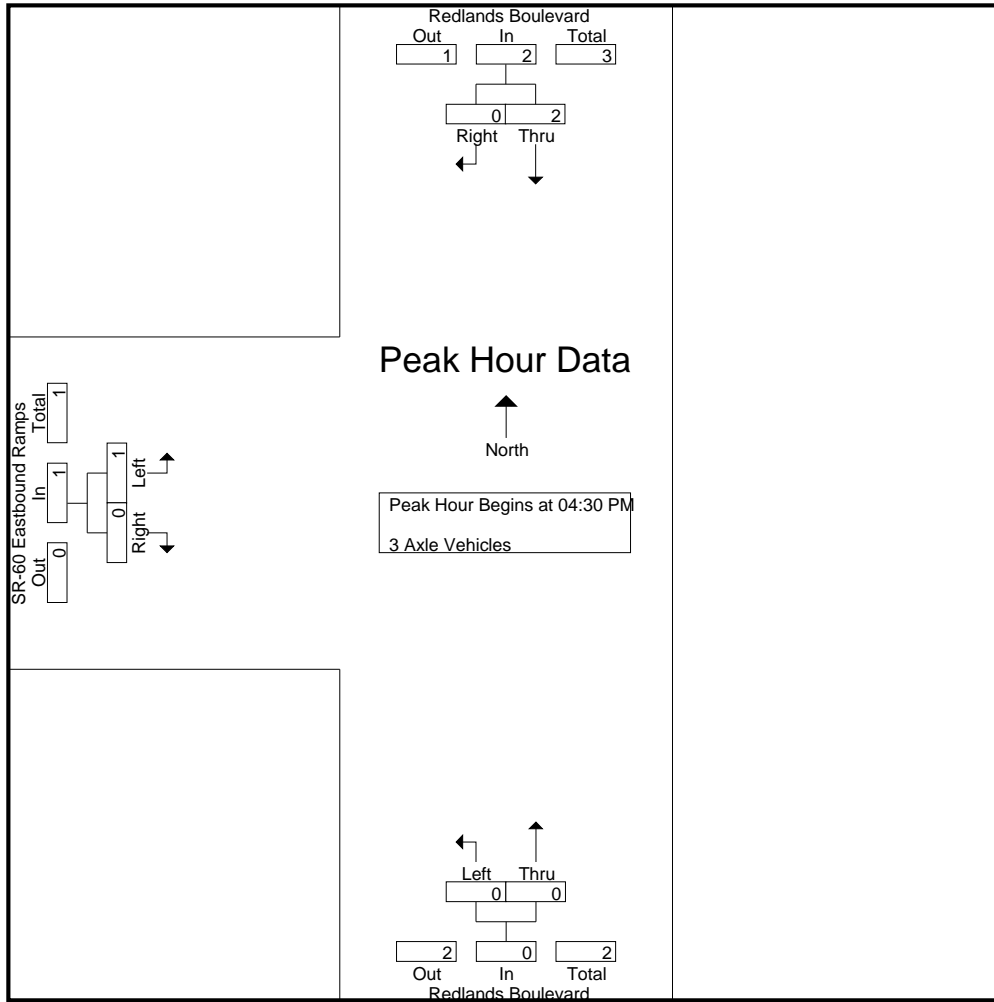
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	1	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	1	0	0	0	0	0	0	1
Total Volume	2	0	2	0	0	0	1	0	1	3
% App. Total	100	0		0	0		100	0		
PHF	.500	.000	.500	.000	.000	.000	.250	.000	.250	.375

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	0	0	0	0	0	0
Total Volume	2	0	2	0	0	0	1	0	1
% App. Total	100	0		0	0		100	0	
PHF	.500	.000	.500	.000	.000	.000	.250	.000	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	0	1	1	0	0	0	2	0	2	3
04:15 PM	0	0	0	0	0	0	1	1	2	2
04:30 PM	0	1	1	0	0	0	1	1	2	3
04:45 PM	0	0	0	1	1	2	0	0	0	2
Total	0	2	2	1	1	2	4	2	6	10
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	0	0	0	2	1	3	3
05:45 PM	0	1	1	0	2	2	0	0	0	3
Total	0	1	1	0	2	2	2	2	4	7
Grand Total	0	3	3	1	3	4	6	4	10	17
Apprch %	0	100		25	75		60	40		
Total %	0	17.6	17.6	5.9	17.6	23.5	35.3	23.5	58.8	

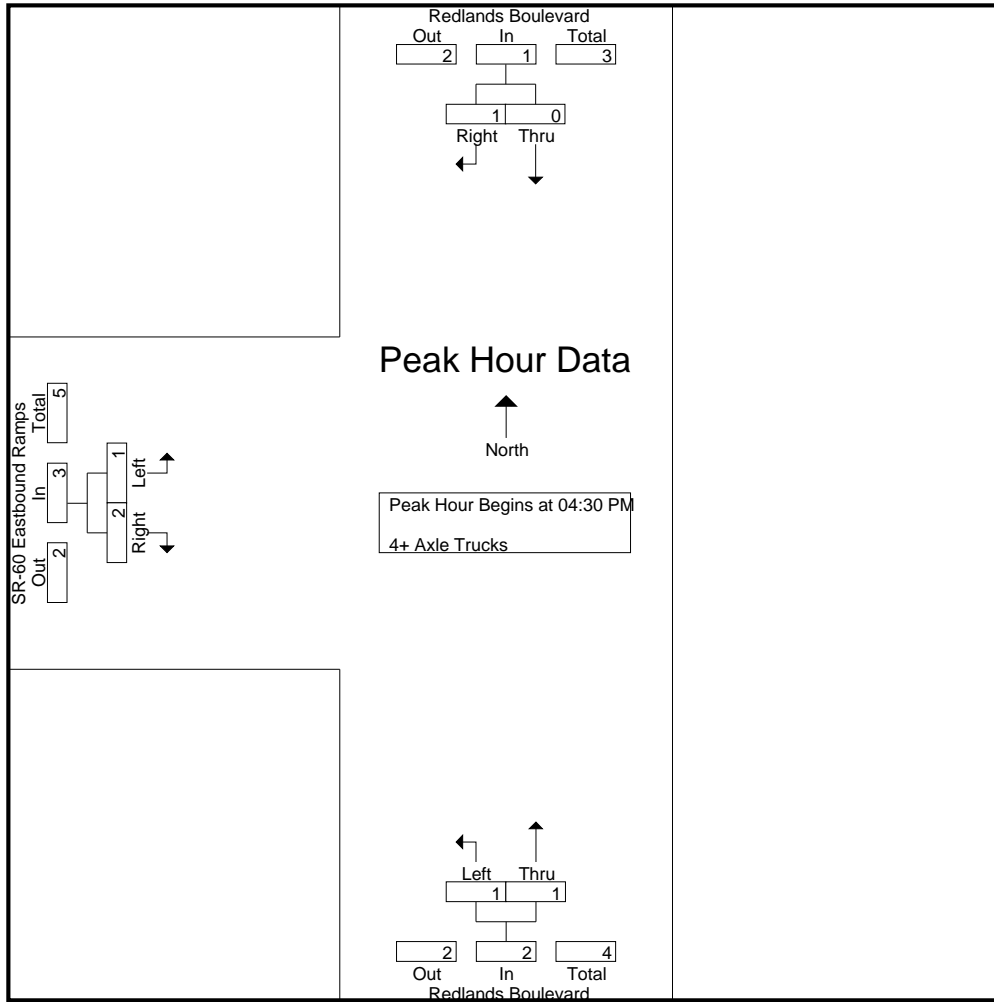
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			SR-60 Eastbound Ramps Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	0	1	1	0	0	0	1	1	2	3
04:45 PM	0	0	0	1	1	2	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	1	1	1	1	2	1	2	3	6
% App. Total	0	100		50	50		33.3	66.7		
PHF	.000	.250	.250	.250	.250	.250	.250	.500	.375	.500

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: SR-60 Eastbound Ramps
 Weather: Clear

File Name : 21_MRV_Red_60E PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	0	1	1	0	0	0	1	1	2
+15 mins.	0	0	0	1	1	2	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	1	1	1	1	2	1	2	3
% App. Total	0	100		50	50		33.3	66.7	
PHF	.000	.250	.250	.250	.250	.250	.250	.500	.375

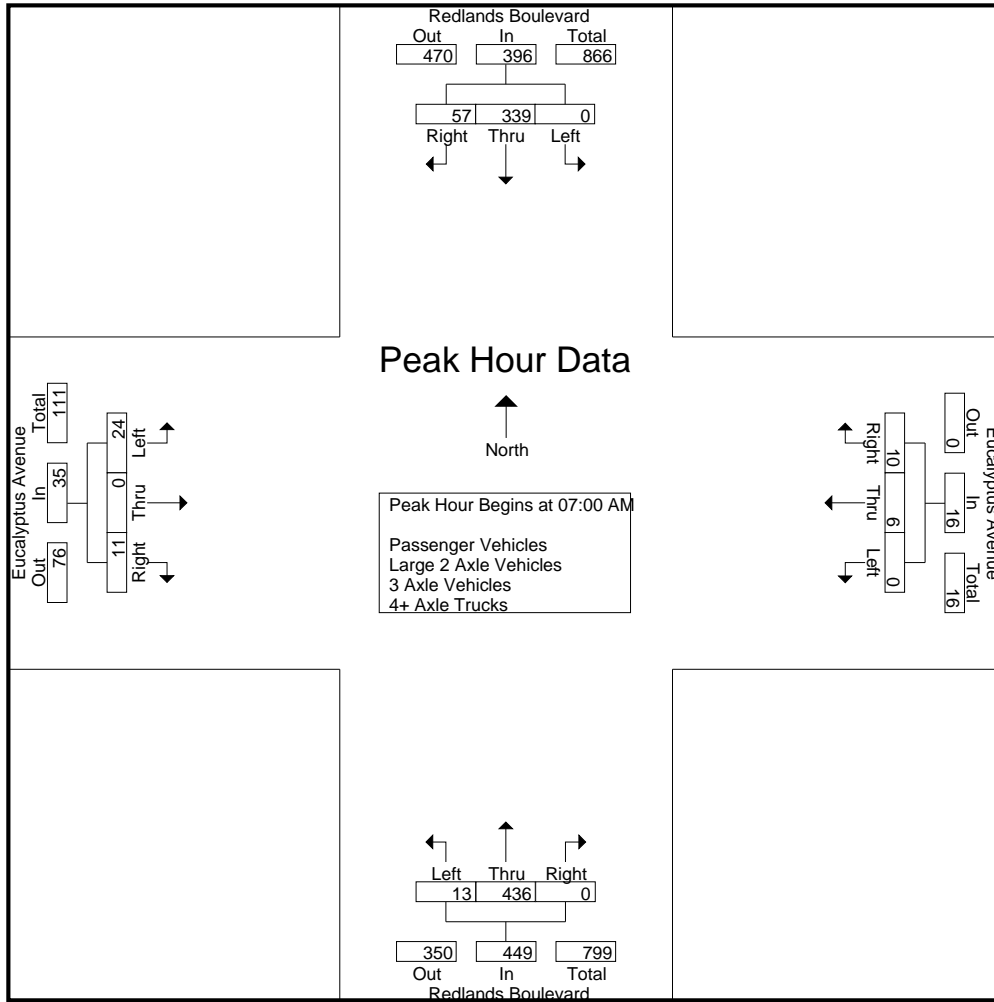
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	89	14	103	0	3	2	5	2	168	0	170	4	0	2	6	284
07:15 AM	0	80	15	95	0	1	2	3	2	96	0	98	11	0	1	12	208
07:30 AM	0	97	16	113	0	2	3	5	3	87	0	90	3	0	3	6	214
07:45 AM	0	73	12	85	0	0	3	3	6	85	0	91	6	0	5	11	190
Total	0	339	57	396	0	6	10	16	13	436	0	449	24	0	11	35	896
08:00 AM	0	71	17	88	1	4	11	16	6	98	0	104	6	0	3	9	217
08:15 AM	0	48	8	56	3	3	7	13	3	102	0	105	8	1	2	11	185
08:30 AM	0	50	9	59	0	2	17	19	0	83	0	83	6	0	2	8	169
08:45 AM	2	48	7	57	1	3	9	13	3	75	0	78	3	0	0	3	151
Total	2	217	41	260	5	12	44	61	12	358	0	370	23	1	7	31	722
Grand Total	2	556	98	656	5	18	54	77	25	794	0	819	47	1	18	66	1618
Apprch %	0.3	84.8	14.9		6.5	23.4	70.1		3.1	96.9	0		71.2	1.5	27.3		
Total %	0.1	34.4	6.1	40.5	0.3	1.1	3.3	4.8	1.5	49.1	0	50.6	2.9	0.1	1.1	4.1	
Passenger Vehicles	2	542	87	631	5	18	54	77	25	778	0	803	27	1	17	45	1556
% Passenger Vehicles	100	97.5	88.8	96.2	100	100	100	100	100	98	0	98	57.4	100	94.4	68.2	96.2
Large 2 Axle Vehicles	0	13	1	14	0	0	0	0	0	11	0	11	2	0	1	3	28
% Large 2 Axle Vehicles	0	2.3	1	2.1	0	0	0	0	0	1.4	0	1.3	4.3	0	5.6	4.5	1.7
3 Axle Vehicles	0	0	2	2	0	0	0	0	0	2	0	2	2	0	0	2	6
% 3 Axle Vehicles	0	0	2	0.3	0	0	0	0	0	0.3	0	0.2	4.3	0	0	3	0.4
4+ Axle Trucks	0	1	8	9	0	0	0	0	0	3	0	3	16	0	0	16	28
% 4+ Axle Trucks	0	0.2	8.2	1.4	0	0	0	0	0	0.4	0	0.4	34	0	0	24.2	1.7

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	89	14	103	0	3	2	5	2	168	0	170	4	0	2	6	284
07:15 AM	0	80	15	95	0	1	2	3	2	96	0	98	11	0	1	12	208
07:30 AM	0	97	16	113	0	2	3	5	3	87	0	90	3	0	3	6	214
07:45 AM	0	73	12	85	0	0	3	3	6	85	0	91	6	0	5	11	190
Total Volume	0	339	57	396	0	6	10	16	13	436	0	449	24	0	11	35	896
% App. Total	0	85.6	14.4		0	37.5	62.5		2.9	97.1	0		68.6	0	31.4		
PHF	.000	.874	.891	.876	.000	.500	.833	.800	.542	.649	.000	.660	.545	.000	.550	.729	.789



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:00 AM				07:45 AM			
+0 mins.	0	89	14	103	1	4	11	16	2	168	0	170	6	0	5	11
+15 mins.	0	80	15	95	3	3	7	13	2	96	0	98	6	0	3	9
+30 mins.	0	97	16	113	0	2	17	19	3	87	0	90	8	1	2	11
+45 mins.	0	73	12	85	1	3	9	13	6	85	0	91	6	0	2	8
Total Volume	0	339	57	396	5	12	44	61	13	436	0	449	26	1	12	39
% App. Total	0	85.6	14.4		8.2	19.7	72.1		2.9	97.1	0		66.7	2.6	30.8	
PHF	.000	.874	.891	.876	.417	.750	.647	.803	.542	.649	.000	.660	.813	.250	.600	.886

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

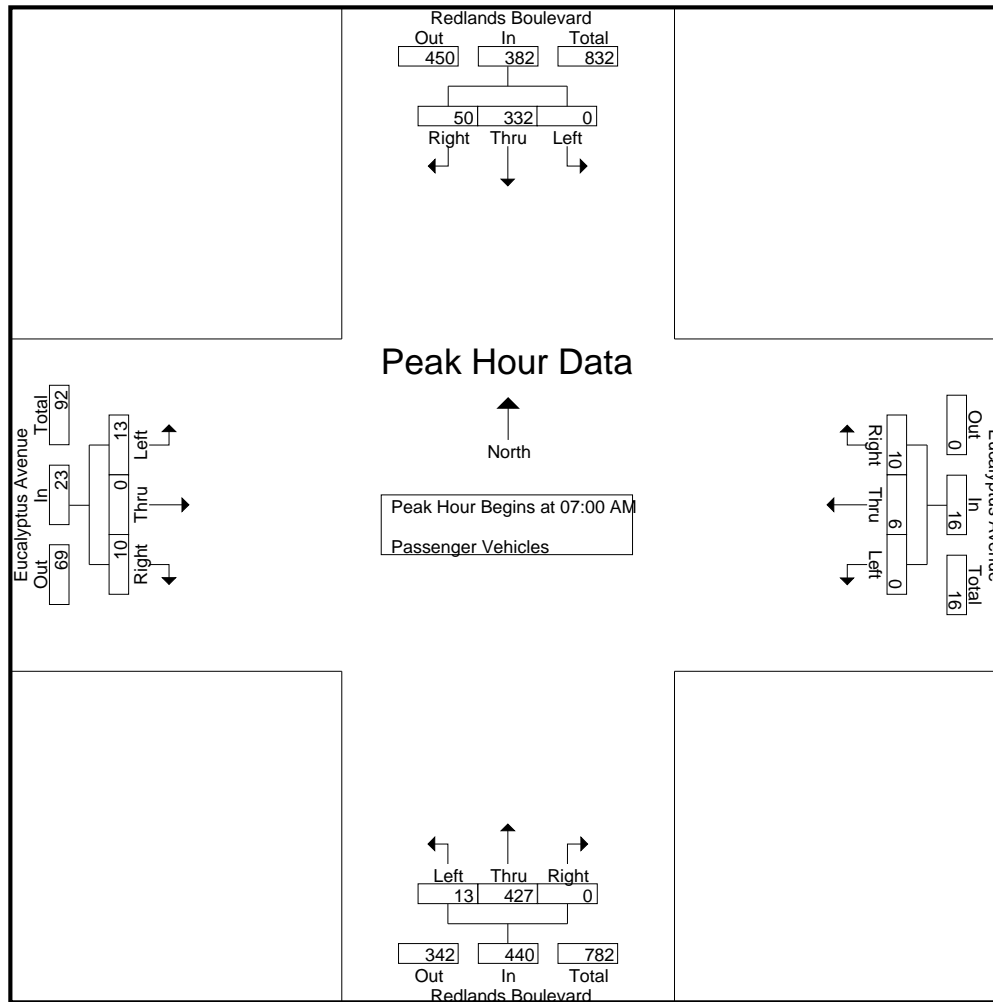
Groups Printed- Passenger Vehicles

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	85	14	99	0	3	2	5	2	166	0	168	3	0	1	4	276
07:15 AM	0	79	12	91	0	1	2	3	2	95	0	97	5	0	1	6	197
07:30 AM	0	95	13	108	0	2	3	5	3	82	0	85	3	0	3	6	204
07:45 AM	0	73	11	84	0	0	3	3	6	84	0	90	2	0	5	7	184
Total	0	332	50	382	0	6	10	16	13	427	0	440	13	0	10	23	861
08:00 AM	0	70	16	86	1	4	11	16	6	97	0	103	4	0	3	7	212
08:15 AM	0	46	7	53	3	3	7	13	3	100	0	103	6	1	2	9	178
08:30 AM	0	47	9	56	0	2	17	19	0	81	0	81	3	0	2	5	161
08:45 AM	2	47	5	54	1	3	9	13	3	73	0	76	1	0	0	1	144
Total	2	210	37	249	5	12	44	61	12	351	0	363	14	1	7	22	695
Grand Total	2	542	87	631	5	18	54	77	25	778	0	803	27	1	17	45	1556
Apprch %	0.3	85.9	13.8		6.5	23.4	70.1		3.1	96.9	0		60	2.2	37.8		
Total %	0.1	34.8	5.6	40.6	0.3	1.2	3.5	4.9	1.6	50	0	51.6	1.7	0.1	1.1	2.9	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	85	14	99	0	3	2	5	2	166	0	168	3	0	1	4	276
07:15 AM	0	79	12	91	0	1	2	3	2	95	0	97	5	0	1	6	197
07:30 AM	0	95	13	108	0	2	3	5	3	82	0	85	3	0	3	6	204
07:45 AM	0	73	11	84	0	0	3	3	6	84	0	90	2	0	5	7	184
Total Volume	0	332	50	382	0	6	10	16	13	427	0	440	13	0	10	23	861
% App. Total	0	86.9	13.1		0	37.5	62.5		3	97	0		56.5	0	43.5		
PHF	.000	.874	.893	.884	.000	.500	.833	.800	.542	.643	.000	.655	.650	.000	.500	.821	.780

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	85	14	99	0	3	2	5	2	166	0	168	3	0	1	4
+15 mins.	0	79	12	91	0	1	2	3	2	95	0	97	5	0	1	6
+30 mins.	0	95	13	108	0	2	3	5	3	82	0	85	3	0	3	6
+45 mins.	0	73	11	84	0	0	3	3	6	84	0	90	2	0	5	7
Total Volume	0	332	50	382	0	6	10	16	13	427	0	440	13	0	10	23
% App. Total	0	86.9	13.1		0	37.5	62.5		3	97	0		56.5	0	43.5	
PHF	.000	.874	.893	.884	.000	.500	.833	.800	.542	.643	.000	.655	.650	.000	.500	.821

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MR_V_Red_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

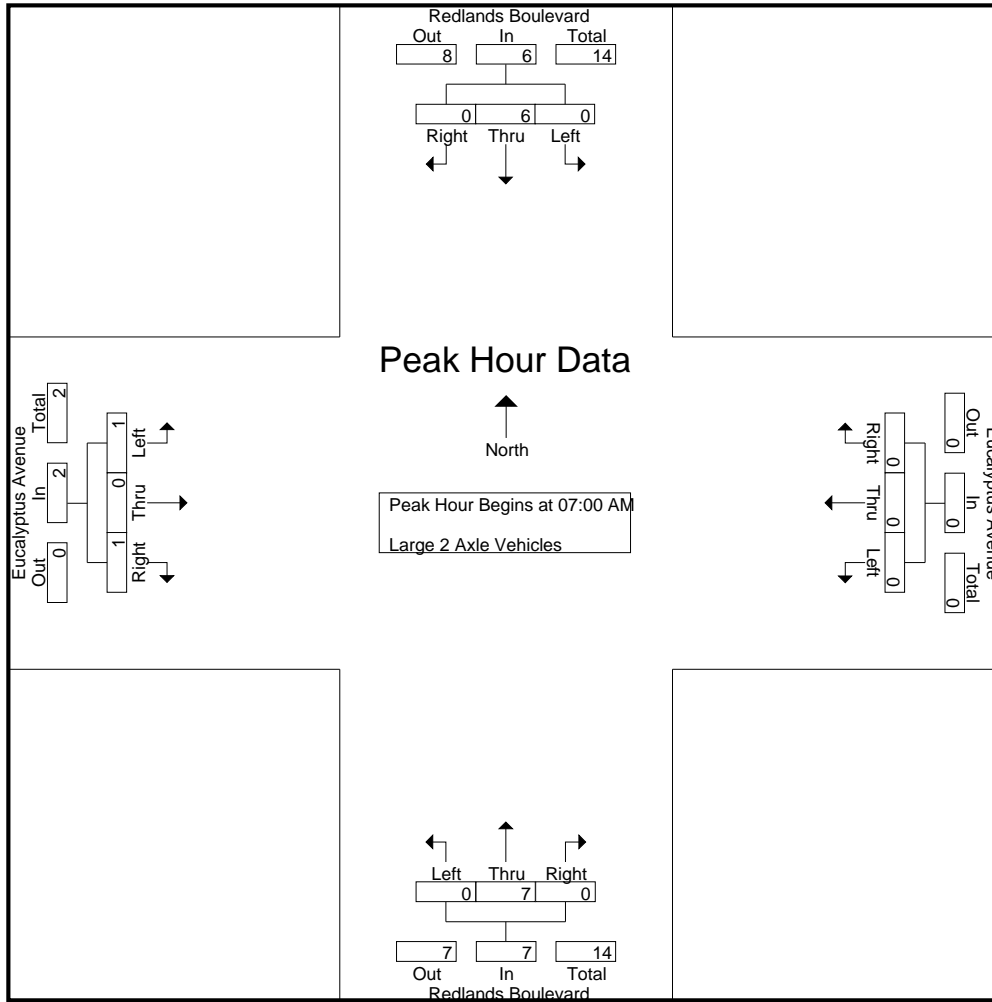
Groups Printed- Large 2 Axle Vehicles

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	4	0	4	0	0	0	0	0	2	0	2	0	0	1	1	7
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0	6
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	6	0	6	0	0	0	0	0	7	0	7	1	0	1	2	15
08:00 AM	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	3
08:15 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
08:30 AM	0	3	0	3	0	0	0	0	0	0	0	0	1	0	0	1	4
08:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	7	1	8	0	0	0	0	0	4	0	4	1	0	0	1	13
Grand Total	0	13	1	14	0	0	0	0	0	11	0	11	2	0	1	3	28
Apprch %	0	92.9	7.1		0	0	0		0	100	0		66.7	0	33.3		
Total %	0	46.4	3.6	50	0	0	0	0	0	39.3	0	39.3	7.1	0	3.6	10.7	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	4	0	4	0	0	0	0	0	2	0	2	0	0	1	1	7
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0	6
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	0	6	0	6	0	0	0	0	0	7	0	7	1	0	1	2	15
% App. Total	0	100	0		0	0	0		0	100	0		50	0	50		
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.438	.000	.438	.250	.000	.250	.500	.536

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	4	0	4	0	0	0	0	0	2	0	2	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1
Total Volume	0	6	0	6	0	0	0	0	0	7	0	7	1	0	1	2
% App. Total	0	100	0		0	0	0		0	100	0		50	0	50	
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.438	.000	.438	.250	.000	.250	.500

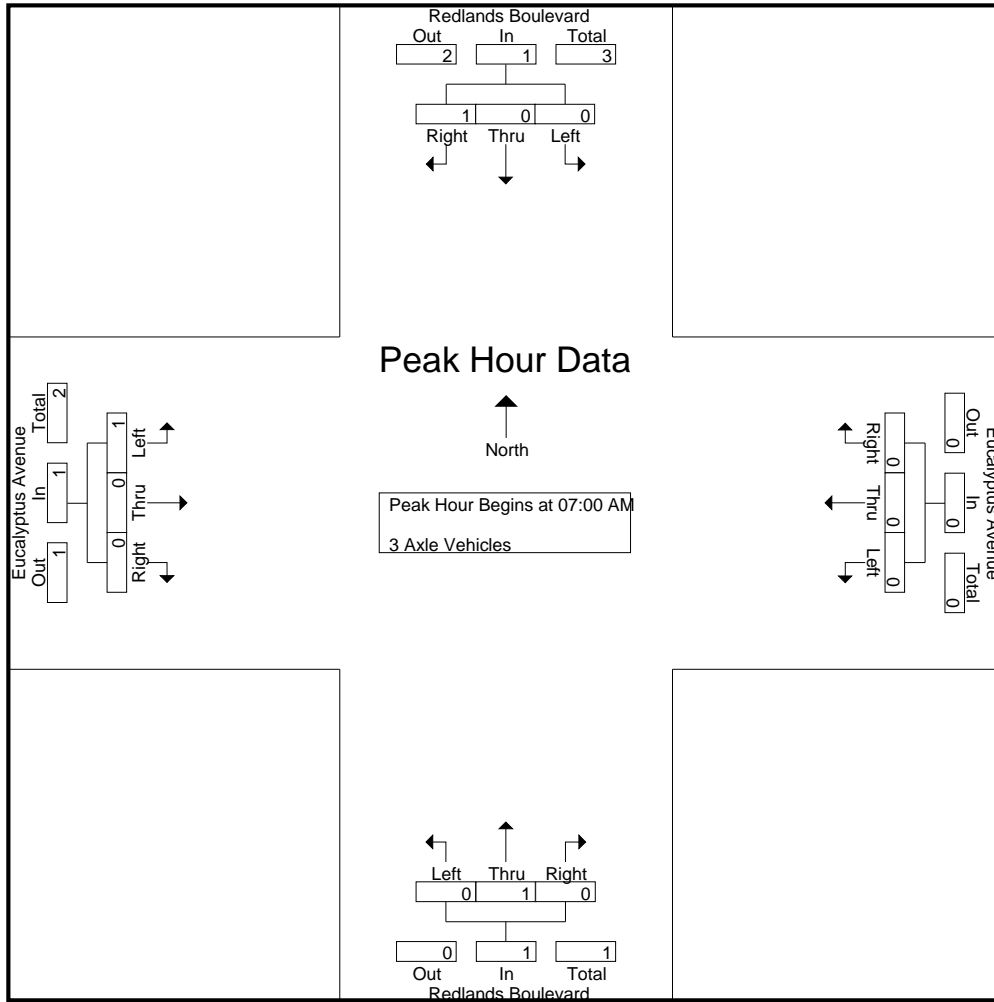
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	1	1	0	0	0	0	0	1	0	1	1	0	0	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	1	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	1	0	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	1	1	0	0	0	0	0	1	0	1	1	0	0	1	3
Grand Total	0	0	2	2	0	0	0	0	0	2	0	2	2	0	0	2	6
Apprch %	0	0	100		0	0	0		0	100	0		100	0	0		
Total %	0	0	33.3	33.3	0	0	0	0	0	33.3	0	33.3	33.3	0	0	33.3	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	1	1	0	0	0	0	0	1	0	1	1	0	0	1	3
% App. Total	0	0	100		0	0	0		0	100	0		100	0	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250	.375



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	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	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	0	1	1	0	0	0	0	0	1	0	1	1	0	0	1
% App. Total	0	0	100		0	0	0		0	100	0		100	0	0	
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250

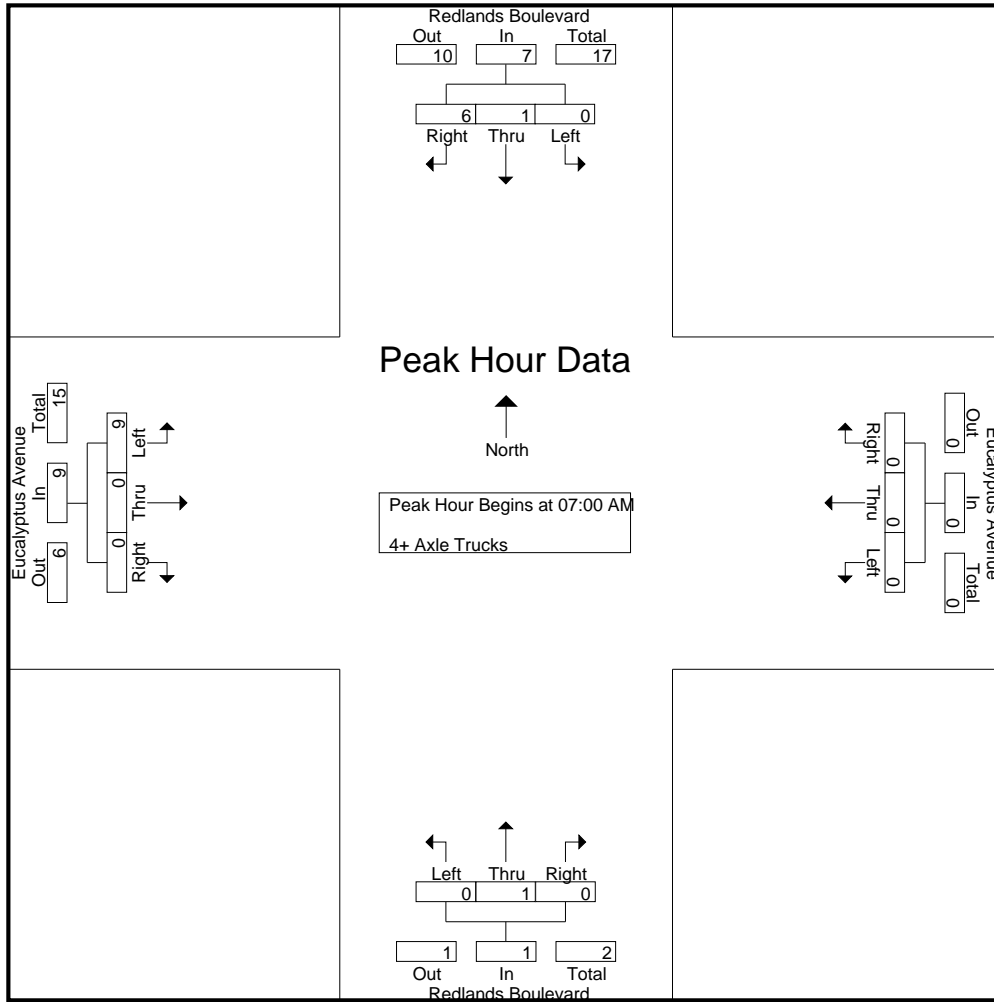
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:15 AM	0	1	3	4	0	0	0	0	0	1	0	1	6	0	0	6	11
07:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	2	3
Total	0	1	6	7	0	0	0	0	0	1	0	1	9	0	0	9	17
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	1	3
08:45 AM	0	0	2	2	0	0	0	0	0	0	0	0	2	0	0	2	4
Total	0	0	2	2	0	0	0	0	0	2	0	2	7	0	0	7	11
Grand Total	0	1	8	9	0	0	0	0	0	3	0	3	16	0	0	16	28
Apprch %	0	11.1	88.9		0	0	0		0	100	0		100	0	0		
Total %	0	3.6	28.6	32.1	0	0	0	0	0	10.7	0	10.7	57.1	0	0	57.1	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:15 AM	0	1	3	4	0	0	0	0	0	1	0	1	6	0	0	6	11
07:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	2	3
Total Volume	0	1	6	7	0	0	0	0	0	1	0	1	9	0	0	9	17
% App. Total	0	14.3	85.7		0	0	0		0	100	0		100	0	0		
PHF	.000	.250	.500	.438	.000	.000	.000	.000	.000	.250	.000	.250	.375	.000	.000	.375	.386



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+15 mins.	0	1	3	4	0	0	0	0	0	1	0	1	6	0	0	6
+30 mins.	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	2
Total Volume	0	1	6	7	0	0	0	0	0	1	0	1	9	0	0	9
% App. Total	0	14.3	85.7		0	0	0	0	0	100	0		100	0	0	
PHF	.000	.250	.500	.438	.000	.000	.000	.000	.000	.250	.000	.250	.375	.000	.000	.375

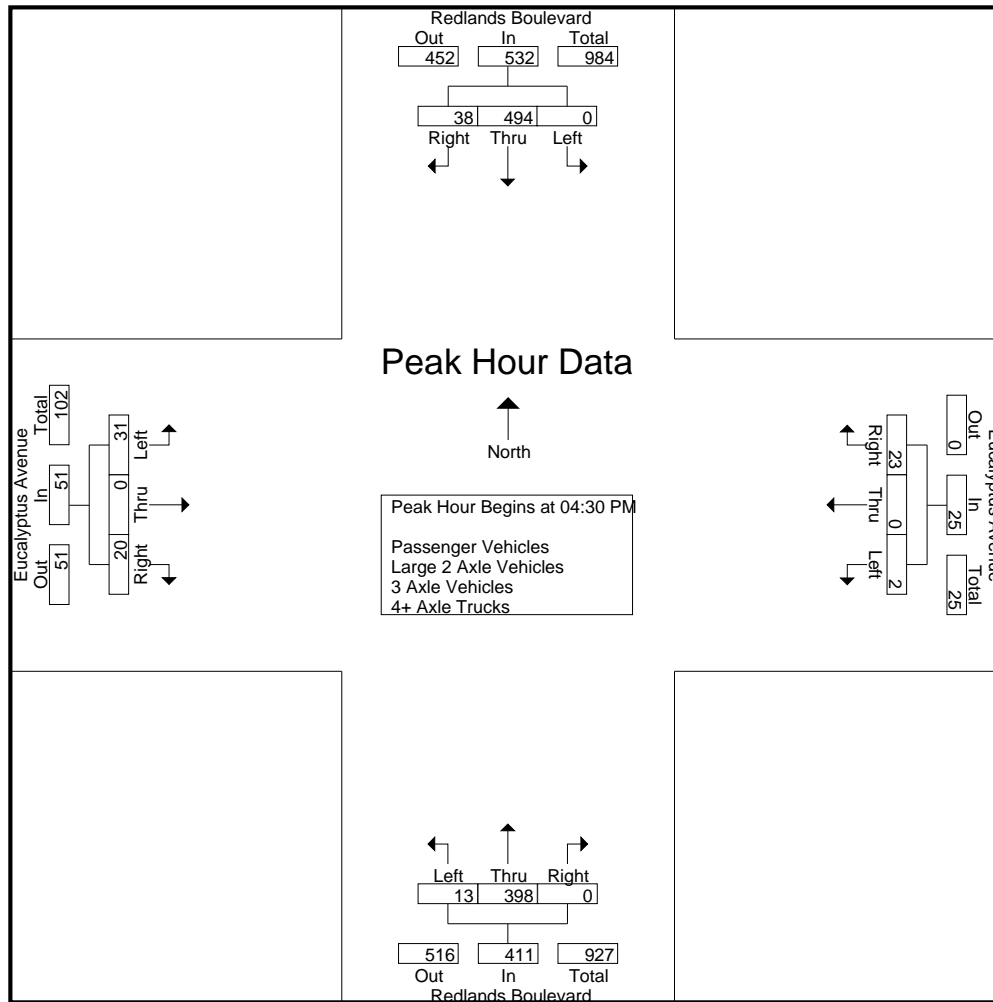
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	117	6	123	1	1	7	9	2	73	0	75	14	0	5	19	226
04:15 PM	0	117	13	130	0	0	2	2	4	90	0	94	5	1	9	15	241
04:30 PM	0	127	6	133	0	0	11	11	3	92	0	95	9	0	6	15	254
04:45 PM	0	124	13	137	0	0	3	3	1	103	0	104	8	0	7	15	259
Total	0	485	38	523	1	1	23	25	10	358	0	368	36	1	27	64	980
05:00 PM	0	125	8	133	0	0	6	6	4	86	0	90	6	0	2	8	237
05:15 PM	0	118	11	129	2	0	3	5	5	117	0	122	8	0	5	13	269
05:30 PM	0	125	8	133	2	0	7	9	0	86	0	86	3	0	6	9	237
05:45 PM	0	138	8	146	0	2	3	5	9	76	1	86	4	1	3	8	245
Total	0	506	35	541	4	2	19	25	18	365	1	384	21	1	16	38	988
Grand Total	0	991	73	1064	5	3	42	50	28	723	1	752	57	2	43	102	1968
Apprch %	0	93.1	6.9		10	6	84		3.7	96.1	0.1		55.9	2	42.2		
Total %	0	50.4	3.7	54.1	0.3	0.2	2.1	2.5	1.4	36.7	0.1	38.2	2.9	0.1	2.2	5.2	
Passenger Vehicles	0	963	65	1028	5	3	42	50	27	713	1	741	54	2	40	96	1915
% Passenger Vehicles	0	97.2	89	96.6	100	100	100	100	96.4	98.6	100	98.5	94.7	100	93	94.1	97.3
Large 2 Axle Vehicles	0	24	4	28	0	0	0	0	1	8	0	9	0	0	2	2	39
% Large 2 Axle Vehicles	0	2.4	5.5	2.6	0	0	0	0	3.6	1.1	0	1.2	0	0	4.7	2	2
3 Axle Vehicles	0	2	1	3	0	0	0	0	0	1	0	1	0	0	1	1	5
% 3 Axle Vehicles	0	0.2	1.4	0.3	0	0	0	0	0	0.1	0	0.1	0	0	2.3	1	0.3
4+ Axle Trucks	0	2	3	5	0	0	0	0	0	1	0	1	3	0	0	3	9
% 4+ Axle Trucks	0	0.2	4.1	0.5	0	0	0	0	0	0.1	0	0.1	5.3	0	0	2.9	0.5

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	127	6	133	0	0	11	11	3	92	0	95	9	0	6	15	254
04:45 PM	0	124	13	137	0	0	3	3	1	103	0	104	8	0	7	15	259
05:00 PM	0	125	8	133	0	0	6	6	4	86	0	90	6	0	2	8	237
05:15 PM	0	118	11	129	2	0	3	5	5	117	0	122	8	0	5	13	269
Total Volume	0	494	38	532	2	0	23	25	13	398	0	411	31	0	20	51	1019
% App. Total	0	92.9	7.1		8	0	92		3.2	96.8	0		60.8	0	39.2		
PHF	.000	.972	.731	.971	.250	.000	.523	.568	.650	.850	.000	.842	.861	.000	.714	.850	.947



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				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	0	125	8	133	1	1	7	9	3	92	0	95	14	0	5	19
+15 mins.	0	118	11	129	0	0	2	2	1	103	0	104	5	1	9	15
+30 mins.	0	125	8	133	0	0	11	11	4	86	0	90	9	0	6	15
+45 mins.	0	138	8	146	0	0	3	3	5	117	0	122	8	0	7	15
Total Volume	0	506	35	541	1	1	23	25	13	398	0	411	36	1	27	64
% App. Total	0	93.5	6.5		4	4	92		3.2	96.8	0		56.2	1.6	42.2	
PHF	.000	.917	.795	.926	.250	.250	.523	.568	.650	.850	.000	.842	.643	.250	.750	.842

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MR_V_Red_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

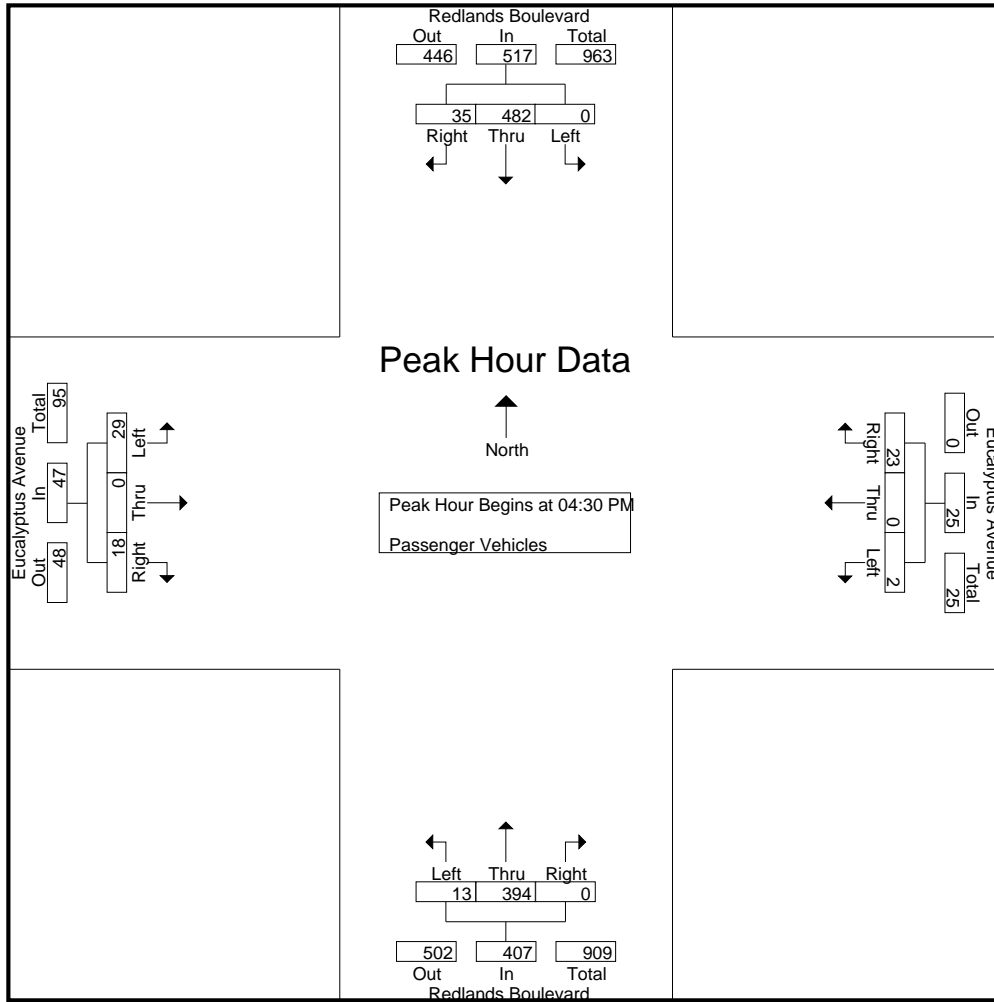
Groups Printed- Passenger Vehicles

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	112	6	118	1	1	7	9	2	71	0	73	14	0	5	19	219
04:15 PM	0	112	11	123	0	0	2	2	4	87	0	91	5	1	8	14	230
04:30 PM	0	124	6	130	0	0	11	11	3	92	0	95	9	0	6	15	251
04:45 PM	0	122	12	134	0	0	3	3	1	103	0	104	6	0	7	13	254
Total	0	470	35	505	1	1	23	25	10	353	0	363	34	1	26	61	954
05:00 PM	0	122	7	129	0	0	6	6	4	84	0	88	6	0	1	7	230
05:15 PM	0	114	10	124	2	0	3	5	5	115	0	120	8	0	4	12	261
05:30 PM	0	124	5	129	2	0	7	9	0	86	0	86	3	0	6	9	233
05:45 PM	0	133	8	141	0	2	3	5	8	75	1	84	3	1	3	7	237
Total	0	493	30	523	4	2	19	25	17	360	1	378	20	1	14	35	961
Grand Total	0	963	65	1028	5	3	42	50	27	713	1	741	54	2	40	96	1915
Apprch %	0	93.7	6.3		10	6	84		3.6	96.2	0.1		56.2	2.1	41.7		
Total %	0	50.3	3.4	53.7	0.3	0.2	2.2	2.6	1.4	37.2	0.1	38.7	2.8	0.1	2.1	5	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	124	6	130	0	0	11	11	3	92	0	95	9	0	6	15	251
04:45 PM	0	122	12	134	0	0	3	3	1	103	0	104	6	0	7	13	254
05:00 PM	0	122	7	129	0	0	6	6	4	84	0	88	6	0	1	7	230
05:15 PM	0	114	10	124	2	0	3	5	5	115	0	120	8	0	4	12	261
Total Volume	0	482	35	517	2	0	23	25	13	394	0	407	29	0	18	47	996
% App. Total	0	93.2	6.8		8	0	92		3.2	96.8	0		61.7	0	38.3		
PHF	.000	.972	.729	.965	.250	.000	.523	.568	.650	.857	.000	.848	.806	.000	.643	.783	.954

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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	124	6	130	0	0	11	11	3	92	0	95	9	0	6	15
+15 mins.	0	122	12	134	0	0	3	3	1	103	0	104	6	0	7	13
+30 mins.	0	122	7	129	0	0	6	6	4	84	0	88	6	0	1	7
+45 mins.	0	114	10	124	2	0	3	5	5	115	0	120	8	0	4	12
Total Volume	0	482	35	517	2	0	23	25	13	394	0	407	29	0	18	47
% App. Total	0	93.2	6.8		8	0	92		3.2	96.8	0		61.7	0	38.3	
PHF	.000	.972	.729	.965	.250	.000	.523	.568	.650	.857	.000	.848	.806	.000	.643	.783

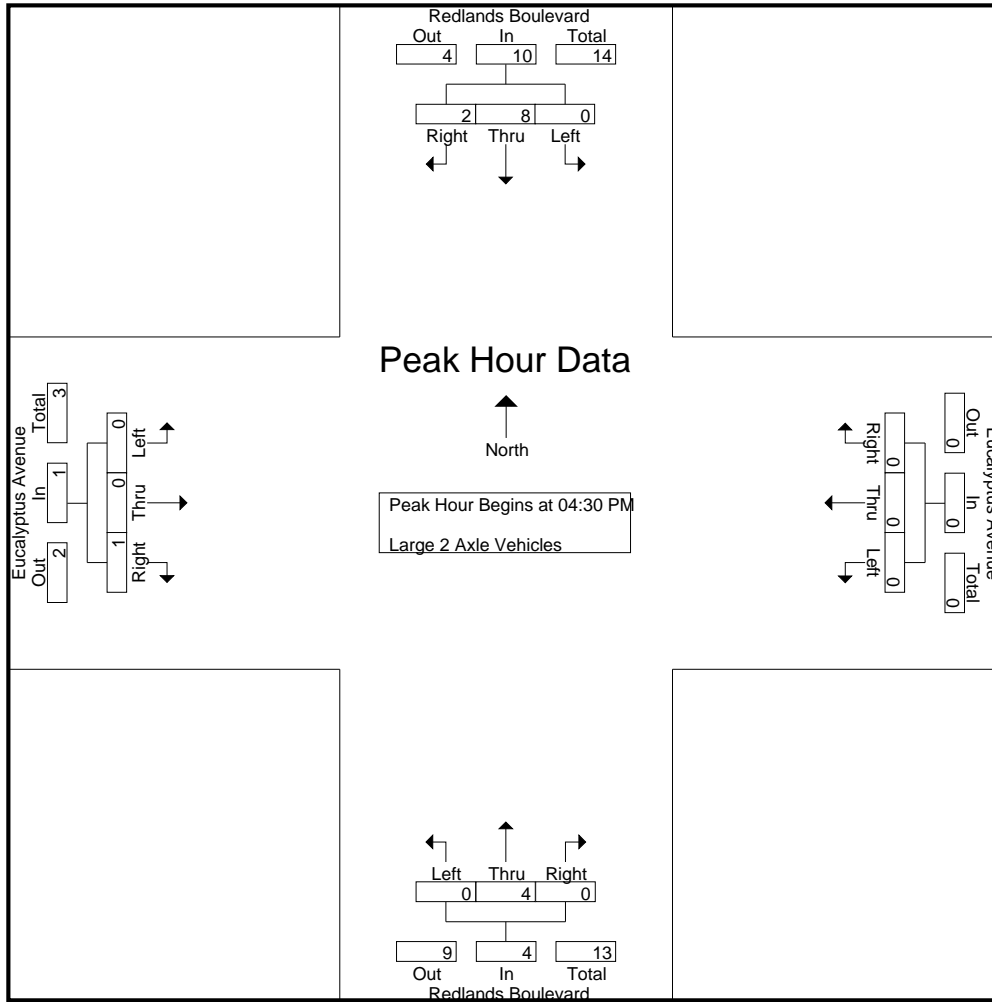
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MR_V_Red_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	5	0	5	0	0	0	0	0	2	0	2	0	0	0	0	7
04:15 PM	0	5	0	5	0	0	0	0	0	2	0	2	0	0	1	1	8
04:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	14	1	15	0	0	0	0	0	4	0	4	0	0	1	1	20
05:00 PM	0	1	1	2	0	0	0	0	0	2	0	2	0	0	0	0	4
05:15 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	1	1	6
05:30 PM	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	5	0	5	0	0	0	0	1	0	0	1	0	0	0	0	6
Total	0	10	3	13	0	0	0	0	1	4	0	5	0	0	1	1	19
Grand Total	0	24	4	28	0	0	0	0	1	8	0	9	0	0	2	2	39
Apprch %	0	85.7	14.3		0	0	0		11.1	88.9	0		0	0	100		
Total %	0	61.5	10.3	71.8	0	0	0	0	2.6	20.5	0	23.1	0	0	5.1	5.1	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	0	0	0	2
04:45 PM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00 PM	0	1	1	2	0	0	0	0	0	2	0	2	0	0	0	0	4
05:15 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	1	1	6
Total Volume	0	8	2	10	0	0	0	0	0	4	0	4	0	0	1	1	15
% App. Total	0	80	20		0	0	0		0	100	0		0	0	100		
PHF	.000	.667	.500	.833	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250	.625



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	0	0	0	0	0	0	0
+15 mins.	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	2	0	0	0	0	0	2	0	2	0	0	0	0
+45 mins.	0	3	0	3	0	0	0	0	0	2	0	2	0	0	1	1
Total Volume	0	8	2	10	0	0	0	0	0	4	0	4	0	0	1	1
% App. Total	0	80	20		0	0	0		0	100	0		0	0	100	
PHF	.000	.667	.500	.833	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250

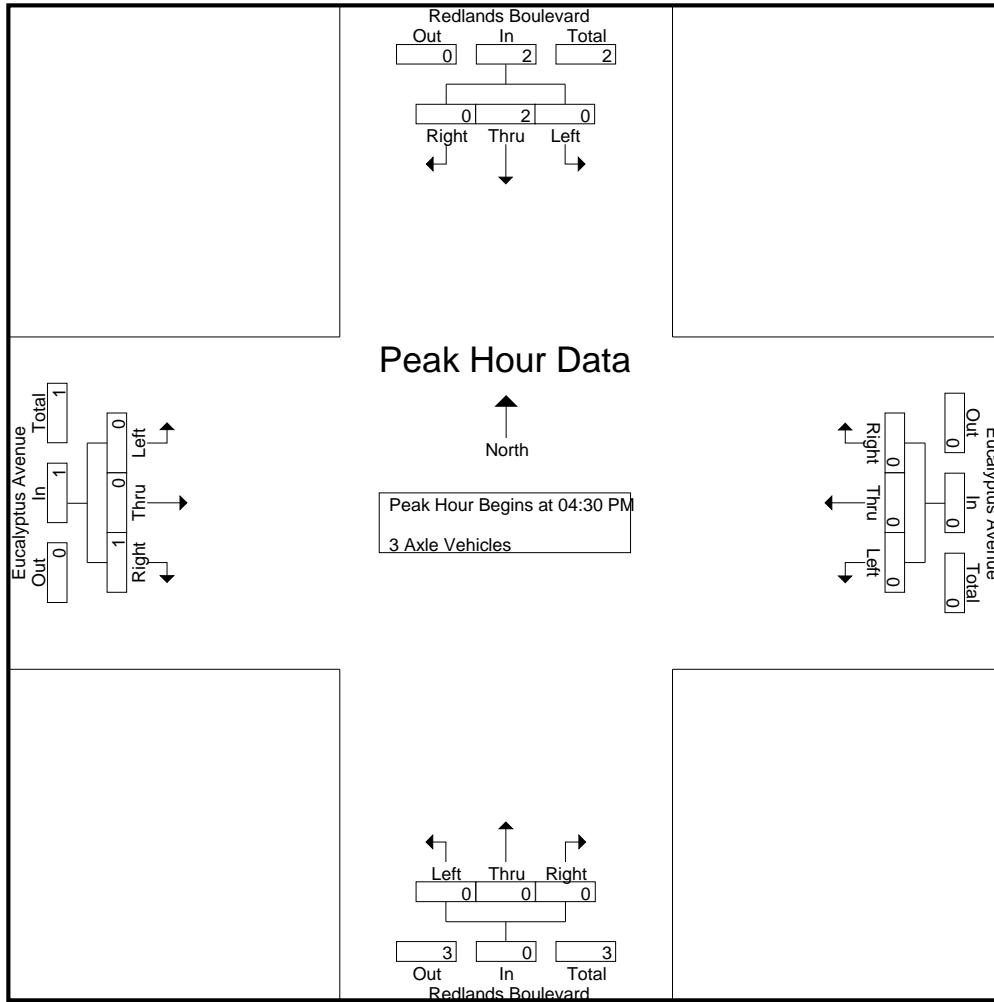
City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MR_V_Red_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	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	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	2	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3
Grand Total	0	2	1	3	0	0	0	0	0	1	0	1	0	0	1	1	5
Apprch %	0	66.7	33.3		0	0	0		0	100	0		0	0	100		
Total %	0	40	20	60	0	0	0	0	0	20	0	20	0	0	20	20	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3
% App. Total	0	100	0		0	0	0		0	0	0		0	0	100		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.375



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	0	0	0	0	0	0	0	0	0	0	0	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	1	1
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	1
% App. Total	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100	0
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

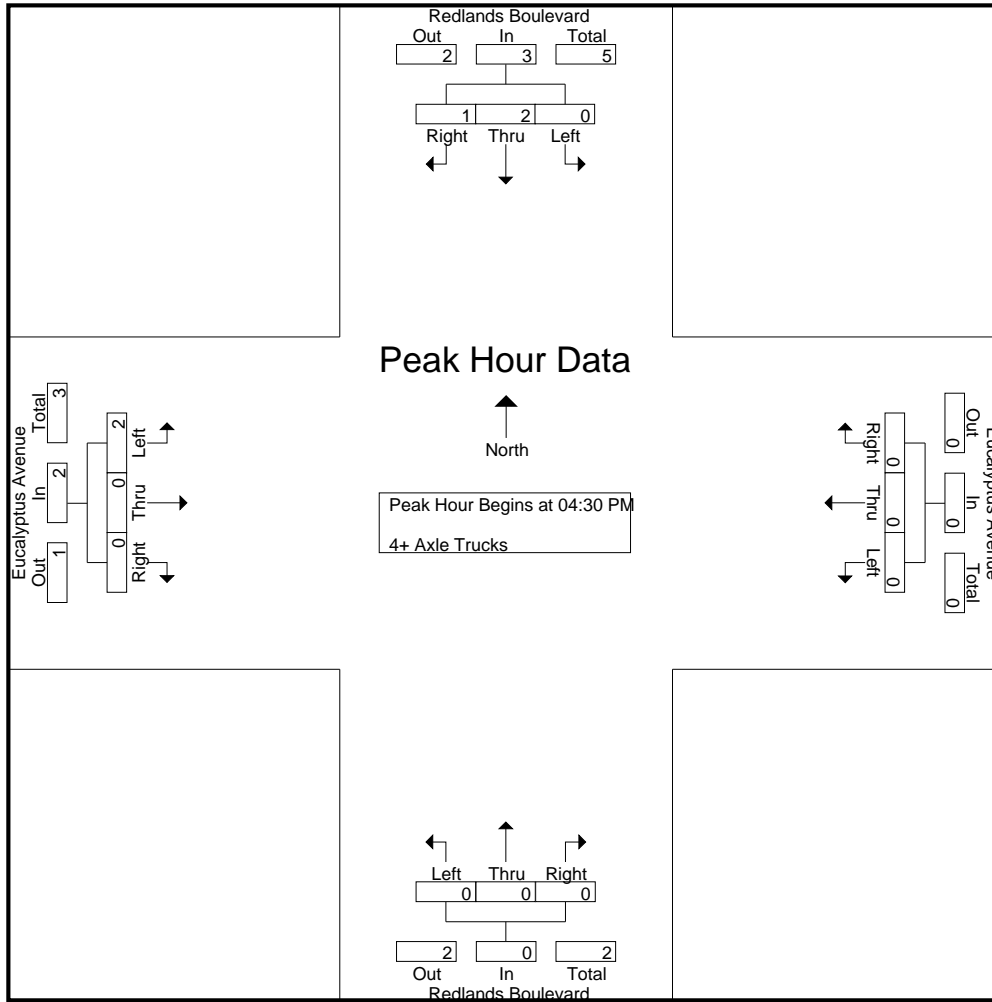
Groups Printed- 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	1	1	2	0	0	0	0	0	0	0	0	2	0	0	2	4
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	1	2	3	0	0	0	0	0	1	0	1	1	0	0	1	5
Grand Total	0	2	3	5	0	0	0	0	0	1	0	1	3	0	0	3	9
Apprch %	0	40	60		0	0	0		0	100	0		100	0	0		
Total %	0	22.2	33.3	55.6	0	0	0	0	0	11.1	0	11.1	33.3	0	0	33.3	

Start Time	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	1	3	0	0	0	0	0	0	0	0	2	0	0	2	5
% App. Total	0	66.7	33.3		0	0	0		0	0	0		100	0	0		
PHF	.000	.500	.250	.750	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.625

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Eucalyptus Avenue
 Weather: Clear

File Name : 22_MRV_Red_Eucalyptus PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	1	3	0	0	0	0	0	0	0	0	2	0	0	2
% App. Total	0	66.7	33.3		0	0	0	0	0	0	0	0	100	0	0	
PHF	.000	.500	.250	.750	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

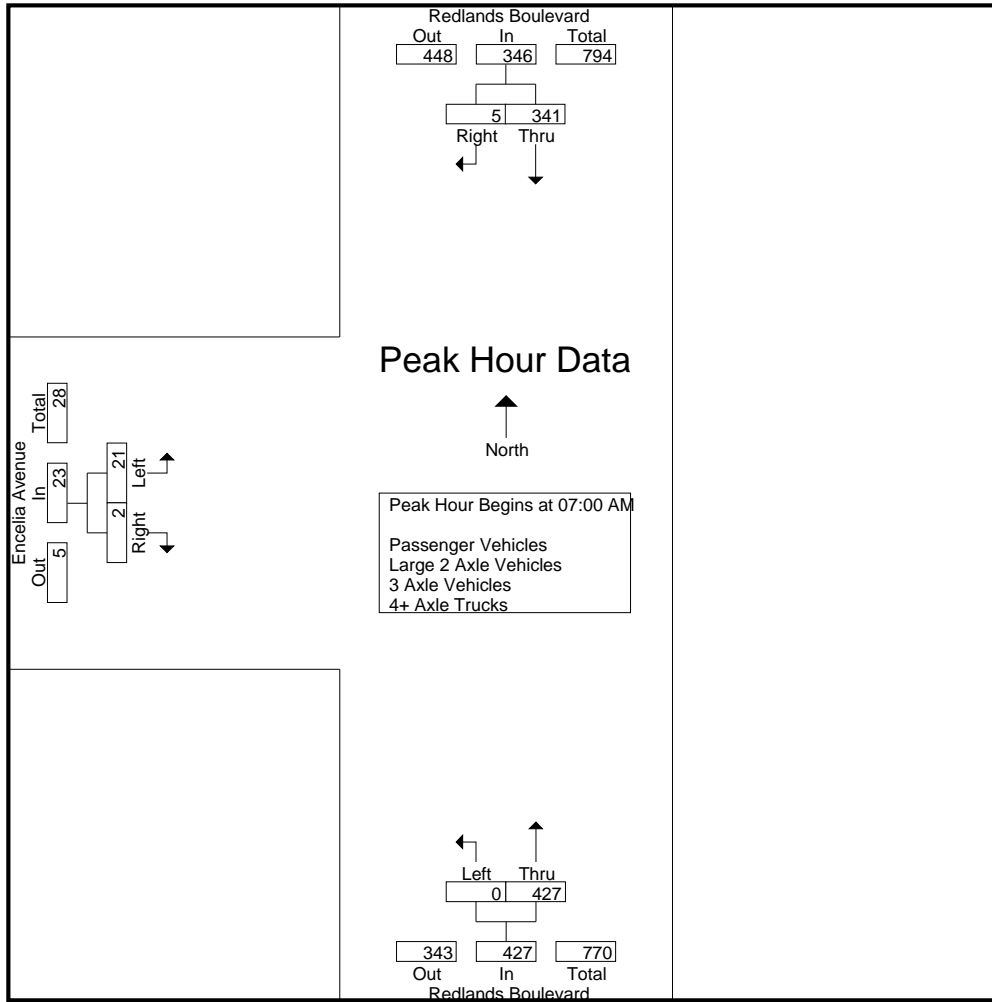
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	86	1	87	0	155	155	10	1	11	253
07:15 AM	80	1	81	0	98	98	3	1	4	183
07:30 AM	95	3	98	0	83	83	5	0	5	186
07:45 AM	80	0	80	0	91	91	3	0	3	174
Total	341	5	346	0	427	427	21	2	23	796
08:00 AM	68	3	71	0	98	98	5	0	5	174
08:15 AM	50	4	54	0	102	102	2	0	2	158
08:30 AM	47	2	49	0	79	79	2	0	2	130
08:45 AM	47	0	47	0	73	73	5	0	5	125
Total	212	9	221	0	352	352	14	0	14	587
Grand Total	553	14	567	0	779	779	35	2	37	1383
Apprch %	97.5	2.5		0	100		94.6	5.4		
Total %	40	1	41	0	56.3	56.3	2.5	0.1	2.7	
Passenger Vehicles	536	14	550	0	768	768	33	2	35	1353
% Passenger Vehicles	96.9	100	97	0	98.6	98.6	94.3	100	94.6	97.8
Large 2 Axle Vehicles	16	0	16	0	6	6	2	0	2	24
% Large 2 Axle Vehicles	2.9	0	2.8	0	0.8	0.8	5.7	0	5.4	1.7
3 Axle Vehicles	0	0	0	0	2	2	0	0	0	2
% 3 Axle Vehicles	0	0	0	0	0.3	0.3	0	0	0	0.1
4+ Axle Trucks	1	0	1	0	3	3	0	0	0	4
% 4+ Axle Trucks	0.2	0	0.2	0	0.4	0.4	0	0	0	0.3

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	86	1	87	0	155	155	10	1	11	253
07:15 AM	80	1	81	0	98	98	3	1	4	183
07:30 AM	95	3	98	0	83	83	5	0	5	186
07:45 AM	80	0	80	0	91	91	3	0	3	174
Total Volume	341	5	346	0	427	427	21	2	23	796
% App. Total	98.6	1.4		0	100		91.3	8.7		
PHF	.897	.417	.883	.000	.689	.689	.525	.500	.523	.787

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia AM
 Site Code : 99919736
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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:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	86	1	87	0	155	155	10	1	11
+15 mins.	80	1	81	0	98	98	3	1	4
+30 mins.	95	3	98	0	83	83	5	0	5
+45 mins.	80	0	80	0	91	91	3	0	3
Total Volume	341	5	346	0	427	427	21	2	23
% App. Total	98.6	1.4		0	100		91.3	8.7	
PHF	.897	.417	.883	.000	.689	.689	.525	.500	.523

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Groups Printed- Passenger Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	81	1	82	0	153	153	10	1	11	246
07:15 AM	79	1	80	0	97	97	3	1	4	181
07:30 AM	93	3	96	0	80	80	3	0	3	179
07:45 AM	79	0	79	0	90	90	3	0	3	172
Total	332	5	337	0	420	420	19	2	21	778
08:00 AM	65	3	68	0	97	97	5	0	5	170
08:15 AM	49	4	53	0	102	102	2	0	2	157
08:30 AM	44	2	46	0	77	77	2	0	2	125
08:45 AM	46	0	46	0	72	72	5	0	5	123
Total	204	9	213	0	348	348	14	0	14	575
Grand Total	536	14	550	0	768	768	33	2	35	1353
Apprch %	97.5	2.5		0	100		94.3	5.7		
Total %	39.6	1	40.7	0	56.8	56.8	2.4	0.1	2.6	

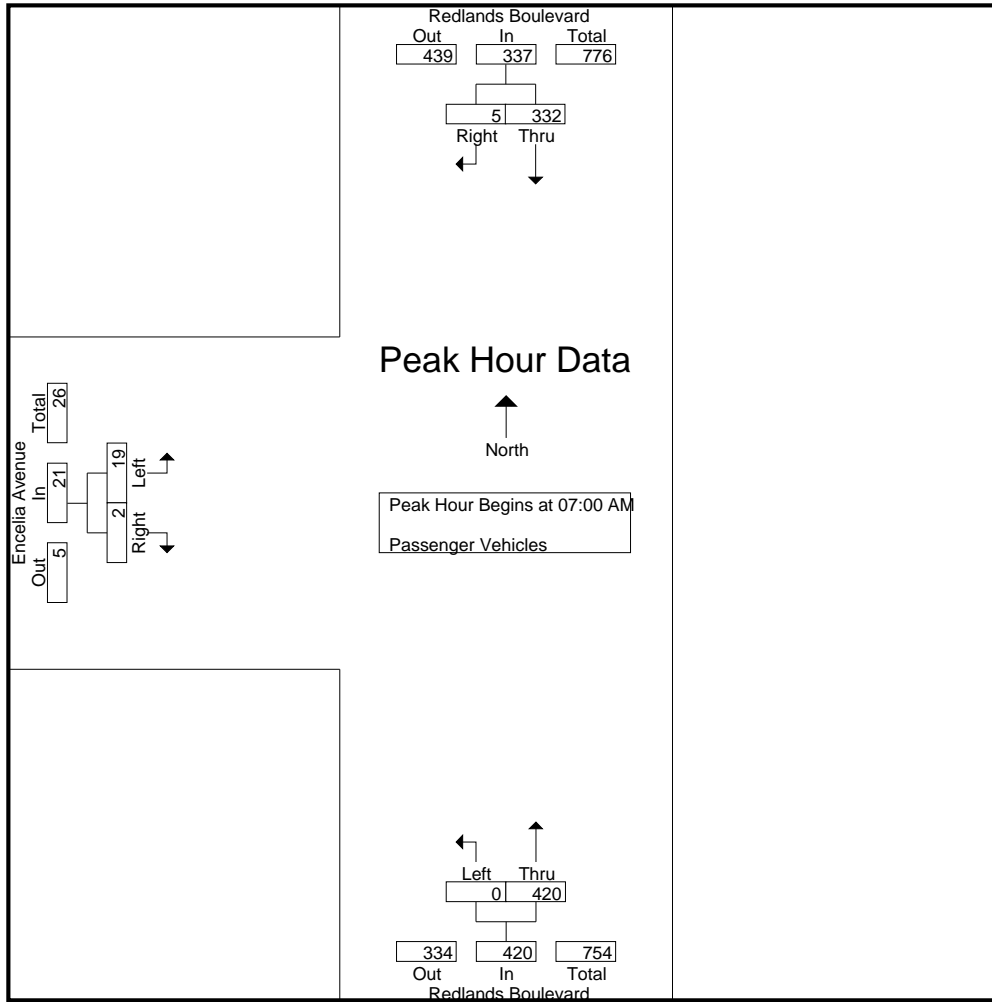
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	81	1	82	0	153	153	10	1	11	246
07:15 AM	79	1	80	0	97	97	3	1	4	181
07:30 AM	93	3	96	0	80	80	3	0	3	179
07:45 AM	79	0	79	0	90	90	3	0	3	172
Total Volume	332	5	337	0	420	420	19	2	21	778
% App. Total	98.5	1.5		0	100		90.5	9.5		
PHF	.892	.417	.878	.000	.686	.686	.475	.500	.477	.791

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	81	1	82	0	153	153	10	1	11
+15 mins.	79	1	80	0	97	97	3	1	4
+30 mins.	93	3	96	0	80	80	3	0	3
+45 mins.	79	0	79	0	90	90	3	0	3
Total Volume	332	5	337	0	420	420	19	2	21
% App. Total	98.5	1.5		0	100		90.5	9.5	
PHF	.892	.417	.878	.000	.686	.686	.475	.500	.477

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

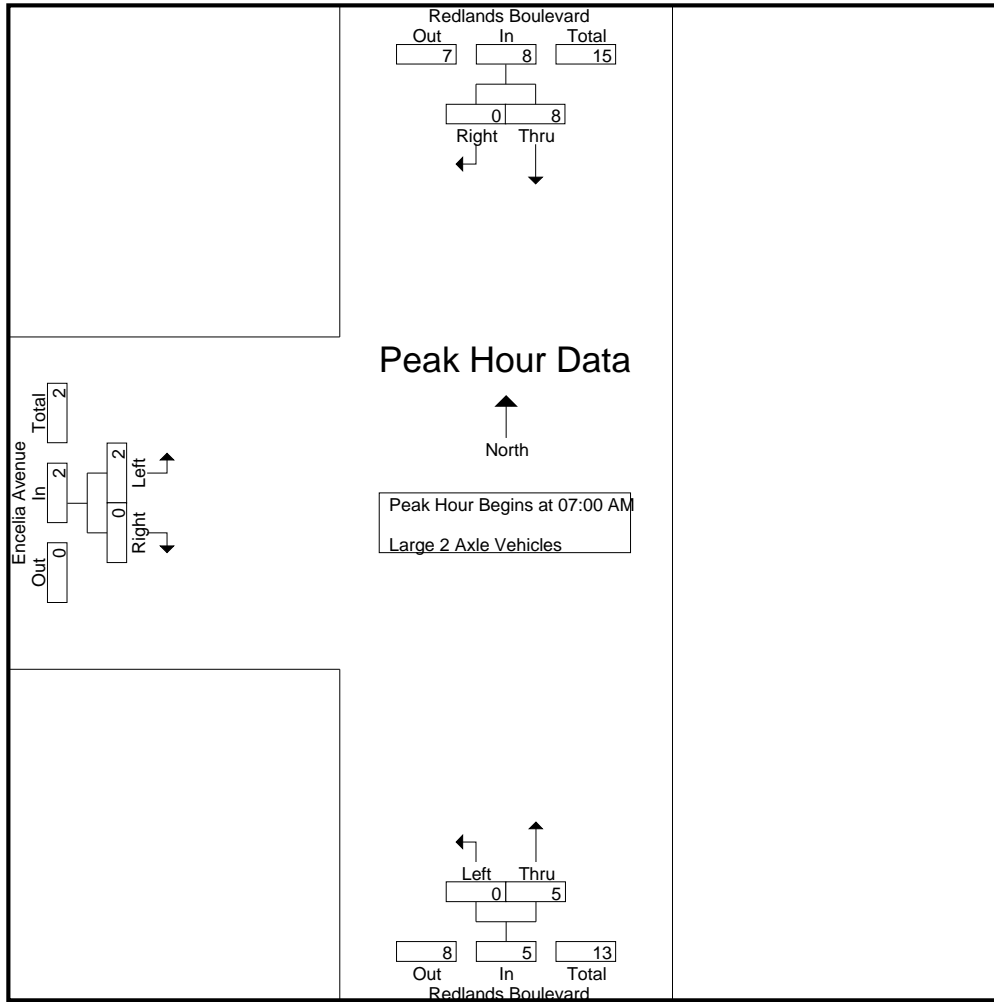
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	5	0	5	0	2	2	0	0	0	7
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	2	0	2	0	2	2	2	0	2	6
07:45 AM	1	0	1	0	1	1	0	0	0	2
Total	8	0	8	0	5	5	2	0	2	15
08:00 AM	3	0	3	0	1	1	0	0	0	4
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	3	0	3	0	0	0	0	0	0	3
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	8	0	8	0	1	1	0	0	0	9
Grand Total	16	0	16	0	6	6	2	0	2	24
Apprch %	100	0		0	100		100	0		
Total %	66.7	0	66.7	0	25	25	8.3	0	8.3	

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	5	0	5	0	2	2	0	0	0	7
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	2	0	2	0	2	2	2	0	2	6
07:45 AM	1	0	1	0	1	1	0	0	0	2
Total Volume	8	0	8	0	5	5	2	0	2	15
% App. Total	100	0		0	100		100	0		
PHF	.400	.000	.400	.000	.625	.625	.250	.000	.250	.536

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	5	0	5	0	2	2	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	2	0	2	0	2	2	2	0	2
+45 mins.	1	0	1	0	1	1	0	0	0
Total Volume	8	0	8	0	5	5	2	0	2
% App. Total	100	0		0	100		100	0	
PHF	.400	.000	.400	.000	.625	.625	.250	.000	.250

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	0	1	1	0	0	0	1
Grand Total	0	0	0	0	2	2	0	0	0	2
Apprch %	0	0		0	100		0	0		
Total %	0	0		0	100	100	0	0		

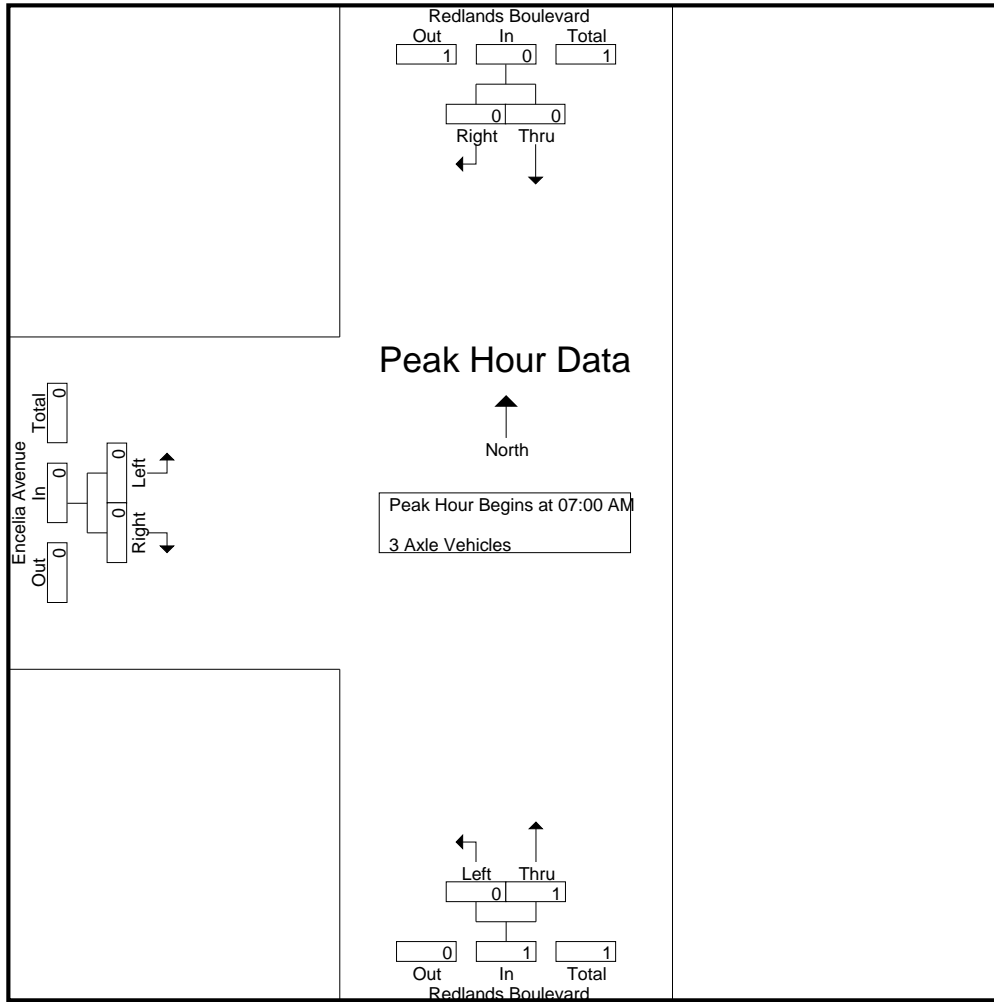
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0	0	0	100	100	0	0	0
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia AM
 Site Code : 99919736
 Start Date : 10/30/2019
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Groups Printed- 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	1	0	1	1	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	1	1	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	2	2	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	2	0	0	0	2
Grand Total	1	0	1	0	3	3	0	0	0	4
Apprch %	100	0		0	100		0	0		
Total %	25	0	25	0	75	75	0	0	0	

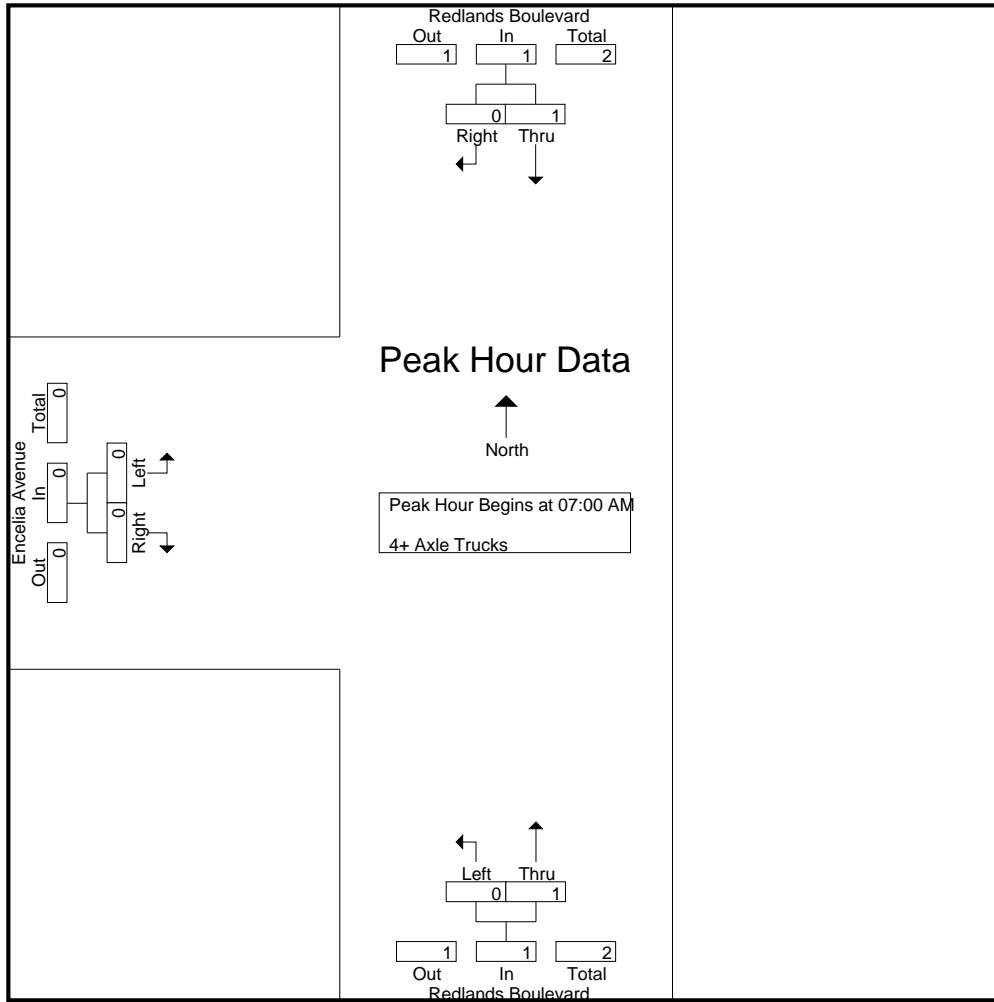
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	1	0	1	1	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	1	1	0	0	0	2
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.250

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	0	1	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	1	1	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

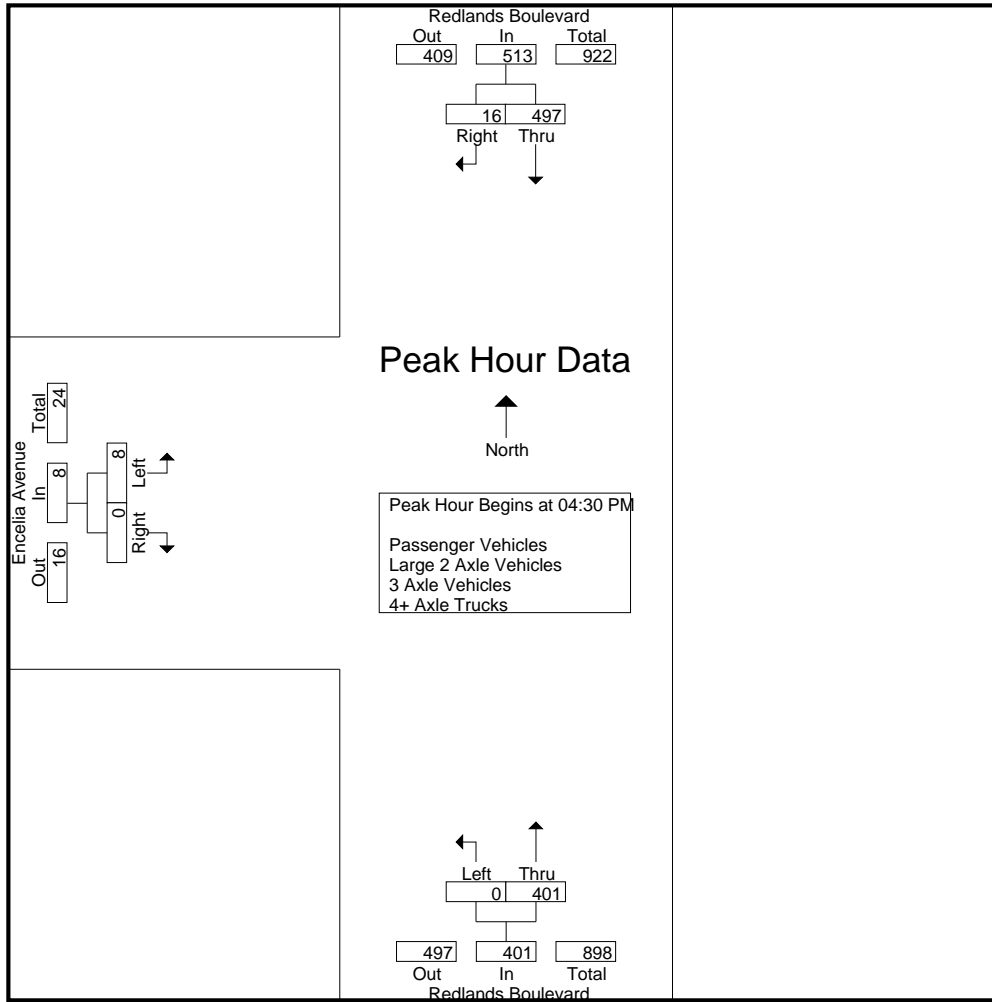
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	116	5	121	0	79	79	1	1	2	202
04:15 PM	118	4	122	0	88	88	0	0	0	210
04:30 PM	134	2	136	0	96	96	2	0	2	234
04:45 PM	127	3	130	0	99	99	3	0	3	232
Total	495	14	509	0	362	362	6	1	7	878
05:00 PM	120	6	126	0	88	88	2	0	2	216
05:15 PM	116	5	121	0	118	118	1	0	1	240
05:30 PM	131	3	134	0	85	85	1	0	1	220
05:45 PM	129	11	140	0	83	83	4	0	4	227
Total	496	25	521	0	374	374	8	0	8	903
Grand Total	991	39	1030	0	736	736	14	1	15	1781
Apprch %	96.2	3.8		0	100		93.3	6.7		
Total %	55.6	2.2	57.8	0	41.3	41.3	0.8	0.1	0.8	
Passenger Vehicles	964	35	999	0	724	724	14	1	15	1738
% Passenger Vehicles	97.3	89.7	97	0	98.4	98.4	100	100	100	97.6
Large 2 Axle Vehicles	22	4	26	0	10	10	0	0	0	36
% Large 2 Axle Vehicles	2.2	10.3	2.5	0	1.4	1.4	0	0	0	2
3 Axle Vehicles	4	0	4	0	1	1	0	0	0	5
% 3 Axle Vehicles	0.4	0	0.4	0	0.1	0.1	0	0	0	0.3
4+ Axle Trucks	1	0	1	0	1	1	0	0	0	2
% 4+ Axle Trucks	0.1	0	0.1	0	0.1	0.1	0	0	0	0.1

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	134	2	136	0	96	96	2	0	2	234
04:45 PM	127	3	130	0	99	99	3	0	3	232
05:00 PM	120	6	126	0	88	88	2	0	2	216
05:15 PM	116	5	121	0	118	118	1	0	1	240
Total Volume	497	16	513	0	401	401	8	0	8	922
% App. Total	96.9	3.1		0	100		100	0		
PHF	.927	.667	.943	.000	.850	.850	.667	.000	.667	.960

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia PM
 Site Code : 99919736
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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			04:30 PM			04:30 PM		
+0 mins.	120	6	126	0	96	96	2	0	2
+15 mins.	116	5	121	0	99	99	3	0	3
+30 mins.	131	3	134	0	88	88	2	0	2
+45 mins.	129	11	140	0	118	118	1	0	1
Total Volume	496	25	521	0	401	401	8	0	8
% App. Total	95.2	4.8		0	100		100	0	
PHF	.947	.568	.930	.000	.850	.850	.667	.000	.667

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia PM
 Site Code : 99919736
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Groups Printed- Passenger Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	112	4	116	0	77	77	1	1	2	195
04:15 PM	114	4	118	0	85	85	0	0	0	203
04:30 PM	132	1	133	0	96	96	2	0	2	231
04:45 PM	125	3	128	0	99	99	3	0	3	230
Total	483	12	495	0	357	357	6	1	7	859
05:00 PM	117	6	123	0	86	86	2	0	2	211
05:15 PM	112	4	116	0	115	115	1	0	1	232
05:30 PM	129	2	131	0	85	85	1	0	1	217
05:45 PM	123	11	134	0	81	81	4	0	4	219
Total	481	23	504	0	367	367	8	0	8	879
Grand Total	964	35	999	0	724	724	14	1	15	1738
Apprch %	96.5	3.5		0	100		93.3	6.7		
Total %	55.5	2	57.5	0	41.7	41.7	0.8	0.1	0.9	

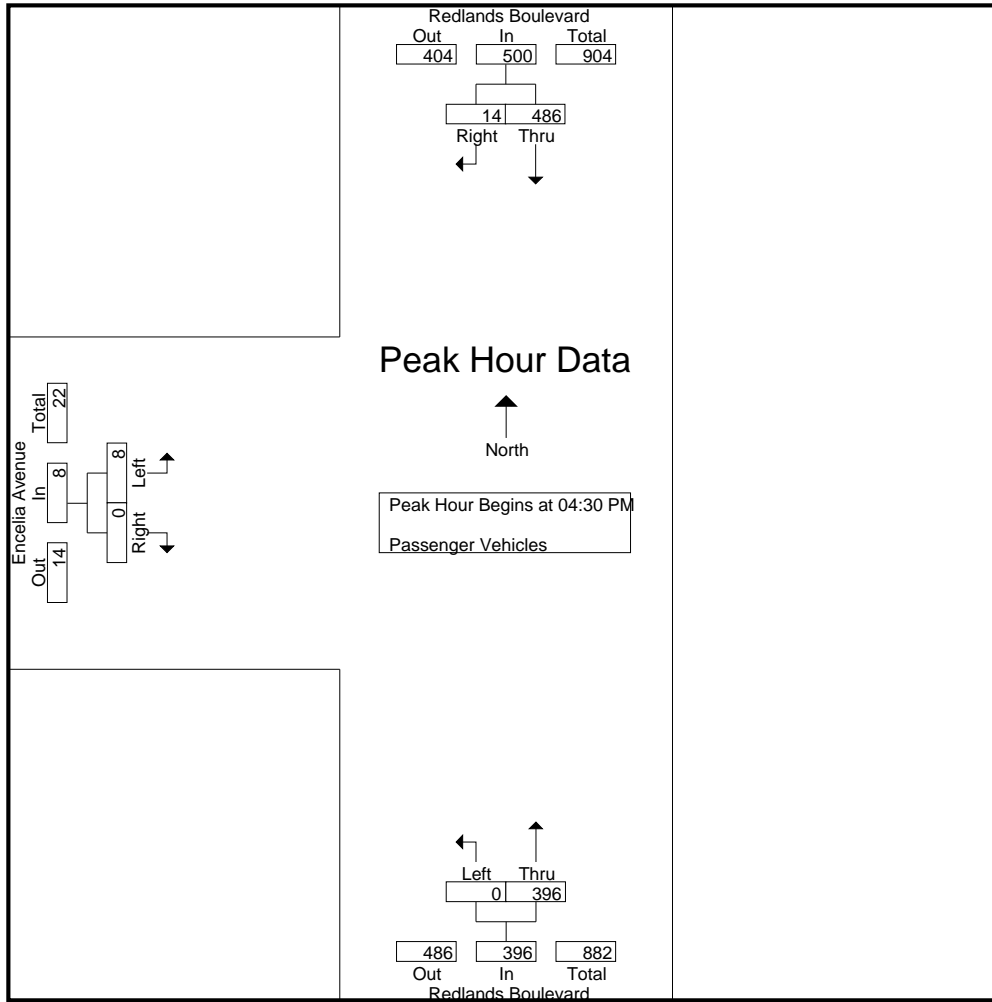
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	132	1	133	0	96	96	2	0	2	231
04:45 PM	125	3	128	0	99	99	3	0	3	230
05:00 PM	117	6	123	0	86	86	2	0	2	211
05:15 PM	112	4	116	0	115	115	1	0	1	232
Total Volume	486	14	500	0	396	396	8	0	8	904
% App. Total	97.2	2.8		0	100		100	0		
PHF	.920	.583	.940	.000	.861	.861	.667	.000	.667	.974

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia PM
 Site Code : 99919736
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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		
+0 mins.	132	1	133	0	96	96	2	0	2
+15 mins.	125	3	128	0	99	99	3	0	3
+30 mins.	117	6	123	0	86	86	2	0	2
+45 mins.	112	4	116	0	115	115	1	0	1
Total Volume	486	14	500	0	396	396	8	0	8
% App. Total	97.2	2.8		0	100		100	0	
PHF	.920	.583	.940	.000	.861	.861	.667	.000	.667

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	3	1	4	0	2	2	0	0	0	6
04:15 PM	4	0	4	0	2	2	0	0	0	6
04:30 PM	1	1	2	0	0	0	0	0	0	2
04:45 PM	2	0	2	0	0	0	0	0	0	2
Total	10	2	12	0	4	4	0	0	0	16
05:00 PM	1	0	1	0	2	2	0	0	0	3
05:15 PM	3	1	4	0	3	3	0	0	0	7
05:30 PM	2	1	3	0	0	0	0	0	0	3
05:45 PM	6	0	6	0	1	1	0	0	0	7
Total	12	2	14	0	6	6	0	0	0	20
Grand Total	22	4	26	0	10	10	0	0	0	36
Apprch %	84.6	15.4		0	100		0	0		
Total %	61.1	11.1	72.2	0	27.8	27.8	0	0	0	

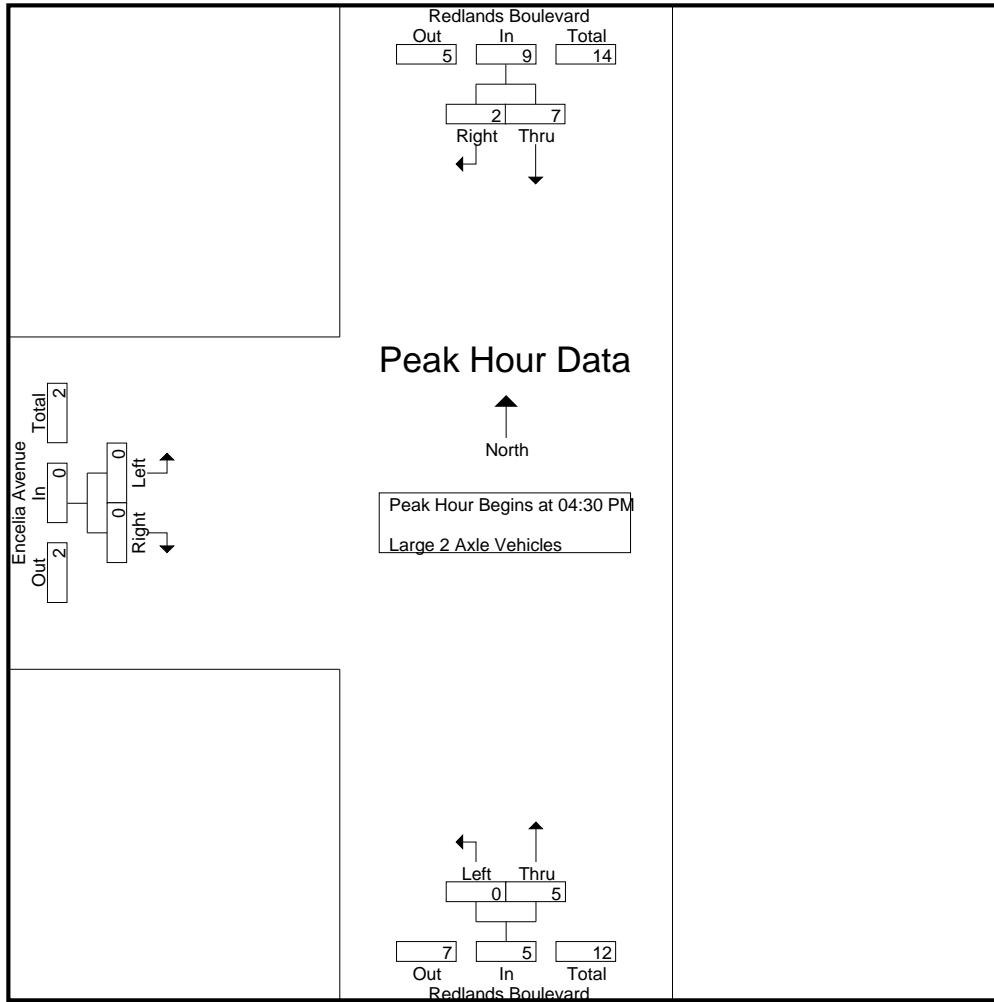
Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	1	1	2	0	0	0	0	0	0	2
04:45 PM	2	0	2	0	0	0	0	0	0	2
05:00 PM	1	0	1	0	2	2	0	0	0	3
05:15 PM	3	1	4	0	3	3	0	0	0	7
Total Volume	7	2	9	0	5	5	0	0	0	14
% App. Total	77.8	22.2		0	100		0	0		
PHF	.583	.500	.563	.000	.417	.417	.000	.000	.000	.500

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

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MRV_Red_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 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		
+0 mins.	1	1	2	0	0	0	0	0	0
+15 mins.	2	0	2	0	0	0	0	0	0
+30 mins.	1	0	1	0	2	2	0	0	0
+45 mins.	3	1	4	0	3	3	0	0	0
Total Volume	7	2	9	0	5	5	0	0	0
% App. Total	77.8	22.2		0	100		0	0	
PHF	.583	.500	.563	.000	.417	.417	.000	.000	.000

City of Moreno Valley
 N/S: Redlands Boulevard
 E/W: Encelia Avenue
 Weather: Clear

File Name : 25_MR_V_Red_Encelia PM
 Site Code : 99919736
 Start Date : 10/30/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	0	1	1	0	0	0	1
Grand Total	1	0	1	0	1	1	0	0	0	2
Apprch %	100	0		0	100		0	0		
Total %	50	0	50	0	50	50	0	0	0	

Start Time	Redlands Boulevard Southbound			Redlands Boulevard Northbound			Encelia Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	0	0	0	1
% App. Total	100	0		0	0		0	0		
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250

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

Counts Unlimited, Inc.

City of Moreno Valley
 Redlands Boulevard
 B/ State Route 60 Ramps
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV006
 Site Code: 999-19736

Notbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	0	42	4	0	0	0	0	0	1	2	0	0	0	49
01:00	0	26	6	1	2	0	0	0	1	1	0	0	2	39
02:00	0	34	15	1	1	1	0	0	2	0	0	0	2	56
03:00	0	62	22	2	8	3	0	0	1	1	0	0	0	99
04:00	0	116	67	2	14	6	1	1	1	1	0	0	0	209
05:00	6	220	102	0	19	13	2	1	6	0	0	0	0	369
06:00	16	477	163	2	31	14	2	2	1	1	0	0	1	710
07:00	16	394	90	1	24	5	3	6	1	1	0	0	3	544
08:00	6	388	141	5	27	8	0	0	1	0	0	0	1	577
09:00	3	316	83	1	20	6	4	5	1	0	0	0	0	439
10:00	4	280	101	6	23	2	3	0	0	0	0	0	0	419
11:00	10	290	91	0	29	2	2	4	3	1	0	0	1	433
12 PM	7	297	120	6	35	4	2	2	2	3	0	0	1	479
13:00	4	374	107	0	20	8	0	1	2	2	2	0	0	520
14:00	13	447	121	6	26	5	1	2	1	2	0	1	1	626
15:00	12	432	134	3	39	13	2	3	1	0	0	0	3	642
16:00	18	508	130	1	24	4	0	3	2	0	0	1	1	692
17:00	20	506	111	1	32	3	2	2	1	1	0	0	1	680
18:00	12	432	106	2	20	4	3	3	0	0	0	0	1	583
19:00	3	281	79	0	6	4	0	1	2	1	0	0	0	377
20:00	1	224	43	1	11	2	2	1	2	1	0	0	0	288
21:00	2	157	39	1	7	2	0	0	1	1	0	0	1	211
22:00	0	138	18	1	5	0	0	2	0	1	0	0	1	166
23:00	0	75	10	1	0	0	0	0	0	1	0	0	0	87
Total	153	6516	1903	44	423	109	29	39	33	21	2	2	20	9294
Percent	1.6%	70.1%	20.5%	0.5%	4.6%	1.2%	0.3%	0.4%	0.4%	0.2%	0.0%	0.0%	0.2%	
AM Peak	06:00	06:00	06:00	10:00	06:00	06:00	09:00	07:00	05:00	00:00			07:00	06:00
Vol.	16	477	163	6	31	14	4	6	6	2			3	710
PM Peak	17:00	16:00	15:00	12:00	15:00	15:00	18:00	15:00	12:00	12:00	13:00	14:00	15:00	16:00
Vol.	20	508	134	6	39	13	3	3	2	3	2	1	3	692
Grand Total	153	6516	1903	44	423	109	29	39	33	21	2	2	20	9294
Percent	1.6%	70.1%	20.5%	0.5%	4.6%	1.2%	0.3%	0.4%	0.4%	0.2%	0.0%	0.0%	0.2%	

Counts Unlimited, Inc.

City of Moreno Valley
 Redlands Boulevard
 B/ State Route 60 Ramps
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV006
 Site Code: 999-19736

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	1	28	13	0	2	1	0	0	0	0	0	0	0	45
01:00	2	22	0	0	0	2	0	0	1	0	0	0	0	27
02:00	0	15	6	0	1	0	0	0	0	0	0	0	0	22
03:00	2	22	5	0	4	2	0	0	0	0	0	0	0	35
04:00	0	24	6	0	6	0	0	1	0	0	0	0	0	37
05:00	1	79	23	0	12	0	0	0	0	0	0	0	0	115
06:00	2	127	32	0	21	0	0	0	0	0	0	0	0	182
07:00	3	256	48	1	28	0	0	2	2	0	0	0	0	340
08:00	1	163	39	3	13	0	0	3	0	0	0	0	0	222
09:00	0	89	31	3	19	1	0	4	1	0	0	0	0	148
10:00	2	96	43	1	17	1	0	0	1	0	0	0	0	161
11:00	2	108	49	3	16	2	0	1	1	0	0	0	0	182
12 PM	5	119	43	2	14	2	0	1	4	0	0	0	0	190
13:00	1	112	50	0	23	2	0	5	1	0	1	0	0	195
14:00	5	148	38	1	24	2	0	2	0	0	0	0	0	220
15:00	3	225	59	1	34	3	0	4	2	0	0	0	0	331
16:00	7	252	74	0	37	5	0	1	1	0	0	0	0	377
17:00	2	250	73	1	26	6	1	2	1	0	0	0	0	362
18:00	2	260	91	2	27	1	0	1	1	0	0	0	0	385
19:00	1	139	29	0	17	1	0	1	1	0	0	0	0	189
20:00	0	114	36	0	13	1	0	0	0	0	0	0	0	164
21:00	1	77	21	0	6	0	0	0	0	0	0	0	0	105
22:00	0	52	9	0	2	0	0	0	0	0	0	0	0	63
23:00	3	35	10	1	3	2	0	0	1	0	0	0	0	55
Total	46	2812	828	19	365	34	1	28	18	0	1	0	0	4152
Percent	1.1%	67.7%	19.9%	0.5%	8.8%	0.8%	0.0%	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	11:00	08:00	07:00	01:00		09:00	07:00					07:00
Vol.	3	256	49	3	28	2		4	2					340
PM Peak	16:00	18:00	18:00	12:00	16:00	17:00	17:00	13:00	12:00		13:00			18:00
Vol.	7	260	91	2	37	6	1	5	4		1			385
Grand Total	46	2812	828	19	365	34	1	28	18	0	1	0	0	4152
Percent	1.1%	67.7%	19.9%	0.5%	8.8%	0.8%	0.0%	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Redlands Boulevard
 B/ State Route 60 Ramps
 24 Hour Directional Classification Count

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 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV006
 Site Code: 999-19736

Notbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	1	70	17	0	2	1	0	0	1	2	0	0	0	94
01:00	2	48	6	1	2	2	0	0	2	1	0	0	2	66
02:00	0	49	21	1	2	1	0	0	2	0	0	0	2	78
03:00	2	84	27	2	12	5	0	0	1	1	0	0	0	134
04:00	0	140	73	2	20	6	1	2	1	1	0	0	0	246
05:00	7	299	125	0	31	13	2	1	6	0	0	0	0	484
06:00	18	604	195	2	52	14	2	2	1	1	0	0	1	892
07:00	19	650	138	2	52	5	3	8	3	1	0	0	3	884
08:00	7	551	180	8	40	8	0	3	1	0	0	0	1	799
09:00	3	405	114	4	39	7	4	9	2	0	0	0	0	587
10:00	6	376	144	7	40	3	3	0	1	0	0	0	0	580
11:00	12	398	140	3	45	4	2	5	4	1	0	0	1	615
12 PM	12	416	163	8	49	6	2	3	6	3	0	0	1	669
13:00	5	486	157	0	43	10	0	6	3	2	3	0	0	715
14:00	18	595	159	7	50	7	1	4	1	2	0	1	1	846
15:00	15	657	193	4	73	16	2	7	3	0	0	0	3	973
16:00	25	760	204	1	61	9	0	4	3	0	0	1	1	1069
17:00	22	756	184	2	58	9	3	4	2	1	0	0	1	1042
18:00	14	692	197	4	47	5	3	4	1	0	0	0	1	968
19:00	4	420	108	0	23	5	0	2	3	1	0	0	0	566
20:00	1	338	79	1	24	3	2	1	2	1	0	0	0	452
21:00	3	234	60	1	13	2	0	0	1	1	0	0	1	316
22:00	0	190	27	1	7	0	0	2	0	1	0	0	1	229
23:00	3	110	20	2	3	2	0	0	1	1	0	0	0	142
Total	199	9328	2731	63	788	143	30	67	51	21	3	2	20	13446
Percent	1.5%	69.4%	20.3%	0.5%	5.9%	1.1%	0.2%	0.5%	0.4%	0.2%	0.0%	0.0%	0.1%	
AM Peak	07:00	07:00	06:00	08:00	06:00	06:00	09:00	09:00	05:00	00:00			07:00	06:00
Vol.	19	650	195	8	52	14	4	9	6	2			3	892
PM Peak	16:00	16:00	16:00	12:00	15:00	15:00	17:00	15:00	12:00	12:00	13:00	14:00	15:00	16:00
Vol.	25	760	204	8	73	16	3	7	6	3	3	1	3	1069
Grand Total	199	9328	2731	63	788	143	30	67	51	21	3	2	20	13446
Percent	1.5%	69.4%	20.3%	0.5%	5.9%	1.1%	0.2%	0.5%	0.4%	0.2%	0.0%	0.0%	0.1%	

Counts Unlimited, Inc

PO Box 1178
 Corona, CA 92878
 Phone: 951-268-6268
 email: counts@countsunlimited.com

City of Moreno Valley
 Redlands Boulevard
 B/ State Route 60 Eastbound - Fir Avenue
 24 Hour Directional Classification Count

MRV018C
 Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	3	23	1	0	0	8	0	0	1	0	0	0	0	36
01:00	1	28	3	0	0	2	0	0	0	0	0	0	0	34
02:00	5	30	2	0	0	11	0	0	3	0	0	0	0	51
03:00	4	62	15	0	3	3	0	0	0	0	0	0	0	87
04:00	4	99	24	1	5	8	0	0	2	0	0	0	0	143
05:00	5	186	37	0	11	12	0	2	1	0	0	0	0	254
06:00	4	475	77	0	16	8	0	1	2	0	0	0	0	583
07:00	3	410	67	2	17	4	0	0	0	0	0	0	0	503
08:00	3	330	61	2	9	6	1	4	2	0	0	0	0	418
09:00	5	243	41	1	11	10	0	1	1	0	0	0	0	313
10:00	5	197	47	2	12	10	1	1	0	1	0	0	0	276
11:00	4	183	34	0	10	12	0	2	1	0	0	1	0	247
12 PM	5	216	38	2	10	11	0	0	2	0	0	0	0	284
13:00	4	245	44	1	7	5	0	2	0	0	0	0	0	308
14:00	2	256	42	0	10	8	0	2	1	0	0	0	0	321
15:00	4	303	69	3	18	5	0	0	0	0	0	0	0	402
16:00	2	341	69	1	17	7	0	1	1	0	0	0	0	439
17:00	2	346	53	0	12	2	0	0	2	0	0	0	0	417
18:00	3	251	38	0	6	2	0	0	1	0	0	0	0	301
19:00	1	141	21	0	6	3	0	0	0	0	0	0	0	172
20:00	4	119	17	1	1	13	0	0	0	0	0	0	0	155
21:00	4	112	15	1	6	9	0	1	3	0	0	0	0	151
22:00	5	79	7	0	4	14	0	0	2	0	0	0	0	111
23:00	3	53	2	0	3	10	0	0	0	0	0	0	0	71
Total	85	4728	824	17	194	183	2	17	25	1	0	1	0	6077
Percent	1.4%	77.8%	13.6%	0.3%	3.2%	3.0%	0.0%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	02:00	06:00	06:00	07:00	07:00	05:00	08:00	08:00	02:00	10:00		11:00		06:00
Vol.	5	475	77	2	17	12	1	4	3	1		1		583
PM Peak	12:00	17:00	15:00	15:00	15:00	22:00		13:00	21:00					16:00
Vol.	5	346	69	3	18	14		2	3					439
Grand Total	85	4728	824	17	194	183	2	17	25	1	0	1	0	6077
Percent	1.4%	77.8%	13.6%	0.3%	3.2%	3.0%	0.0%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

City of Moreno Valley
 Redlands Boulevard
 B/ State Route 60 Eastbound - Fir Avenue
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: 951-268-6268
 email: counts@countsunlimited.com

MRV018C
 Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	4	54	4	0	1	4	0	0	1	0	0	0	0	68
01:00	4	24	1	0	1	4	0	0	0	0	0	0	0	34
02:00	9	14	3	0	0	9	0	0	11	0	0	0	0	46
03:00	8	20	3	3	3	8	0	0	4	0	0	0	0	49
04:00	6	33	7	0	2	6	0	0	2	0	0	0	0	56
05:00	0	104	32	0	2	1	0	0	0	0	0	0	0	139
06:00	6	190	36	1	9	5	0	2	1	0	0	1	0	251
07:00	3	282	47	1	10	4	0	3	0	0	0	0	0	350
08:00	2	187	50	1	9	3	0	1	0	0	0	0	0	253
09:00	1	100	39	1	17	2	0	3	0	0	0	0	0	163
10:00	1	107	36	0	13	4	0	2	0	0	0	0	0	163
11:00	1	123	37	1	14	3	0	2	1	0	0	0	0	182
12 PM	2	165	38	3	20	3	0	0	0	0	0	0	0	231
13:00	2	162	51	0	16	3	0	1	1	0	0	0	0	236
14:00	5	196	77	1	24	4	0	3	0	0	0	0	0	310
15:00	2	281	95	0	26	1	0	0	0	0	0	0	0	405
16:00	5	358	95	2	29	5	0	1	2	0	0	0	0	497
17:00	3	393	81	0	25	2	0	0	1	0	0	0	0	505
18:00	2	368	66	0	13	0	0	2	1	0	0	0	0	452
19:00	2	209	46	0	17	1	0	0	1	0	0	0	0	276
20:00	1	163	32	1	8	1	0	0	1	0	0	0	0	207
21:00	4	143	19	0	7	3	0	0	0	0	0	0	0	176
22:00	6	94	13	0	8	6	0	0	0	0	0	0	0	127
23:00	1	75	16	0	0	1	0	0	0	0	0	0	0	93
Total	80	3845	924	15	274	83	0	20	27	0	0	1	0	5269
Percent	1.5%	73.0%	17.5%	0.3%	5.2%	1.6%	0.0%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	02:00	07:00	08:00	03:00	09:00	02:00		07:00	02:00			06:00		07:00
Vol.	9	282	50	3	17	9		3	11			1		350
PM Peak	22:00	17:00	15:00	12:00	16:00	22:00		14:00	16:00					17:00
Vol.	6	393	95	3	29	6		3	2					505
Grand Total	80	3845	924	15	274	83	0	20	27	0	0	1	0	5269
Percent	1.5%	73.0%	17.5%	0.3%	5.2%	1.6%	0.0%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

City of Moreno Valley
 Redlands Boulevard
 B/ State Route 60 Eastbound - Fir Avenue
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: 951-268-6268
 email: counts@countsunlimited.com

MRV018C
 Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	7	77	5	0	1	12	0	0	2	0	0	0	0	104
01:00	5	52	4	0	1	6	0	0	0	0	0	0	0	68
02:00	14	44	5	0	0	20	0	0	14	0	0	0	0	97
03:00	12	82	18	3	6	11	0	0	4	0	0	0	0	136
04:00	10	132	31	1	7	14	0	0	4	0	0	0	0	199
05:00	5	290	69	0	13	13	0	2	1	0	0	0	0	393
06:00	10	665	113	1	25	13	0	3	3	0	0	1	0	834
07:00	6	692	114	3	27	8	0	3	0	0	0	0	0	853
08:00	5	517	111	3	18	9	1	5	2	0	0	0	0	671
09:00	6	343	80	2	28	12	0	4	1	0	0	0	0	476
10:00	6	304	83	2	25	14	1	3	0	1	0	0	0	439
11:00	5	306	71	1	24	15	0	4	2	0	0	1	0	429
12 PM	7	381	76	5	30	14	0	0	2	0	0	0	0	515
13:00	6	407	95	1	23	8	0	3	1	0	0	0	0	544
14:00	7	452	119	1	34	12	0	5	1	0	0	0	0	631
15:00	6	584	164	3	44	6	0	0	0	0	0	0	0	807
16:00	7	699	164	3	46	12	0	2	3	0	0	0	0	936
17:00	5	739	134	0	37	4	0	0	3	0	0	0	0	922
18:00	5	619	104	0	19	2	0	2	2	0	0	0	0	753
19:00	3	350	67	0	23	4	0	0	1	0	0	0	0	448
20:00	5	282	49	2	9	14	0	0	1	0	0	0	0	362
21:00	8	255	34	1	13	12	0	1	3	0	0	0	0	327
22:00	11	173	20	0	12	20	0	0	2	0	0	0	0	238
23:00	4	128	18	0	3	11	0	0	0	0	0	0	0	164
Total	165	8573	1748	32	468	266	2	37	52	1	0	2	0	11346
Percent	1.5%	75.6%	15.4%	0.3%	4.1%	2.3%	0.0%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	02:00	07:00	07:00	03:00	09:00	02:00	08:00	08:00	02:00	10:00		06:00		07:00
Vol.	14	692	114	3	28	20	1	5	14	1		1		853
PM Peak	22:00	17:00	15:00	12:00	16:00	22:00		14:00	16:00					16:00
Vol.	11	739	164	5	46	20		5	3					936
Grand Total	165	8573	1748	32	468	266	2	37	52	1	0	2	0	11346
Percent	1.5%	75.6%	15.4%	0.3%	4.1%	2.3%	0.0%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Moreno Beach Drive
 B/ State Route 60 Ramps
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV015
 Site Code: 999-19736

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	0	43	6	0	1	0	0	0	1	0	0	0	0	51
01:00	0	33	7	0	2	0	0	0	0	0	0	0	0	42
02:00	0	32	6	0	3	0	0	0	1	0	0	0	0	42
03:00	0	72	16	1	4	0	0	0	1	0	0	0	0	94
04:00	0	132	36	0	9	1	0	1	2	0	0	0	0	181
05:00	3	196	43	0	18	2	0	0	7	0	0	0	0	269
06:00	4	344	67	0	20	1	0	1	0	0	0	0	0	437
07:00	1	392	80	3	17	0	0	3	6	0	0	0	0	502
08:00	5	368	71	1	20	2	0	1	7	0	0	0	0	475
09:00	2	282	84	1	16	2	0	2	1	0	0	0	1	391
10:00	3	315	86	3	16	2	0	5	5	0	0	0	0	435
11:00	2	328	83	2	22	4	0	2	6	0	0	0	0	449
12 PM	7	359	108	1	29	2	0	3	9	0	0	0	0	518
13:00	8	337	96	3	27	1	0	3	3	0	0	0	0	478
14:00	4	412	122	3	35	0	0	7	7	0	0	0	0	590
15:00	4	358	102	1	24	1	0	4	4	0	0	0	0	498
16:00	1	371	102	2	28	1	0	2	1	1	0	0	0	509
17:00	3	455	92	1	22	2	0	5	5	0	0	0	0	585
18:00	3	411	104	1	22	0	0	8	4	0	0	0	1	554
19:00	1	358	77	0	10	1	0	1	4	0	0	0	0	452
20:00	3	260	52	0	9	1	0	0	0	0	0	0	0	325
21:00	1	228	45	0	10	1	0	1	2	0	0	0	0	288
22:00	1	158	31	0	7	0	0	0	0	0	0	0	0	197
23:00	0	98	14	1	2	0	0	2	1	0	0	0	0	118
Total	56	6342	1530	24	373	24	0	51	77	1	0	0	2	8480
Percent	0.7%	74.8%	18.0%	0.3%	4.4%	0.3%	0.0%	0.6%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	10:00	07:00	11:00	11:00		10:00	05:00				09:00	07:00
Vol.	5	392	86	3	22	4		5	7				1	502
PM Peak	13:00	17:00	14:00	13:00	14:00	12:00		18:00	12:00	16:00			18:00	14:00
Vol.	8	455	122	3	35	2		8	9	1			1	590
Grand Total	56	6342	1530	24	373	24	0	51	77	1	0	0	2	8480
Percent	0.7%	74.8%	18.0%	0.3%	4.4%	0.3%	0.0%	0.6%	0.9%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Moreno Beach Drive
 B/ State Route 60 Ramps
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV015
 Site Code: 999-19736

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	0	13	1	0	0	0	0	0	0	0	0	0	0	14
01:00	0	6	1	0	3	0	0	0	0	0	0	0	0	10
02:00	0	8	3	0	2	0	0	0	0	0	0	0	0	13
03:00	0	8	3	1	2	0	0	0	0	0	0	0	0	14
04:00	1	20	3	0	2	0	0	0	0	0	0	0	0	26
05:00	0	36	19	2	3	0	0	0	0	0	0	0	0	60
06:00	2	65	21	1	11	2	0	2	0	0	0	0	0	104
07:00	1	194	53	1	15	0	1	0	1	0	0	0	0	266
08:00	1	189	53	1	6	3	0	1	0	0	0	0	0	254
09:00	1	131	34	2	8	1	0	2	1	0	0	0	0	180
10:00	1	114	36	1	11	1	0	2	1	0	0	0	0	167
11:00	0	136	39	1	9	2	1	0	0	0	0	0	0	188
12 PM	4	118	38	2	17	3	0	3	1	0	0	0	0	186
13:00	5	131	45	1	23	1	0	1	0	0	0	0	0	207
14:00	1	145	61	1	9	2	0	1	0	0	0	0	0	220
15:00	7	201	67	3	18	4	0	2	0	0	0	0	0	302
16:00	7	210	52	1	14	1	0	1	0	0	0	0	0	286
17:00	3	217	61	1	13	5	0	0	0	0	0	0	0	300
18:00	1	183	64	0	11	5	0	0	0	0	1	0	0	265
19:00	1	123	26	0	4	1	0	0	0	0	0	0	0	155
20:00	3	100	23	2	7	1	0	0	0	0	0	0	0	136
21:00	1	96	16	0	6	0	0	0	0	0	0	0	0	119
22:00	0	49	8	0	3	1	0	0	0	0	0	0	0	61
23:00	0	36	4	0	0	0	0	0	0	0	0	0	0	40
Total	40	2529	731	21	197	33	2	15	4	0	1	0	0	3573
Percent	1.1%	70.8%	20.5%	0.6%	5.5%	0.9%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	05:00	07:00	08:00	07:00	06:00	07:00					07:00
Vol.	2	194	53	2	15	3	1	2	1					266
PM Peak	15:00	17:00	15:00	15:00	13:00	17:00		12:00	12:00		18:00			15:00
Vol.	7	217	67	3	23	5		3	1		1			302
Grand Total	40	2529	731	21	197	33	2	15	4	0	1	0	0	3573
Percent	1.1%	70.8%	20.5%	0.6%	5.5%	0.9%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Moreno Beach Drive
 B/ State Route 60 Ramps
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV015
 Site Code: 999-19736

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	0	56	7	0	1	0	0	0	1	0	0	0	0	65
01:00	0	39	8	0	5	0	0	0	0	0	0	0	0	52
02:00	0	40	9	0	5	0	0	0	1	0	0	0	0	55
03:00	0	80	19	2	6	0	0	0	1	0	0	0	0	108
04:00	1	152	39	0	11	1	0	1	2	0	0	0	0	207
05:00	3	232	62	2	21	2	0	0	7	0	0	0	0	329
06:00	6	409	88	1	31	3	0	3	0	0	0	0	0	541
07:00	2	586	133	4	32	0	1	3	7	0	0	0	0	768
08:00	6	557	124	2	26	5	0	2	7	0	0	0	0	729
09:00	3	413	118	3	24	3	0	4	2	0	0	0	1	571
10:00	4	429	122	4	27	3	0	7	6	0	0	0	0	602
11:00	2	464	122	3	31	6	1	2	6	0	0	0	0	637
12 PM	11	477	146	3	46	5	0	6	10	0	0	0	0	704
13:00	13	468	141	4	50	2	0	4	3	0	0	0	0	685
14:00	5	557	183	4	44	2	0	8	7	0	0	0	0	810
15:00	11	559	169	4	42	5	0	6	4	0	0	0	0	800
16:00	8	581	154	3	42	2	0	3	1	1	0	0	0	795
17:00	6	672	153	2	35	7	0	5	5	0	0	0	0	885
18:00	4	594	168	1	33	5	0	8	4	0	1	0	1	819
19:00	2	481	103	0	14	2	0	1	4	0	0	0	0	607
20:00	6	360	75	2	16	2	0	0	0	0	0	0	0	461
21:00	2	324	61	0	16	1	0	1	2	0	0	0	0	407
22:00	1	207	39	0	10	1	0	0	0	0	0	0	0	258
23:00	0	134	18	1	2	0	0	2	1	0	0	0	0	158
Total	96	8871	2261	45	570	57	2	66	81	1	1	0	2	12053
Percent	0.8%	73.6%	18.8%	0.4%	4.7%	0.5%	0.0%	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	07:00	11:00	07:00	10:00	05:00				09:00	07:00
Vol.	6	586	133	4	32	6	1	7	7				1	768
PM Peak	13:00	17:00	14:00	13:00	13:00	17:00		14:00	12:00	16:00	18:00		18:00	17:00
Vol.	13	672	183	4	50	7		8	10	1	1		1	885
Grand Total	96	8871	2261	45	570	57	2	66	81	1	1	0	2	12053
Percent	0.8%	73.6%	18.8%	0.4%	4.7%	0.5%	0.0%	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

PO Box 1178
 Corona, CA 92878
 Phone: 951-268-6268
 email: counts@countsunlimited.com

City of Moreno Valley
 Moreno Beach Drive
 B/ State Route 60 Eastbound - Eucalyptus Avenue
 24 Hour Directional Classification Count

MRV021
 Site Code: 003-18027B

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/18/18	1	93	14	2	6	2	0	0	0	0	0	0	0	118
01:00	0	66	8	1	2	1	0	0	0	0	0	0	0	78
02:00	0	48	9	3	3	2	0	0	0	0	0	0	0	65
03:00	1	47	8	6	4	0	0	0	0	0	0	0	0	66
04:00	0	63	8	3	7	3	0	2	0	0	0	0	0	86
05:00	0	81	30	7	7	2	0	0	2	0	0	0	0	129
06:00	4	195	53	18	26	2	1	4	0	0	0	0	0	303
07:00	8	435	90	23	32	5	0	4	0	0	0	0	0	597
08:00	6	437	107	34	23	10	1	4	0	0	0	0	0	622
09:00	4	302	95	41	26	7	0	2	1	0	0	0	0	478
10:00	3	316	100	54	31	4	1	1	0	2	0	0	0	512
11:00	5	374	105	51	39	7	0	3	0	0	0	0	0	584
12 PM	6	421	92	52	39	15	0	1	0	0	0	0	0	626
13:00	6	447	113	62	30	12	1	0	2	0	0	0	0	673
14:00	6	457	112	52	42	6	0	3	0	0	0	0	1	679
15:00	9	573	128	73	48	11	0	1	0	0	0	0	1	844
16:00	9	536	129	67	53	10	0	0	1	0	0	0	0	805
17:00	9	602	131	97	39	16	0	2	1	0	0	0	0	897
18:00	8	563	116	123	42	13	0	1	0	0	0	0	0	866
19:00	9	459	105	90	23	14	1	0	2	0	0	0	0	703
20:00	8	414	76	42	31	4	0	1	0	0	0	0	0	576
21:00	5	346	45	37	20	6	0	1	0	0	0	0	0	460
22:00	4	228	40	30	11	3	0	0	0	0	0	0	0	316
23:00	1	132	26	2	4	1	0	0	0	0	0	0	0	166
Total	112	7635	1740	970	588	156	5	30	9	2	0	0	2	11249
Percent	1.0%	67.9%	15.5%	8.6%	5.2%	1.4%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	10:00	11:00	08:00	06:00	06:00	05:00	10:00				08:00
Vol.	8	437	107	54	39	10	1	4	2	2				622
PM Peak	15:00	17:00	17:00	18:00	16:00	17:00	13:00	14:00	13:00				14:00	17:00
Vol.	9	602	131	123	53	16	1	3	2				1	897
Grand Total	112	7635	1740	970	588	156	5	30	9	2	0	0	2	11249
Percent	1.0%	67.9%	15.5%	8.6%	5.2%	1.4%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

PO Box 1178
 Corona, CA 92878
 Phone: 951-268-6268
 email: counts@countsunlimited.com

City of Moreno Valley
 Moreno Beach Drive
 B/ State Route 60 Eastbound - Eucalyptus Avenue
 24 Hour Directional Classification Count

MRV021
 Site Code: 003-18027B

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/18/18	3	69	14	0	5	2	0	0	0	0	0	0	0	93
01:00	3	49	12	0	3	0	0	1	1	0	0	0	0	69
02:00	3	47	8	0	5	3	0	0	0	0	0	0	0	66
03:00	3	34	16	0	4	3	0	0	0	0	0	0	0	60
04:00	3	67	16	1	17	0	0	1	0	0	0	0	0	105
05:00	3	76	41	2	25	4	0	3	0	0	0	0	0	154
06:00	2	216	87	2	48	3	0	9	2	0	0	0	0	369
07:00	4	374	121	5	49	1	0	2	0	0	0	0	0	556
08:00	6	375	146	4	42	0	0	5	0	0	0	0	0	578
09:00	5	264	110	5	38	3	0	3	1	0	0	0	0	429
10:00	10	321	130	8	50	3	0	2	2	0	0	0	0	526
11:00	11	343	134	5	64	6	0	4	1	0	0	0	0	568
12 PM	11	377	132	1	50	1	0	3	1	0	0	0	0	576
13:00	14	405	137	3	56	6	0	3	3	0	0	0	0	627
14:00	8	416	156	4	46	7	0	3	0	0	0	0	0	640
15:00	12	503	164	4	74	2	0	1	0	1	0	0	0	761
16:00	4	500	186	2	64	3	0	5	1	0	0	0	0	765
17:00	4	563	181	3	64	2	0	2	2	0	0	0	0	821
18:00	11	533	154	2	49	7	0	6	1	0	0	0	0	763
19:00	7	459	109	3	38	4	0	2	0	0	0	0	0	622
20:00	5	386	93	0	28	1	0	3	0	0	0	0	0	516
21:00	3	275	72	0	23	3	0	2	0	0	0	0	0	378
22:00	3	221	48	0	7	1	0	1	1	0	0	0	0	282
23:00	1	138	33	0	8	2	0	0	0	0	0	0	0	182
Total	139	7011	2300	54	857	67	0	61	16	1	0	0	0	10506
Percent	1.3%	66.7%	21.9%	0.5%	8.2%	0.6%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	10:00	11:00	11:00		06:00	06:00					08:00
Vol.	11	375	146	8	64	6		9	2					578
PM Peak	13:00	17:00	16:00	14:00	15:00	14:00		18:00	13:00	15:00				17:00
Vol.	14	563	186	4	74	7		6	3	1				821
Grand Total	139	7011	2300	54	857	67	0	61	16	1	0	0	0	10506
Percent	1.3%	66.7%	21.9%	0.5%	8.2%	0.6%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

City of Moreno Valley
 Moreno Beach Drive
 B/ State Route 60 Eastbound - Eucalyptus Avenue
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: 951-268-6268
 email: counts@countsunlimited.com

MRV021
 Site Code: 003-18027B

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/18/18	4	162	28	2	11	4	0	0	0	0	0	0	0	211
01:00	3	115	20	1	5	1	0	1	1	0	0	0	0	147
02:00	3	95	17	3	8	5	0	0	0	0	0	0	0	131
03:00	4	81	24	6	8	3	0	0	0	0	0	0	0	126
04:00	3	130	24	4	24	3	0	3	0	0	0	0	0	191
05:00	3	157	71	9	32	6	0	3	2	0	0	0	0	283
06:00	6	411	140	20	74	5	1	13	2	0	0	0	0	672
07:00	12	809	211	28	81	6	0	6	0	0	0	0	0	1153
08:00	12	812	253	38	65	10	1	9	0	0	0	0	0	1200
09:00	9	566	205	46	64	10	0	5	2	0	0	0	0	907
10:00	13	637	230	62	81	7	1	3	2	2	0	0	0	1038
11:00	16	717	239	56	103	13	0	7	1	0	0	0	0	1152
12 PM	17	798	224	53	89	16	0	4	1	0	0	0	0	1202
13:00	20	852	250	65	86	18	1	3	5	0	0	0	0	1300
14:00	14	873	268	56	88	13	0	6	0	0	0	0	1	1319
15:00	21	1076	292	77	122	13	0	2	0	1	0	0	1	1605
16:00	13	1036	315	69	117	13	0	5	2	0	0	0	0	1570
17:00	13	1165	312	100	103	18	0	4	3	0	0	0	0	1718
18:00	19	1096	270	125	91	20	0	7	1	0	0	0	0	1629
19:00	16	918	214	93	61	18	1	2	2	0	0	0	0	1325
20:00	13	800	169	42	59	5	0	4	0	0	0	0	0	1092
21:00	8	621	117	37	43	9	0	3	0	0	0	0	0	838
22:00	7	449	88	30	18	4	0	1	1	0	0	0	0	598
23:00	2	270	59	2	12	3	0	0	0	0	0	0	0	348
Total	251	14646	4040	1024	1445	223	5	91	25	3	0	0	2	21755
Percent	1.2%	67.3%	18.6%	4.7%	6.6%	1.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	10:00	11:00	11:00	06:00	06:00	05:00	10:00				08:00
Vol.	16	812	253	62	103	13	1	13	2	2				1200
PM Peak	15:00	17:00	16:00	18:00	15:00	18:00	13:00	18:00	13:00	15:00			14:00	17:00
Vol.	21	1165	315	125	122	20	1	7	5	1			1	1718
Grand Total	251	14646	4040	1024	1445	223	5	91	25	3	0	0	2	21755
Percent	1.2%	67.3%	18.6%	4.7%	6.6%	1.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Eucalyptus Avenue
 B/ Moreno Beach Drive - Auto Mall Drive
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV025
 Site Code: 999-19736

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/31/19	0	6	0	0	0	0	0	0	0	0	0	0	0	6
01:00	0	5	0	0	0	0	0	1	1	0	0	0	0	7
02:00	0	5	0	1	0	0	0	0	0	0	0	0	0	6
03:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
04:00	0	18	2	0	0	1	0	0	0	0	0	0	0	21
05:00	0	67	9	1	2	0	0	0	1	0	0	0	0	80
06:00	0	59	11	0	0	0	0	0	5	0	0	0	0	75
07:00	0	69	11	1	1	0	0	1	4	0	0	0	0	87
08:00	0	90	13	0	4	2	0	1	4	0	0	0	0	114
09:00	0	80	9	3	10	0	0	0	4	0	0	0	0	106
10:00	1	81	21	0	6	0	0	1	6	0	0	0	0	116
11:00	3	65	18	1	9	1	0	2	5	0	0	0	0	104
12 PM	3	101	20	1	10	2	0	1	3	1	0	0	0	142
13:00	1	79	19	0	6	0	0	1	2	0	0	0	0	108
14:00	0	66	13	0	7	0	0	0	2	0	0	0	0	88
15:00	0	56	17	0	7	0	0	2	0	0	0	0	0	82
16:00	0	62	11	1	5	1	0	2	0	0	0	0	0	82
17:00	1	50	7	0	0	0	0	0	2	0	0	0	0	60
18:00	0	27	10	0	2	1	0	0	0	0	0	0	0	40
19:00	1	16	2	0	3	0	0	0	0	0	0	0	0	22
20:00	0	16	6	0	2	0	0	0	0	0	0	0	0	24
21:00	0	19	4	0	1	0	0	1	0	0	0	0	0	25
22:00	1	12	0	0	1	0	0	0	0	0	0	0	0	14
23:00	0	12	3	0	0	0	0	0	1	0	0	0	0	16
Total	11	1063	207	9	77	8	0	13	40	1	0	0	0	1429
Percent	0.8%	74.4%	14.5%	0.6%	5.4%	0.6%	0.0%	0.9%	2.8%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	10:00	09:00	09:00	08:00		11:00	10:00					10:00
Vol.	3	90	21	3	10	2		2	6					116
PM Peak	12:00	12:00	12:00	12:00	12:00	12:00		15:00	12:00	12:00				12:00
Vol.	3	101	20	1	10	2		2	3	1				142
Grand Total	11	1063	207	9	77	8	0	13	40	1	0	0	0	1429
Percent	0.8%	74.4%	14.5%	0.6%	5.4%	0.6%	0.0%	0.9%	2.8%	0.1%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Eucalyptus Avenue
 B/ Moreno Beach Drive - Auto Mall Drive
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV025
 Site Code: 999-19736

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/31/19	0	3	4	0	0	0	0	0	0	0	0	0	0	7
01:00	0	1	2	0	0	0	0	1	1	0	0	0	0	5
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	2	1	0	0	0	0	0	0	0	0	0	7
04:00	0	8	5	1	1	0	0	1	0	0	0	0	0	16
05:00	0	10	0	1	5	1	0	0	2	0	0	0	0	19
06:00	0	35	8	1	8	0	0	1	5	0	0	0	0	58
07:00	0	46	8	1	7	0	0	1	4	0	0	0	0	67
08:00	0	48	22	0	12	0	0	0	5	0	0	0	0	87
09:00	0	59	23	3	7	4	0	0	2	0	0	0	0	98
10:00	0	97	29	2	16	0	0	1	1	0	0	0	0	146
11:00	0	71	45	0	13	1	0	1	4	0	0	0	0	135
12 PM	0	99	42	2	15	4	1	1	7	0	0	0	0	171
13:00	1	75	45	1	20	1	0	0	2	0	0	0	0	145
14:00	1	95	51	3	21	0	0	0	4	0	0	0	0	175
15:00	0	75	55	0	19	0	0	2	2	0	0	0	0	153
16:00	0	77	49	1	15	1	0	0	0	0	0	0	0	143
17:00	0	77	60	1	19	0	0	2	1	0	0	0	0	160
18:00	0	49	39	0	5	0	0	0	0	0	0	0	0	93
19:00	0	28	16	1	8	0	0	1	1	0	0	0	0	55
20:00	0	14	13	1	2	0	0	0	1	0	0	0	0	31
21:00	0	19	19	0	3	0	0	1	1	0	0	0	0	43
22:00	0	14	2	0	1	0	0	0	0	0	0	0	0	17
23:00	0	8	4	0	2	0	0	0	0	0	0	0	0	14
Total	2	1015	544	20	199	12	1	13	43	0	0	0	0	1849
Percent	0.1%	54.9%	29.4%	1.1%	10.8%	0.6%	0.1%	0.7%	2.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak		10:00	11:00	09:00	10:00	09:00		01:00	06:00					10:00
Vol.		97	45	3	16	4		1	5					146
PM Peak	13:00	12:00	17:00	14:00	14:00	12:00	12:00	15:00	12:00					14:00
Vol.	1	99	60	3	21	4	1	2	7					175
Grand Total	2	1015	544	20	199	12	1	13	43	0	0	0	0	1849
Percent	0.1%	54.9%	29.4%	1.1%	10.8%	0.6%	0.1%	0.7%	2.3%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Eucalyptus Avenue
 B/ Moreno Beach Drive - Auto Mall Drive
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV025
 Site Code: 999-19736

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/31/19	0	9	4	0	0	0	0	0	0	0	0	0	0	13
01:00	0	6	2	0	0	0	0	2	2	0	0	0	0	12
02:00	0	8	1	1	0	0	0	0	0	0	0	0	0	10
03:00	0	6	3	1	1	0	0	0	0	0	0	0	0	11
04:00	0	26	7	1	1	1	0	1	0	0	0	0	0	37
05:00	0	77	9	2	7	1	0	0	3	0	0	0	0	99
06:00	0	94	19	1	8	0	0	1	10	0	0	0	0	133
07:00	0	115	19	2	8	0	0	2	8	0	0	0	0	154
08:00	0	138	35	0	16	2	0	1	9	0	0	0	0	201
09:00	0	139	32	6	17	4	0	0	6	0	0	0	0	204
10:00	1	178	50	2	22	0	0	2	7	0	0	0	0	262
11:00	3	136	63	1	22	2	0	3	9	0	0	0	0	239
12 PM	3	200	62	3	25	6	1	2	10	1	0	0	0	313
13:00	2	154	64	1	26	1	0	1	4	0	0	0	0	253
14:00	1	161	64	3	28	0	0	0	6	0	0	0	0	263
15:00	0	131	72	0	26	0	0	4	2	0	0	0	0	235
16:00	0	139	60	2	20	2	0	2	0	0	0	0	0	225
17:00	1	127	67	1	19	0	0	2	3	0	0	0	0	220
18:00	0	76	49	0	7	1	0	0	0	0	0	0	0	133
19:00	1	44	18	1	11	0	0	1	1	0	0	0	0	77
20:00	0	30	19	1	4	0	0	0	1	0	0	0	0	55
21:00	0	38	23	0	4	0	0	2	1	0	0	0	0	68
22:00	1	26	2	0	2	0	0	0	0	0	0	0	0	31
23:00	0	20	7	0	2	0	0	0	1	0	0	0	0	30
Total	13	2078	751	29	276	20	1	26	83	1	0	0	0	3278
Percent	0.4%	63.4%	22.9%	0.9%	8.4%	0.6%	0.0%	0.8%	2.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	10:00	11:00	09:00	10:00	09:00		11:00	06:00					10:00
Vol.	3	178	63	6	22	4		3	10					262
PM Peak	12:00	12:00	15:00	12:00	14:00	12:00	12:00	15:00	12:00	12:00				12:00
Vol.	3	200	72	3	28	6	1	4	10	1				313
Grand Total	13	2078	751	29	276	20	1	26	83	1	0	0	0	3278
Percent	0.4%	63.4%	22.9%	0.9%	8.4%	0.6%	0.0%	0.8%	2.5%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Encilia Avenue
 B/ Shubert Street - Redlands Boulevard
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV032
 Site Code: 999-19736

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
05:00	0	8	2	0	2	0	0	0	0	0	0	0	0	12
06:00	0	17	4	0	0	0	0	0	0	0	0	0	0	21
07:00	0	20	1	0	4	0	0	0	0	0	0	0	0	25
08:00	0	10	2	0	0	0	0	0	0	0	0	0	0	12
09:00	0	11	1	0	1	0	0	0	0	0	0	0	0	13
10:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
11:00	0	8	4	0	2	0	0	0	0	0	0	0	0	14
12 PM	0	10	6	0	1	0	0	0	0	0	0	0	0	17
13:00	0	7	6	1	1	0	0	0	0	0	0	0	0	15
14:00	0	9	4	0	0	0	0	0	0	0	0	0	0	13
15:00	0	6	1	0	2	0	0	0	0	0	0	0	0	9
16:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
17:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6
18:00	0	7	6	0	3	0	0	0	0	0	0	0	0	16
19:00	0	7	4	0	0	0	0	0	0	0	0	0	0	11
20:00	0	4	3	0	1	0	0	0	0	0	0	0	0	8
21:00	0	1	3	0	0	0	0	0	1	0	0	0	0	5
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	154	53	1	19	0	0	0	1	0	0	0	0	228
Percent	0.0%	67.5%	23.2%	0.4%	8.3%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	06:00		07:00									07:00
Vol.		20	4		4									25
PM Peak		12:00	12:00	13:00	18:00				21:00					12:00
Vol.		10	6	1	3				1					17
Grand Total	0	154	53	1	19	0	0	0	1	0	0	0	0	228
Percent	0.0%	67.5%	23.2%	0.4%	8.3%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Encilia Avenue
 B/ Shubert Street - Redlands Boulevard
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV032
 Site Code: 999-19736

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
06:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
08:00	0	7	1	0	1	0	0	0	0	0	0	0	0	9
09:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
10:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
11:00	0	9	0	0	2	0	0	0	0	0	0	0	0	11
12 PM	0	6	4	0	2	0	0	0	0	0	0	0	0	12
13:00	0	10	2	0	0	0	0	1	0	0	0	0	0	13
14:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12
15:00	0	9	1	0	2	0	0	0	0	0	0	0	0	12
16:00	0	5	5	0	2	0	0	0	0	0	0	0	0	12
17:00	0	15	5	0	5	0	0	0	0	0	0	0	0	25
18:00	0	14	6	0	2	0	0	0	0	0	0	0	0	22
19:00	0	12	3	0	2	0	0	0	0	0	0	0	0	17
20:00	0	12	5	0	1	0	0	0	0	0	0	0	0	18
21:00	1	9	3	0	1	1	0	0	0	0	0	0	0	15
22:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total	1	154	43	0	21	1	0	1	0	0	0	0	0	221
Percent	0.5%	69.7%	19.5%	0.0%	9.5%	0.5%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		10:00	09:00		11:00									11:00
Vol.		9	3		2									11
PM Peak	21:00	17:00	18:00		17:00	21:00		13:00						17:00
Vol.	1	15	6		5	1		1						25
Grand Total	1	154	43	0	21	1	0	1	0	0	0	0	0	221
Percent	0.5%	69.7%	19.5%	0.0%	9.5%	0.5%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

City of Moreno Valley
 Encilia Avenue
 B/ Shubert Street - Redlands Boulevard
 24 Hour Directional Classification Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

MRV032
 Site Code: 999-19736

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/30/19	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
05:00	0	11	2	0	2	0	0	0	0	0	0	0	0	15
06:00	0	18	4	0	0	0	0	0	0	0	0	0	0	22
07:00	0	27	1	0	4	0	0	0	0	0	0	0	0	32
08:00	0	17	3	0	1	0	0	0	0	0	0	0	0	21
09:00	0	17	4	0	1	0	0	0	0	0	0	0	0	22
10:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
11:00	0	17	4	0	4	0	0	0	0	0	0	0	0	25
12 PM	0	16	10	0	3	0	0	0	0	0	0	0	0	29
13:00	0	17	8	1	1	0	0	1	0	0	0	0	0	28
14:00	0	17	7	0	1	0	0	0	0	0	0	0	0	25
15:00	0	15	2	0	4	0	0	0	0	0	0	0	0	21
16:00	0	10	6	0	3	0	0	0	0	0	0	0	0	19
17:00	0	19	6	0	6	0	0	0	0	0	0	0	0	31
18:00	0	21	12	0	5	0	0	0	0	0	0	0	0	38
19:00	0	19	7	0	2	0	0	0	0	0	0	0	0	28
20:00	0	16	8	0	2	0	0	0	0	0	0	0	0	26
21:00	1	10	6	0	1	1	0	0	1	0	0	0	0	20
22:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
23:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Total	1	308	96	1	40	1	0	1	1	0	0	0	0	449
Percent	0.2%	68.6%	21.4%	0.2%	8.9%	0.2%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	06:00		07:00									07:00
Vol.		27	4		4									32
PM Peak	21:00	18:00	18:00	13:00	17:00	21:00		13:00	21:00					18:00
Vol.	1	21	12	1	6	1		1	1					38
Grand Total	1	308	96	1	40	1	0	1	1	0	0	0	0	449
Percent	0.2%	68.6%	21.4%	0.2%	8.9%	0.2%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	

APPENDIX C: VOLUME DEVELOPMENT WORKSHEETS

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour					Total PCE Volume	
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle			4 Axle
1 . Moreno Beach Dr/SR-60 Westbound Ramps												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	202	4	0	0	6	208	236	3	0	0	5	241
NBR	331	5	1	3	19	350	404	5	2	5	27	431
SBL	79	1	0	0	2	81	36	0	0	0	0	36
SBT	209	3	0	0	5	214	235	2	0	0	3	238
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	79	2	1	0	5	84	83	2	2	1	10	93
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	4	0	0	0	0	4	8	0	0	0	0	8
North Leg												
Approach	288	4	0	0	7	295	271	2	0	0	3	274
Departure	206	4	0	0	6	212	244	3	0	0	5	249
Total	494	8	0	0	13	507	515	5	0	0	8	523
South Leg												
Approach	533	9	1	3	25	558	640	8	2	5	32	672
Departure	288	5	1	0	10	298	318	4	2	1	13	331
Total	821	14	2	3	35	856	958	12	4	6	45	1,003
East Leg												
Approach	83	2	1	0	5	88	91	2	2	1	10	101
Departure	410	6	1	3	21	431	440	5	2	5	27	467
Total	493	8	2	3	26	519	531	7	4	6	37	568
West Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches												
Approach	904	15	2	3	37	941	1,002	12	4	6	45	1,047
Departure	904	15	2	3	37	941	1,002	12	4	6	45	1,047
Total	1,808	30	4	6	74	1,882	2,004	24	8	12	90	2,094

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour					Total PCE Volume	
	Pass. Veh.	Trucks			PCE	Pass. Veh.	Trucks			PCE		
		2 Axle	3 Axle	4 Axle			2 Axle	3 Axle	4 Axle			
2 . Moreno Beach Dr/SR-60 Eastbound Ramps												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	461	13	1	3	31	492	593	8	2	5	31	624
NBR	101	7	0	3	20	121	159	4	0	1	9	168
SBL	11	1	0	0	2	13	8	0	0	0	0	8
SBT	280	5	1	0	10	290	306	5	2	1	15	321
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	42	0	0	0	0	42	63	1	0	0	2	65
EBT	0	1	0	0	2	2	0	1	0	0	2	2
EBR	358	10	0	9	42	400	503	5	1	4	22	525
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	291	6	1	0	12	303	314	5	2	1	15	329
Departure	503	13	1	3	31	534	656	9	2	5	33	689
Total	794	19	2	3	43	837	970	14	4	6	48	1,018
South Leg												
Approach	562	20	1	6	51	613	752	12	2	6	40	792
Departure	638	15	1	9	52	690	809	10	3	5	37	846
Total	1,200	35	2	15	103	1,303	1,561	22	5	11	77	1,638
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	112	9	0	3	24	136	167	5	0	1	11	178
Total	112	9	0	3	24	136	167	5	0	1	11	178
West Leg												
Approach	400	11	0	9	44	444	566	7	1	4	26	592
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	400	11	0	9	44	444	566	7	1	4	26	592
Total Approaches												
Approach	1,253	37	2	15	107	1,360	1,632	24	5	11	81	1,713
Departure	1,253	37	2	15	107	1,360	1,632	24	5	11	81	1,713
Total	2,506	74	4	30	214	2,720	3,264	48	10	22	162	3,426

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
3 . Moreno Beach Dr/Eucalyptus Avenue												
NBL	91	2	0	0	3	94	112	1	0	0	2	114
NBT	373	9	0	2	20	393	310	3	0	1	8	318
NBR	17	0	0	0	0	17	5	0	0	0	0	5
SBL	113	1	0	7	23	136	41	2	1	3	14	55
SBT	373	13	1	1	25	398	527	6	0	1	12	539
SBR	146	1	0	1	5	151	227	3	1	1	10	237
EBL	159	9	1	2	22	181	317	5	1	0	10	327
EBT	61	2	0	0	3	64	36	0	0	1	3	39
EBR	73	4	0	0	6	79	132	2	0	0	3	135
WBL	18	1	0	0	2	20	33	0	0	0	0	33
WBT	33	0	0	0	0	33	55	1	0	0	2	57
WBR	23	3	1	2	13	36	98	4	1	5	23	121
North Leg												
Approach	632	15	1	9	53	685	795	11	2	5	36	831
Departure	555	21	2	6	55	610	725	12	2	6	41	766
Total	1,187	36	3	15	108	1,295	1,520	23	4	11	77	1,597
South Leg												
Approach	481	11	0	2	23	504	427	4	0	1	10	437
Departure	464	18	1	1	33	497	692	8	0	1	15	707
Total	945	29	1	3	56	1,001	1,119	12	0	2	25	1,144
East Leg												
Approach	74	4	1	2	15	89	186	5	1	5	25	211
Departure	191	3	0	7	26	217	82	2	1	4	17	99
Total	265	7	1	9	41	306	268	7	2	9	42	310
West Leg												
Approach	293	15	1	2	31	324	485	7	1	1	16	501
Departure	270	3	0	1	8	278	394	5	1	1	14	408
Total	563	18	1	3	39	602	879	12	2	2	30	909
Total Approaches												
Approach	1,480	45	3	15	122	1,602	1,893	27	4	12	87	1,980
Departure	1,480	45	3	15	122	1,602	1,893	27	4	12	87	1,980
Total	2,960	90	6	30	244	3,204	3,786	54	8	24	174	3,960

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
4 . Auto Mall Dr/Eucalyptus Avenue												
NBL	26	0	0	0	0	26	52	3	0	0	5	57
NBT	2	0	0	0	0	2	5	0	0	0	0	5
NBR	11	0	0	0	0	11	6	0	0	0	0	6
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	1	0	0	0	0	1	5	0	0	0	0	5
SBR	4	0	0	0	0	4	16	0	0	0	0	16
EBL	10	0	0	0	0	10	12	0	0	0	0	12
EBT	62	1	0	5	17	79	45	2	3	4	21	66
EBR	39	0	0	0	0	39	21	4	0	0	6	27
WBL	11	0	0	0	0	11	12	0	0	0	0	12
WBT	57	2	0	4	15	72	77	4	3	2	18	95
WBR	2	0	0	0	0	2	1	0	0	0	0	1
North Leg												
Approach	5	0	0	0	0	5	21	0	0	0	0	21
Departure	14	0	0	0	0	14	18	0	0	0	0	18
Total	19	0	0	0	0	19	39	0	0	0	0	39
South Leg												
Approach	39	0	0	0	0	39	63	3	0	0	5	68
Departure	51	0	0	0	0	51	38	4	0	0	6	44
Total	90	0	0	0	0	90	101	7	0	0	11	112
East Leg												
Approach	70	2	0	4	15	85	90	4	3	2	18	108
Departure	73	1	0	5	17	90	51	2	3	4	21	72
Total	143	3	0	9	32	175	141	6	6	6	39	180
West Leg												
Approach	111	1	0	5	17	128	78	6	3	4	27	105
Departure	87	2	0	4	15	102	145	7	3	2	23	168
Total	198	3	0	9	32	230	223	13	6	6	50	273
Total Approaches												
Approach	225	3	0	9	32	257	252	13	6	6	50	302
Departure	225	3	0	9	32	257	252	13	6	6	50	302
Total	450	6	0	18	64	514	504	26	12	12	100	604

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour					Total PCE Volume	
	Pass. Veh.	Trucks			PCE	Pass. Veh.	Trucks			PCE		
		2 Axle	3 Axle	4 Axle			2 Axle	3 Axle	4 Axle			
5 . Dwy 1/Eucalyptus Avenue												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	1	0	0	2	2	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	1	0	0	2	2	0	0	0	0	0	0
EBT	27	1	0	2	8	35	35	0	1	1	5	40
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	48	2	0	1	6	54	49	2	1	1	8	57
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	1	0	0	2	2	0	0	0	0	0	0
Departure	0	1	0	0	2	2	0	0	0	0	0	0
Total	0	2	0	0	4	4	0	0	0	0	0	0
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	48	2	0	1	6	54	49	2	1	1	8	57
Departure	27	2	0	2	10	37	35	0	1	1	5	40
Total	75	4	0	3	16	91	84	2	2	2	13	97
West Leg												
Approach	27	2	0	2	10	37	35	0	1	1	5	40
Departure	48	2	0	1	6	54	49	2	1	1	8	57
Total	75	4	0	3	16	91	84	2	2	2	13	97
Total Approaches												
Approach	75	5	0	3	18	93	84	2	2	2	13	97
Departure	75	5	0	3	18	93	84	2	2	2	13	97
Total	150	10	0	6	36	186	168	4	4	4	26	194

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
6 . Dwy 2-Essen Ln/Encilia Avenue												
NBL	1	0	0	0	0	1	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	5	0	0	0	0	5	3	0	0	0	0	3
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	1	0	0	0	0	1	0	0	0	0	0	0
EBR	2	0	0	0	0	2	0	0	0	0	0	0
WBL	4	0	0	0	0	4	9	1	0	0	2	11
WBT	2	0	0	0	0	2	1	0	0	0	0	1
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	6	0	0	0	0	6	3	0	0	0	0	3
Departure	6	0	0	0	0	6	9	1	0	0	2	11
Total	12	0	0	0	0	12	12	1	0	0	2	14
East Leg												
Approach	6	0	0	0	0	6	10	1	0	0	2	12
Departure	6	0	0	0	0	6	3	0	0	0	0	3
Total	12	0	0	0	0	12	13	1	0	0	2	15
West Leg												
Approach	3	0	0	0	0	3	0	0	0	0	0	0
Departure	3	0	0	0	0	3	1	0	0	0	0	1
Total	6	0	0	0	0	6	1	0	0	0	0	1
Total Approaches												
Approach	15	0	0	0	0	15	13	1	0	0	2	15
Departure	15	0	0	0	0	15	13	1	0	0	2	15
Total	30	0	0	0	0	30	26	2	0	0	4	30

Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					Total PCE Volume	PM Peak Hour					Total PCE Volume
	Pass. Veh.	Trucks			PCE		Pass. Veh.	Trucks			PCE	
		2 Axle	3 Axle	4 Axle				2 Axle	3 Axle	4 Axle		
8 . Dwy 4-Shubert Street/Encilia Avenue												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	5	0	0	0	0	5	2	0	0	0	0	2
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	19	1	0	0	2	21	6	0	0	0	0	6
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	1	0	0	0	0	1	3	0	0	0	0	3
WBT	5	0	0	0	0	5	15	2	0	0	3	18
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	5	0	0	0	0	5	2	0	0	0	0	2
Departure	1	0	0	0	0	1	3	0	0	0	0	3
Total	6	0	0	0	0	6	5	0	0	0	0	5
East Leg												
Approach	6	0	0	0	0	6	18	2	0	0	3	21
Departure	24	1	0	0	2	26	8	0	0	0	0	8
Total	30	1	0	0	2	32	26	2	0	0	3	29
West Leg												
Approach	19	1	0	0	2	21	6	0	0	0	0	6
Departure	5	0	0	0	0	5	15	2	0	0	3	18
Total	24	1	0	0	2	26	21	2	0	0	3	24
Total Approaches												
Approach	30	1	0	0	2	32	26	2	0	0	3	29
Departure	30	1	0	0	2	32	26	2	0	0	3	29
Total	60	2	0	0	4	64	52	4	0	0	6	58

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
10 . Redlands Boulevard/SR-60 Westbound Ramps												
NBL	2	0	0	1	3	5	3	0	0	0	0	3
NBT	371	6	0	5	24	395	650	14	1	3	32	682
NBR	131	5	0	5	23	154	92	2	0	1	6	98
SBL	345	3	0	2	11	356	359	9	0	2	20	379
SBT	312	6	1	2	17	329	411	7	2	1	18	429
SBR	2	0	0	0	0	2	0	0	0	0	0	0
EBL	2	0	0	0	0	2	0	0	0	0	0	0
EBT	1	0	0	0	0	1	1	1	0	1	5	6
EBR	3	0	0	0	0	3	1	0	0	0	0	1
WBL	36	1	0	0	2	38	21	1	0	0	2	23
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	26	1	0	1	5	31	20	0	0	0	0	20
North Leg												
Approach	659	9	1	4	28	687	770	16	2	3	38	808
Departure	399	7	0	6	29	428	670	14	1	3	32	702
Total	1,058	16	1	10	57	1,115	1,440	30	3	6	70	1,510
South Leg												
Approach	504	11	0	11	50	554	745	16	1	4	38	783
Departure	351	7	1	2	19	370	433	8	2	1	20	453
Total	855	18	1	13	69	924	1,178	24	3	5	58	1,236
East Leg												
Approach	62	2	0	1	7	69	41	1	0	0	2	43
Departure	477	8	0	7	34	511	452	12	0	4	31	483
Total	539	10	0	8	41	580	493	13	0	4	33	526
West Leg												
Approach	6	0	0	0	0	6	2	1	0	1	5	7
Departure	4	0	0	1	3	7	3	0	0	0	0	3
Total	10	0	0	1	3	13	5	1	0	1	5	10
Total Approaches												
Approach	1,231	22	1	16	85	1,316	1,558	34	3	8	83	1,641
Departure	1,231	22	1	16	85	1,316	1,558	34	3	8	83	1,641
Total	2,462	44	2	32	170	2,632	3,116	68	6	16	166	3,282

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour					Total PCE Volume	
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle			4 Axle
11 . Redlands Boulevard/SR-60 Eastbound Ramps												
NBL	58	2	1	2	11	69	67	0	0	1	3	70
NBT	393	6	1	8	35	428	372	4	0	1	9	381
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	329	5	1	0	10	339	386	5	2	0	12	398
SBR	28	0	0	2	6	34	32	0	0	1	3	35
EBL	120	1	0	3	11	131	391	6	1	1	14	405
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	58	1	0	7	23	81	127	2	0	2	9	136
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	357	5	1	2	16	373	418	5	2	1	15	433
Departure	513	7	1	11	46	559	763	10	1	2	23	786
Total	870	12	2	13	62	932	1,181	15	3	3	38	1,219
South Leg												
Approach	451	8	2	10	46	497	439	4	0	2	12	451
Departure	387	6	1	7	33	420	513	7	2	2	21	534
Total	838	14	3	17	79	917	952	11	2	4	33	985
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	178	2	0	10	34	212	518	8	1	3	23	541
Departure	86	2	1	4	17	103	99	0	0	2	6	105
Total	264	4	1	14	51	315	617	8	1	5	29	646
Total Approaches												
Approach	986	15	3	22	96	1,082	1,375	17	3	6	50	1,425
Departure	986	15	3	22	96	1,082	1,375	17	3	6	50	1,425
Total	1,972	30	6	44	192	2,164	2,750	34	6	12	100	2,850

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
12 . Redlands Boulevard/Eucalyptus Avenue												
NBL	13	0	0	0	0	13	13	0	0	0	0	13
NBT	427	7	1	1	16	443	394	4	0	0	6	400
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	332	6	0	1	12	344	482	8	2	2	22	504
SBR	50	0	1	6	20	70	35	2	0	1	6	41
EBL	13	1	1	9	31	44	29	0	0	2	6	35
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	10	1	0	0	2	12	18	1	1	0	4	22
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	16	0	0	0	0	16	25	0	0	0	0	25
North Leg												
Approach	382	6	1	7	32	414	517	10	2	3	28	545
Departure	456	8	2	10	47	503	448	4	0	2	12	460
Total	838	14	3	17	79	917	965	14	2	5	40	1,005
South Leg												
Approach	440	7	1	1	16	456	407	4	0	0	6	413
Departure	342	7	0	1	14	356	500	9	3	2	26	526
Total	782	14	1	2	30	812	907	13	3	2	32	939
East Leg												
Approach	16	0	0	0	0	16	25	0	0	0	0	25
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	16	0	0	0	0	16	25	0	0	0	0	25
West Leg												
Approach	23	2	1	9	33	56	47	1	1	2	10	57
Departure	63	0	1	6	20	83	48	2	0	1	6	54
Total	86	2	2	15	53	139	95	3	1	3	16	111
Total Approaches												
Approach	861	15	3	17	81	942	996	15	3	5	44	1,040
Departure	861	15	3	17	81	942	996	15	3	5	44	1,040
Total	1,722	30	6	34	162	1,884	1,992	30	6	10	88	2,080

**Table C-1: Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	AM Peak Hour					PM Peak Hour					Total PCE Volume	
	Pass. Veh.	Trucks			PCE	Pass. Veh.	Trucks			PCE		
		2 Axle	3 Axle	4 Axle			2 Axle	3 Axle	4 Axle			
15 . Redlands Boulevard/Encilia Avenue												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	420	5	1	1	13	433	396	5	0	0	8	404
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	332	8	0	1	15	347	486	7	3	1	20	506
SBR	5	0	0	0	0	5	14	2	0	0	3	17
EBL	19	2	0	0	3	22	8	0	0	0	0	8
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	2	0	0	0	0	2	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	337	8	0	1	15	352	500	9	3	1	23	523
Departure	439	7	1	1	16	455	404	5	0	0	8	412
Total	776	15	1	2	31	807	904	14	3	1	31	935
South Leg												
Approach	420	5	1	1	13	433	396	5	0	0	8	404
Departure	334	8	0	1	15	349	486	7	3	1	20	506
Total	754	13	1	2	28	782	882	12	3	1	28	910
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	21	2	0	0	3	24	8	0	0	0	0	8
Departure	5	0	0	0	0	5	14	2	0	0	3	17
Total	26	2	0	0	3	29	22	2	0	0	3	25
Total Approaches												
Approach	778	15	1	2	31	809	904	14	3	1	31	935
Departure	778	15	1	2	31	809	904	14	3	1	31	935
Total	1,556	30	2	4	62	1,618	1,808	28	6	2	62	1,870

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
1 . Moreno Beach Dr/SR-60 Westbound Ramps								
NBL	0	0	0	0.00%	0	0	0	0.00%
NBT	202	4	206	1.94%	236	3	239	1.26%
NBR	331	9	340	2.65%	404	12	416	2.88%
SBL	79	1	80	1.25%	36	0	36	0.00%
SBT	209	3	212	1.42%	235	2	237	0.84%
SBR	0	0	0	0.00%	0	0	0	0.00%
EBL	0	0	0	0.00%	0	0	0	0.00%
EBT	0	0	0	0.00%	0	0	0	0.00%
EBR	0	0	0	0.00%	0	0	0	0.00%
WBL	79	3	82	3.66%	83	5	88	5.68%
WBT	0	0	0	0.00%	0	0	0	0.00%
WBR	4	0	4	0.00%	8	0	8	0.00%
North Leg								
Approach	288	4	292	1.4%	271	2	273	0.7%
Departure	206	4	210	1.9%	244	3	247	1.2%
Total	494	8	502	1.6%	515	5	520	1.0%
South Leg								
Approach	533	13	546	2.4%	640	15	655	2.3%
Departure	288	6	294	2.0%	318	7	325	2.2%
Total	821	19	840	2.3%	958	22	980	2.2%
East Leg								
Approach	83	3	86	3.5%	91	5	96	5.2%
Departure	410	10	420	2.4%	440	12	452	2.7%
Total	493	13	506	2.6%	531	17	548	3.1%
West Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
Total Approaches								
Approach	904	20	924		1,002	22	1,024	
Departure	904	20	924		1,002	22	1,024	
Total	1,808	40	1,848	2.2%	2,004	44	2,048	2.1%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
2 . Moreno Beach Dr/SR-60 Eastbound Ramps								
NBL	0	0	0	0.00%	0	0	0	0.00%
NBT	461	17	478	3.56%	593	15	608	2.47%
NBR	101	10	111	9.01%	159	5	164	3.05%
SBL	11	1	12	8.33%	8	0	8	0.00%
SBT	280	6	286	2.10%	306	8	314	2.55%
SBR	0	0	0	0.00%	0	0	0	0.00%
EBL	42	0	42	0.00%	63	1	64	1.56%
EBT	0	1	1	100.00%	0	1	1	100.00%
EBR	358	19	377	5.04%	503	10	513	1.95%
WBL	0	0	0	0.00%	0	0	0	0.00%
WBT	0	0	0	0.00%	0	0	0	0.00%
WBR	0	0	0	0.00%	0	0	0	0.00%
North Leg								
Approach	291	7	298	2.3%	314	8	322	2.5%
Departure	503	17	520	3.3%	656	16	672	2.4%
Total	794	24	818	2.9%	970	24	994	2.4%
South Leg								
Approach	562	27	589	4.6%	752	20	772	2.6%
Departure	638	25	663	3.8%	809	18	827	2.2%
Total	1,200	52	1,252	4.2%	1,561	38	1,599	2.4%
East Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	112	12	124	9.7%	167	6	173	3.5%
Total	112	12	124	9.7%	167	6	173	3.5%
West Leg								
Approach	400	20	420	4.8%	566	12	578	2.1%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	400	20	420	4.8%	566	12	578	2.1%
Total Approaches								
Approach	1,253	54	1,307		1,632	40	1,672	
Departure	1,253	54	1,307		1,632	40	1,672	
Total	2,506	108	2,614	4.1%	3,264	80	3,344	2.4%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
3 . Moreno Beach Dr/Eucalyptus Avenue								
NBL	91	2	93	2.15%	112	1	113	0.88%
NBT	373	11	384	2.86%	310	4	314	1.27%
NBR	17	0	17	0.00%	5	0	5	0.00%
SBL	113	8	121	6.61%	41	6	47	12.77%
SBT	373	15	388	3.87%	527	7	534	1.31%
SBR	146	2	148	1.35%	227	5	232	2.16%
EBL	159	12	171	7.02%	317	6	323	1.86%
EBT	61	2	63	3.17%	36	1	37	2.70%
EBR	73	4	77	5.19%	132	2	134	1.49%
WBL	18	1	19	5.26%	33	0	33	0.00%
WBT	33	0	33	0.00%	55	1	56	1.79%
WBR	23	6	29	20.69%	98	10	108	9.26%
North Leg								
Approach	632	25	657	3.8%	795	18	813	2.2%
Departure	555	29	584	5.0%	725	20	745	2.7%
Total	1,187	54	1,241	4.4%	1,520	38	1,558	2.4%
South Leg								
Approach	481	13	494	2.6%	427	5	432	1.2%
Departure	464	20	484	4.1%	692	9	701	1.3%
Total	945	33	978	3.4%	1,119	14	1,133	1.2%
East Leg								
Approach	74	7	81	8.6%	186	11	197	5.6%
Departure	191	10	201	5.0%	82	7	89	7.9%
Total	265	17	282	6.0%	268	18	286	6.3%
West Leg								
Approach	293	18	311	5.8%	485	9	494	1.8%
Departure	270	4	274	1.5%	394	7	401	1.7%
Total	563	22	585	3.8%	879	16	895	1.8%
Total Approaches								
Approach	1,480	63	1,543		1,893	43	1,936	
Departure	1,480	63	1,543		1,893	43	1,936	
Total	2,960	126	3,086	4.1%	3,786	86	3,872	2.2%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
4 . Auto Mall Dr/Eucalyptus Avenue								
NBL	26	0	26	0.00%	52	3	55	5.45%
NBT	2	0	2	0.00%	5	0	5	0.00%
NBR	11	0	11	0.00%	6	0	6	0.00%
SBL	0	0	0	0.00%	0	0	0	0.00%
SBT	1	0	1	0.00%	5	0	5	0.00%
SBR	4	0	4	0.00%	16	0	16	0.00%
EBL	10	0	10	0.00%	12	0	12	0.00%
EBT	62	6	68	8.82%	45	9	54	16.67%
EBR	39	0	39	0.00%	21	4	25	16.00%
WBL	11	0	11	0.00%	12	0	12	0.00%
WBT	57	6	63	9.52%	77	9	86	10.47%
WBR	2	0	2	0.00%	1	0	1	0.00%
North Leg								
Approach	5	0	5	0.0%	21	0	21	0.0%
Departure	14	0	14	0.0%	18	0	18	0.0%
Total	19	0	19	0.0%	39	0	39	0.0%
South Leg								
Approach	39	0	39	0.0%	63	3	66	4.5%
Departure	51	0	51	0.0%	38	4	42	9.5%
Total	90	0	90	0.0%	101	7	108	6.5%
East Leg								
Approach	70	6	76	7.9%	90	9	99	9.1%
Departure	73	6	79	7.6%	51	9	60	15.0%
Total	143	12	155	7.7%	141	18	159	11.3%
West Leg								
Approach	111	6	117	5.1%	78	13	91	14.3%
Departure	87	6	93	6.5%	145	12	157	7.6%
Total	198	12	210	5.7%	223	25	248	10.1%
Total Approaches								
Approach	225	12	237		252	25	277	
Departure	225	12	237		252	25	277	
Total	450	24	474	5.1%	504	50	554	9.0%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
5 . Dwy 1/Eucalyptus Avenue								
NBL	0	0	0	0.00%	0	0	0	0.00%
NBT	0	0	0	0.00%	0	0	0	0.00%
NBR	0	0	0	0.00%	0	0	0	0.00%
SBL	0	1	1	100.00%	0	0	0	0.00%
SBT	0	0	0	0.00%	0	0	0	0.00%
SBR	0	0	0	0.00%	0	0	0	0.00%
EBL	0	1	1	100.00%	0	0	0	0.00%
EBT	27	3	30	10.00%	35	2	37	5.41%
EBR	0	0	0	0.00%	0	0	0	0.00%
WBL	0	0	0	0.00%	0	0	0	0.00%
WBT	48	3	51	5.88%	49	4	53	7.55%
WBR	0	0	0	0.00%	0	0	0	0.00%
North Leg								
Approach	0	1	1	100.0%	0	0	0	0.0%
Departure	0	1	1	100.0%	0	0	0	0.0%
Total	0	2	2	100.0%	0	0	0	0.0%
South Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
East Leg								
Approach	48	3	51	5.9%	49	4	53	7.5%
Departure	27	4	31	12.9%	35	2	37	5.4%
Total	75	7	82	8.5%	84	6	90	6.7%
West Leg								
Approach	27	4	31	12.9%	35	2	37	5.4%
Departure	48	3	51	5.9%	49	4	53	7.5%
Total	75	7	82	8.5%	84	6	90	6.7%
Total Approaches								
Approach	75	8	83		84	6	90	
Departure	75	8	83		84	6	90	
Total	150	16	166	9.6%	168	12	180	6.7%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
6 . Dwy 2-Essen Ln/Encilia Avenue								
NBL	1	0	1	0.00%	0	0	0	0.00%
NBT	0	0	0	0.00%	0	0	0	0.00%
NBR	5	0	5	0.00%	3	0	3	0.00%
SBL	0	0	0	0.00%	0	0	0	0.00%
SBT	0	0	0	0.00%	0	0	0	0.00%
SBR	0	0	0	0.00%	0	0	0	0.00%
EBL	0	0	0	0.00%	0	0	0	0.00%
EBT	1	0	1	0.00%	0	0	0	0.00%
EBR	2	0	2	0.00%	0	0	0	0.00%
WBL	4	0	4	0.00%	9	1	10	10.00%
WBT	2	0	2	0.00%	1	0	1	0.00%
WBR	0	0	0	0.00%	0	0	0	0.00%
North Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
South Leg								
Approach	6	0	6	0.0%	3	0	3	0.0%
Departure	6	0	6	0.0%	9	1	10	10.0%
Total	12	0	12	0.0%	12	1	13	7.7%
East Leg								
Approach	6	0	6	0.0%	10	1	11	9.1%
Departure	6	0	6	0.0%	3	0	3	0.0%
Total	12	0	12	0.0%	13	1	14	7.1%
West Leg								
Approach	3	0	3	0.0%	0	0	0	0.0%
Departure	3	0	3	0.0%	1	0	1	0.0%
Total	6	0	6	0.0%	1	0	1	0.0%
Total Approaches								
Approach	15	0	15		13	1	14	
Departure	15	0	15		13	1	14	
Total	30	0	30	0.0%	26	2	28	7.1%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
8 . Dwy 4-Shubert Street/Encilia Avenue								
NBL	0	0	0	0.00%	0	0	0	0.00%
NBT	0	0	0	0.00%	0	0	0	0.00%
NBR	5	0	5	0.00%	2	0	2	0.00%
SBL	0	0	0	0.00%	0	0	0	0.00%
SBT	0	0	0	0.00%	0	0	0	0.00%
SBR	0	0	0	0.00%	0	0	0	0.00%
EBL	0	0	0	0.00%	0	0	0	0.00%
EBT	19	1	20	5.00%	6	0	6	0.00%
EBR	0	0	0	0.00%	0	0	0	0.00%
WBL	1	0	1	0.00%	3	0	3	0.00%
WBT	5	0	5	0.00%	15	2	17	11.76%
WBR	0	0	0	0.00%	0	0	0	0.00%
North Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
South Leg								
Approach	5	0	5	0.0%	2	0	2	0.0%
Departure	1	0	1	0.0%	3	0	3	0.0%
Total	6	0	6	0.0%	5	0	5	0.0%
East Leg								
Approach	6	0	6	0.0%	18	2	20	10.0%
Departure	24	1	25	4.0%	8	0	8	0.0%
Total	30	1	31	3.2%	26	2	28	7.1%
West Leg								
Approach	19	1	20	5.0%	6	0	6	0.0%
Departure	5	0	5	0.0%	15	2	17	11.8%
Total	24	1	25	4.0%	21	2	23	8.7%
Total Approaches								
Approach	30	1	31		26	2	28	
Departure	30	1	31		26	2	28	
Total	60	2	62	3.2%	52	4	56	7.1%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
10 . Redlands Boulevard/SR-60 Westbound Ramps								
NBL	2	1	3	33.33%	3	0	3	0.00%
NBT	371	11	382	2.88%	650	18	668	2.69%
NBR	131	10	141	7.09%	92	3	95	3.16%
SBL	345	5	350	1.43%	359	11	370	2.97%
SBT	312	9	321	2.80%	411	10	421	2.38%
SBR	2	0	2	0.00%	0	0	0	0.00%
EBL	2	0	2	0.00%	0	0	0	0.00%
EBT	1	0	1	0.00%	1	2	3	66.67%
EBR	3	0	3	0.00%	1	0	1	0.00%
WBL	36	1	37	2.70%	21	1	22	4.55%
WBT	0	0	0	0.00%	0	0	0	0.00%
WBR	26	2	28	7.14%	20	0	20	0.00%
North Leg								
Approach	659	14	673	2.1%	770	21	791	2.7%
Departure	399	13	412	3.2%	670	18	688	2.6%
Total	1,058	27	1,085	2.5%	1,440	39	1,479	2.6%
South Leg								
Approach	504	22	526	4.2%	745	21	766	2.7%
Departure	351	10	361	2.8%	433	11	444	2.5%
Total	855	32	887	3.6%	1,178	32	1,210	2.6%
East Leg								
Approach	62	3	65	4.6%	41	1	42	2.4%
Departure	477	15	492	3.0%	452	16	468	3.4%
Total	539	18	557	3.2%	493	17	510	3.3%
West Leg								
Approach	6	0	6	0.0%	2	2	4	50.0%
Departure	4	1	5	20.0%	3	0	3	0.0%
Total	10	1	11	9.1%	5	2	7	28.6%
Total Approaches								
Approach	1,231	39	1,270		1,558	45	1,603	
Departure	1,231	39	1,270		1,558	45	1,603	
Total	2,462	78	2,540	3.1%	3,116	90	3,206	2.8%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
11 . Redlands Boulevard/SR-60 Eastbound Ramps								
NBL	58	5	63	7.94%	67	1	68	1.47%
NBT	393	15	408	3.68%	372	5	377	1.33%
NBR	0	0	0	0.00%	0	0	0	0.00%
SBL	0	0	0	0.00%	0	0	0	0.00%
SBT	329	6	335	1.79%	386	7	393	1.78%
SBR	28	2	30	6.67%	32	1	33	3.03%
EBL	120	4	124	3.23%	391	8	399	2.01%
EBT	0	0	0	0.00%	0	0	0	0.00%
EBR	58	8	66	12.12%	127	4	131	3.05%
WBL	0	0	0	0.00%	0	0	0	0.00%
WBT	0	0	0	0.00%	0	0	0	0.00%
WBR	0	0	0	0.00%	0	0	0	0.00%
North Leg								
Approach	357	8	365	2.2%	418	8	426	1.9%
Departure	513	19	532	3.6%	763	13	776	1.7%
Total	870	27	897	3.0%	1,181	21	1,202	1.7%
South Leg								
Approach	451	20	471	4.2%	439	6	445	1.3%
Departure	387	14	401	3.5%	513	11	524	2.1%
Total	838	34	872	3.9%	952	17	969	1.8%
East Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
West Leg								
Approach	178	12	190	6.3%	518	12	530	2.3%
Departure	86	7	93	7.5%	99	2	101	2.0%
Total	264	19	283	6.7%	617	14	631	2.2%
Total Approaches								
Approach	986	40	1,026		1,375	26	1,401	
Departure	986	40	1,026		1,375	26	1,401	
Total	1,972	80	2,052	3.9%	2,750	52	2,802	1.9%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
12 . Redlands Boulevard/Eucalyptus Avenue								
NBL	13	0	13	0.00%	13	0	13	0.00%
NBT	427	9	436	2.06%	394	4	398	1.01%
NBR	0	0	0	0.00%	0	0	0	0.00%
SBL	0	0	0	0.00%	0	0	0	0.00%
SBT	332	7	339	2.06%	482	12	494	2.43%
SBR	50	7	57	12.28%	35	3	38	7.89%
EBL	13	11	24	45.83%	29	2	31	6.45%
EBT	0	0	0	0.00%	0	0	0	0.00%
EBR	10	1	11	9.09%	18	2	20	10.00%
WBL	0	0	0	0.00%	0	0	0	0.00%
WBT	0	0	0	0.00%	0	0	0	0.00%
WBR	16	0	16	0.00%	25	0	25	0.00%
North Leg								
Approach	382	14	396	3.5%	517	15	532	2.8%
Departure	456	20	476	4.2%	448	6	454	1.3%
Total	838	34	872	3.9%	965	21	986	2.1%
South Leg								
Approach	440	9	449	2.0%	407	4	411	1.0%
Departure	342	8	350	2.3%	500	14	514	2.7%
Total	782	17	799	2.1%	907	18	925	1.9%
East Leg								
Approach	16	0	16	0.0%	25	0	25	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	16	0	16	0.0%	25	0	25	0.0%
West Leg								
Approach	23	12	35	34.3%	47	4	51	7.8%
Departure	63	7	70	10.0%	48	3	51	5.9%
Total	86	19	105	18.1%	95	7	102	6.9%
Total Approaches								
Approach	861	35	896		996	23	1,019	
Departure	861	35	896		996	23	1,019	
Total	1,722	70	1,792	3.9%	1,992	46	2,038	2.3%

Table C-2: Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
15 . Redlands Boulevard/Encilia Avenue								
NBL	0	0	0	0.00%	0	0	0	0.00%
NBT	420	7	427	1.64%	396	5	401	1.25%
NBR	0	0	0	0.00%	0	0	0	0.00%
SBL	0	0	0	0.00%	0	0	0	0.00%
SBT	332	9	341	2.64%	486	11	497	2.21%
SBR	5	0	5	0.00%	14	2	16	12.50%
EBL	19	2	21	9.52%	8	0	8	0.00%
EBT	0	0	0	0.00%	0	0	0	0.00%
EBR	2	0	2	0.00%	0	0	0	0.00%
WBL	0	0	0	0.00%	0	0	0	0.00%
WBT	0	0	0	0.00%	0	0	0	0.00%
WBR	0	0	0	0.00%	0	0	0	0.00%
North Leg								
Approach	337	9	346	2.6%	500	13	513	2.5%
Departure	439	9	448	2.0%	404	5	409	1.2%
Total	776	18	794	2.3%	904	18	922	2.0%
South Leg								
Approach	420	7	427	1.6%	396	5	401	1.2%
Departure	334	9	343	2.6%	486	11	497	2.2%
Total	754	16	770	2.1%	882	16	898	1.8%
East Leg								
Approach	0	0	0	0.0%	0	0	0	0.0%
Departure	0	0	0	0.0%	0	0	0	0.0%
Total	0	0	0	0.0%	0	0	0	0.0%
West Leg								
Approach	21	2	23	8.7%	8	0	8	0.0%
Departure	5	0	5	0.0%	14	2	16	12.5%
Total	26	2	28	7.1%	22	2	24	8.3%
Total Approaches								
Approach	778	18	796		904	18	922	
Departure	778	18	796		904	18	922	
Total	1,556	36	1,592	2.3%	1,808	36	1,844	2.0%

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
1 Moreno Beach Dr/SR-60 Westbound Ramps						
NBL	0		0	0		0
NBT	208		208	241	6	247
NBR	350		350	431	11	442
SBL	81		81	36		36
SBT	214		214	238	-1	237
SBR	0		0	0		0
EBL	0		0	0		0
EBT	0		0	0		0
EBR	0		0	0		0
WBL	84		84	93	-1	92
WBT	0		0	0		0
WBR	4		4	8		8
North Leg						
Approach	295	0	295	274	-1	273
Departure	212	0	212	249	6	255
Total	507	0	507	523	5	528
South Leg						
Approach	558	0	558	672	17	689
Departure	298	0	298	331	-2	329
Total	856	0	856	1,003	15	1,018
East Leg						
Approach	88	0	88	101	-1	100
Departure	431	0	431	467	11	478
Total	519	0	519	568	10	578
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	941	0	941	1,047	15	1,062
Departure	941	0	941	1,047	15	1,062
Total	1,882	0	1,882	2,094	30	2,124

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
2 Moreno Beach Dr/SR-60 Eastbound Ramps						
NBL	0		0	0		0
NBT	492	22	514	624		624
NBR	121		121	168		168
SBL	13		13	8		8
SBT	290	-5	285	321		321
SBR	0		0	0		0
EBL	42	2	44	65		65
EBT	2		2	2		2
EBR	400		400	525		525
WBL	0		0	0		0
WBT	0		0	0		0
WBR	0		0	0		0
North Leg						
Approach	303	-5	298	329	0	329
Departure	534	24	558	689	0	689
Total	837	19	856	1,018	0	1,018
South Leg						
Approach	613	22	635	792	0	792
Departure	690	-5	685	846	0	846
Total	1,303	17	1,320	1,638	0	1,638
East Leg						
Approach	0	0	0	0	0	0
Departure	136	0	136	178	0	178
Total	136	0	136	178	0	178
West Leg						
Approach	444	2	446	592	0	592
Departure	0	0	0	0	0	0
Total	444	2	446	592	0	592
Total Approaches						
Approach	1,360	19	1,379	1,713	0	1,713
Departure	1,360	19	1,379	1,713	0	1,713
Total	2,720	38	2,758	3,426	0	3,426

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
2 Moreno Beach Dr/SR-60 Eastbound Ramps						
NBL	0		0	0		0
NBT	514		514	624		624
NBR	121		121	168		168
SBL	13		13	8		8
SBT	285		285	321		321
SBR	0		0	0		0
EBL	44		44	65		65
EBT	2		2	2		2
EBR	400		400	525		525
WBL	0		0	0		0
WBT	0		0	0		0
WBR	0		0	0		0
North Leg						
Approach	298	0	298	329	0	329
Departure	558	0	558	689	0	689
Total	856	0	856	1,018	0	1,018
South Leg						
Approach	635	0	635	792	0	792
Departure	685	0	685	846	0	846
Total	1,320	0	1,320	1,638	0	1,638
East Leg						
Approach	0	0	0	0	0	0
Departure	136	0	136	178	0	178
Total	136	0	136	178	0	178
West Leg						
Approach	446	0	446	592	0	592
Departure	0	0	0	0	0	0
Total	446	0	446	592	0	592
Total Approaches						
Approach	1,379	0	1,379	1,713	0	1,713
Departure	1,379	0	1,379	1,713	0	1,713
Total	2,758	0	2,758	3,426	0	3,426

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
3 Moreno Beach Dr/Eucalyptus Avenue						
NBL	94		94	114		114
NBT	393	16	409	318	11	329
NBR	17		17	5		5
SBL	136		136	55	1	56
SBT	398		398	539	10	549
SBR	151		151	237	4	241
EBL	181	7	188	327	11	338
EBT	64		64	39		39
EBR	79		79	135		135
WBL	20		20	33		33
WBT	33		33	57		57
WBR	36	1	37	121	4	125
North Leg						
Approach	685	0	685	831	15	846
Departure	610	24	634	766	26	792
Total	1,295	24	1,319	1,597	41	1,638
South Leg						
Approach	504	16	520	437	11	448
Departure	497	0	497	707	10	717
Total	1,001	16	1,017	1,144	21	1,165
East Leg						
Approach	89	1	90	211	4	215
Departure	217	0	217	99	1	100
Total	306	1	307	310	5	315
West Leg						
Approach	324	7	331	501	11	512
Departure	278	0	278	408	4	412
Total	602	7	609	909	15	924
Total Approaches						
Approach	1,602	24	1,626	1,980	41	2,021
Departure	1,602	24	1,626	1,980	41	2,021
Total	3,204	48	3,252	3,960	82	4,042

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
10 Redlands Boulevard/SR-60 Westbound Ramps						
NBL	5		5	3		3
NBT	395	4	399	682		682
NBR	154	1	155	98		98
SBL	356		356	379		379
SBT	329	3	332	429		429
SBR	2		2	0		0
EBL	2		2	0		0
EBT	1		1	6		6
EBR	3		3	1		1
WBL	38		38	23		23
WBT	0		0	0		0
WBR	31		31	20		20
North Leg						
Approach	687	3	690	808	0	808
Departure	428	4	432	702	0	702
Total	1,115	7	1,122	1,510	0	1,510
South Leg						
Approach	554	5	559	783	0	783
Departure	370	3	373	453	0	453
Total	924	8	932	1,236	0	1,236
East Leg						
Approach	69	0	69	43	0	43
Departure	511	1	512	483	0	483
Total	580	1	581	526	0	526
West Leg						
Approach	6	0	6	7	0	7
Departure	7	0	7	3	0	3
Total	13	0	13	10	0	10
Total Approaches						
Approach	1,316	8	1,324	1,641	0	1,641
Departure	1,316	8	1,324	1,641	0	1,641
Total	2,632	16	2,648	3,282	0	3,282

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
11 Redlands Boulevard/SR-60 Eastbound Ramps						
NBL	69		69	70		70
NBT	428		428	381	-1	380
NBR	0		0	0		0
SBL	0		0	0		0
SBT	339		339	398	18	416
SBR	34		34	35	2	37
EBL	131		131	405	-2	403
EBT	0		0	0		0
EBR	81		81	136		136
WBL	0		0	0		0
WBT	0		0	0		0
WBR	0		0	0		0
North Leg						
Approach	373	0	373	433	20	453
Departure	559	0	559	786	-3	783
Total	932	0	932	1,219	17	1,236
South Leg						
Approach	497	0	497	451	-1	450
Departure	420	0	420	534	18	552
Total	917	0	917	985	17	1,002
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	212	0	212	541	-2	539
Departure	103	0	103	105	2	107
Total	315	0	315	646	0	646
Total Approaches						
Approach	1,082	0	1,082	1,425	17	1,442
Departure	1,082	0	1,082	1,425	17	1,442
Total	2,164	0	2,164	2,850	34	2,884

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
11 Redlands Boulevard/SR-60 Eastbound Ramps						
NBL	69		69	70		70
NBT	428		428	380		380
NBR	0		0	0		0
SBL	0		0	0		0
SBT	339		339	416		416
SBR	34		34	37		37
EBL	131		131	403		403
EBT	0		0	0		0
EBR	81		81	136		136
WBL	0		0	0		0
WBT	0		0	0		0
WBR	0		0	0		0
North Leg						
Approach	373	0	373	453	0	453
Departure	559	0	559	783	0	783
Total	932	0	932	1,236	0	1,236
South Leg						
Approach	497	0	497	450	0	450
Departure	420	0	420	552	0	552
Total	917	0	917	1,002	0	1,002
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	212	0	212	539	0	539
Departure	103	0	103	107	0	107
Total	315	0	315	646	0	646
Total Approaches						
Approach	1,082	0	1,082	1,442	0	1,442
Departure	1,082	0	1,082	1,442	0	1,442
Total	2,164	0	2,164	2,884	0	2,884

**Table C-3: Balance of Existing Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
12 Redlands Boulevard/Eucalyptus Avenue						
NBL	13		13	13		13
NBT	443	-5	438	400	-9	391
NBR	0		0	0		0
SBL	0		0	0		0
SBT	344	5	349	504	6	510
SBR	70	1	71	41	1	42
EBL	44	-1	43	35	-1	34
EBT	0		0	0		0
EBR	12		12	22		22
WBL	0		0	0		0
WBT	0		0	0		0
WBR	16		16	25	-1	24
North Leg						
Approach	414	6	420	545	7	552
Departure	503	-6	497	460	-11	449
Total	917	0	917	1,005	-4	1,001
South Leg						
Approach	456	-5	451	413	-9	404
Departure	356	5	361	526	6	532
Total	812	0	812	939	-3	936
East Leg						
Approach	16	0	16	25	-1	24
Departure	0	0	0	0	0	0
Total	16	0	16	25	-1	24
West Leg						
Approach	56	-1	55	57	-1	56
Departure	83	1	84	54	1	55
Total	139	0	139	111	0	111
Total Approaches						
Approach	942	0	942	1,040	-4	1,036
Departure	942	0	942	1,040	-4	1,036
Total	1,884	0	1,884	2,080	-8	2,072

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
1 . Moreno Beach Dr/SR-60 Westbound Ramps						
NBL	0	0	0	0	0	0
NBT	208	1	209	247	3	250
NBR	350	28	378	442	100	542
SBL	81	0	81	36	0	36
SBT	214	3	217	237	1	238
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	84	0	84	92	0	92
WBT	0	0	0	0	0	0
WBR	4	0	4	8	0	8
North Leg						
Approach	295	3	298	273	1	274
Departure	212	1	213	255	3	258
Total	507	4	511	528	4	532
South Leg						
Approach	558	29	587	689	103	792
Departure	298	3	301	329	1	330
Total	856	32	888	1,018	104	1,122
East Leg						
Approach	88	0	88	100	0	100
Departure	431	28	459	478	100	578
Total	519	28	547	578	100	678
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	941	32	973	1,062	104	1,166
Departure	941	32	973	1,062	104	1,166
Total	1,882	64	1,946	2,124	208	2,332

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
2 . Moreno Beach Dr/SR-60 Eastbound Ramps						
NBL	0	0	0	0	0	0
NBT	514	29	543	624	103	727
NBR	121	0	121	168	0	168
SBL	13	0	13	8	0	8
SBT	285	3	288	321	1	322
SBR	0	0	0	0	0	0
EBL	44	0	44	65	0	65
EBT	2	0	2	2	0	2
EBR	400	96	496	525	39	564
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	298	3	301	329	1	330
Departure	558	29	587	689	103	792
Total	856	32	888	1,018	104	1,122
South Leg						
Approach	635	29	664	792	103	895
Departure	685	99	784	846	40	886
Total	1,320	128	1,448	1,638	143	1,781
East Leg						
Approach	0	0	0	0	0	0
Departure	136	0	136	178	0	178
Total	136	0	136	178	0	178
West Leg						
Approach	446	96	542	592	39	631
Departure	0	0	0	0	0	0
Total	446	96	542	592	39	631
Total Approaches						
Approach	1,379	128	1,507	1,713	143	1,856
Departure	1,379	128	1,507	1,713	143	1,856
Total	2,758	256	3,014	3,426	286	3,712

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
3 . Moreno Beach Dr/Eucalyptus Avenue						
NBL	94	0	94	114	0	114
NBT	409	0	409	329	0	329
NBR	17	3	20	5	1	6
SBL	136	100	236	56	40	96
SBT	398	0	398	549	0	549
SBR	151	0	151	241	0	241
EBL	188	0	188	338	0	338
EBT	64	5	69	39	2	41
EBR	79	0	79	135	0	135
WBL	20	1	21	33	3	36
WBT	33	2	35	57	6	63
WBR	37	29	66	125	103	228
North Leg						
Approach	685	100	785	846	40	886
Departure	634	29	663	792	103	895
Total	1,319	129	1,448	1,638	143	1,781
South Leg						
Approach	520	3	523	448	1	449
Departure	497	1	498	717	3	720
Total	1,017	4	1,021	1,165	4	1,169
East Leg						
Approach	90	32	122	215	112	327
Departure	217	108	325	100	43	143
Total	307	140	447	315	155	470
West Leg						
Approach	331	5	336	512	2	514
Departure	278	2	280	412	6	418
Total	609	7	616	924	8	932
Total Approaches						
Approach	1,626	140	1,766	2,021	155	2,176
Departure	1,626	140	1,766	2,021	155	2,176
Total	3,252	280	3,532	4,042	310	4,352

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
4 . Auto Mall Dr/Eucalyptus Avenue						
NBL	26	0	26	57	0	57
NBT	2	0	2	5	0	5
NBR	11	4	15	6	2	8
SBL	0	0	0	0	0	0
SBT	1	0	1	5	0	5
SBR	4	0	4	16	0	16
EBL	10	0	10	12	0	12
EBT	79	108	187	66	44	110
EBR	39	0	39	27	0	27
WBL	11	1	12	12	5	17
WBT	72	32	104	95	112	207
WBR	2	0	2	1	0	1
North Leg						
Approach	5	0	5	21	0	21
Departure	14	0	14	18	0	18
Total	19	0	19	39	0	39
South Leg						
Approach	39	4	43	68	2	70
Departure	51	1	52	44	5	49
Total	90	5	95	112	7	119
East Leg						
Approach	85	33	118	108	117	225
Departure	90	112	202	72	46	118
Total	175	145	320	180	163	343
West Leg						
Approach	128	108	236	105	44	149
Departure	102	32	134	168	112	280
Total	230	140	370	273	156	429
Total Approaches						
Approach	257	145	402	302	163	465
Departure	257	145	402	302	163	465
Total	514	290	804	604	326	930

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
5 . Dwy 1/Eucalyptus Avenue						
NBL	0	26	26	0	91	91
NBT	0	0	0	0	0	0
NBR	0	30	30	0	104	104
SBL	2	0	2	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	2	0	2	0	0	0
EBT	35	25	60	40	10	50
EBR	0	88	88	0	36	36
WBL	0	66	66	0	27	27
WBT	54	7	61	57	26	83
WBR	0	0	0	0	0	0
North Leg						
Approach	2	0	2	0	0	0
Departure	2	0	2	0	0	0
Total	4	0	4	0	0	0
South Leg						
Approach	0	56	56	0	195	195
Departure	0	154	154	0	63	63
Total	0	210	210	0	258	258
East Leg						
Approach	54	73	127	57	53	110
Departure	37	55	92	40	114	154
Total	91	128	219	97	167	264
West Leg						
Approach	37	113	150	40	46	86
Departure	54	33	87	57	117	174
Total	91	146	237	97	163	260
Total Approaches						
Approach	93	242	335	97	294	391
Departure	93	242	335	97	294	391
Total	186	484	670	194	588	782

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
6 . Dwy 2-Essen Ln/Encilia Avenue						
NBL	1	0	1	0	0	0
NBT	0	0	0	0	0	0
NBR	5	0	5	3	0	3
SBL	0	3	3	0	11	11
SBT	0	0	0	0	0	0
SBR	0	0	0	0	1	1
EBL	0	1	1	0	0	0
EBT	1	0	1	0	0	0
EBR	2	0	2	0	0	0
WBL	4	0	4	11	0	11
WBT	2	0	2	1	0	1
WBR	0	11	11	0	4	4
North Leg						
Approach	0	3	3	0	12	12
Departure	0	12	12	0	4	4
Total	0	15	15	0	16	16
South Leg						
Approach	6	0	6	3	0	3
Departure	6	0	6	11	0	11
Total	12	0	12	14	0	14
East Leg						
Approach	6	11	17	12	4	16
Departure	6	3	9	3	11	14
Total	12	14	26	15	15	30
West Leg						
Approach	3	1	4	0	0	0
Departure	3	0	3	1	1	2
Total	6	1	7	1	1	2
Total Approaches						
Approach	15	15	30	15	16	31
Departure	15	15	30	15	16	31
Total	30	30	60	30	32	62

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
7 . Dwy 3/Encilia Avenue						
NBL	1	0	1	0	0	0
NBT	0	0	0	0	0	0
NBR	15	0	15	3	0	3
SBL	0	5	5	0	17	17
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	6	3	9	3	11	14
EBR	0	0	0	0	0	0
WBL	0	0	0	6	0	6
WBT	5	11	16	12	4	16
WBR	0	15	15	0	6	6
North Leg						
Approach	0	5	5	0	17	17
Departure	0	15	15	0	6	6
Total	0	20	20	0	23	23
South Leg						
Approach	16	0	16	3	0	3
Departure	0	0	0	6	0	6
Total	16	0	16	9	0	9
East Leg						
Approach	5	26	31	18	10	28
Departure	21	8	29	6	28	34
Total	26	34	60	24	38	62
West Leg						
Approach	6	3	9	3	11	14
Departure	6	11	17	12	4	16
Total	12	14	26	15	15	30
Total Approaches						
Approach	27	34	61	24	38	62
Departure	27	34	61	24	38	62
Total	54	68	122	48	76	124

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
8 . Dwy 4-Shubert Street/Encilia Avenue						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	5	0	5	2	0	2
SBL	0	6	6	0	23	23
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	21	8	29	6	29	35
EBR	0	0	0	0	0	0
WBL	1	0	1	3	0	3
WBT	5	26	31	18	10	28
WBR	0	22	22	0	9	9
North Leg						
Approach	0	6	6	0	23	23
Departure	0	22	22	0	9	9
Total	0	28	28	0	32	32
South Leg						
Approach	5	0	5	2	0	2
Departure	1	0	1	3	0	3
Total	6	0	6	5	0	5
East Leg						
Approach	6	48	54	21	19	40
Departure	26	14	40	8	52	60
Total	32	62	94	29	71	100
West Leg						
Approach	21	8	29	6	29	35
Departure	5	26	31	18	10	28
Total	26	34	60	24	39	63
Total Approaches						
Approach	32	62	94	29	71	100
Departure	32	62	94	29	71	100
Total	64	124	188	58	142	200

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
9 . Dwy 5/Eucalyptus Avenue						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	5	5	0	18	18
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	55	55	110	56	114	170
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	84	73	157	55	53	108
WBR	0	0	0	0	0	0
North Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
South Leg						
Approach	0	5	5	0	18	18
Departure	0	0	0	0	0	0
Total	0	5	5	0	18	18
East Leg						
Approach	84	73	157	55	53	108
Departure	55	60	115	56	132	188
Total	139	133	272	111	185	296
West Leg						
Approach	55	55	110	56	114	170
Departure	84	73	157	55	53	108
Total	139	128	267	111	167	278
Total Approaches						
Approach	139	133	272	111	185	296
Departure	139	133	272	111	185	296
Total	278	266	544	222	370	592

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
10 . Redlands Boulevard/SR-60 Westbound Ramps						
NBL	5	0	5	3	0	3
NBT	399	3	402	682	9	691
NBR	155	30	185	98	101	199
SBL	356	0	356	379	0	379
SBT	332	9	341	429	3	432
SBR	2	0	2	0	0	0
EBL	2	0	2	0	0	0
EBT	1	0	1	6	0	6
EBR	3	0	3	1	0	1
WBL	38	26	64	23	10	33
WBT	0	0	0	0	0	0
WBR	31	0	31	20	0	20
North Leg						
Approach	690	9	699	808	3	811
Departure	432	3	435	702	9	711
Total	1,122	12	1,134	1,510	12	1,522
South Leg						
Approach	559	33	592	783	110	893
Departure	373	35	408	453	13	466
Total	932	68	1,000	1,236	123	1,359
East Leg						
Approach	69	26	95	43	10	53
Departure	512	30	542	483	101	584
Total	581	56	637	526	111	637
West Leg						
Approach	6	0	6	7	0	7
Departure	7	0	7	3	0	3
Total	13	0	13	10	0	10
Total Approaches						
Approach	1,324	68	1,392	1,641	123	1,764
Departure	1,324	68	1,392	1,641	123	1,764
Total	2,648	136	2,784	3,282	246	3,528

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
11 . Redlands Boulevard/SR-60 Eastbound Ramps						
NBL	69	8	77	70	27	97
NBT	428	32	460	380	110	490
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	339	34	373	416	14	430
SBR	34	0	34	37	0	37
EBL	131	0	131	403	0	403
EBT	0	0	0	0	0	0
EBR	81	98	179	136	41	177
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	373	34	407	453	14	467
Departure	559	32	591	783	110	893
Total	932	66	998	1,236	124	1,360
South Leg						
Approach	497	40	537	450	137	587
Departure	420	132	552	552	55	607
Total	917	172	1,089	1,002	192	1,194
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	212	98	310	539	41	580
Departure	103	8	111	107	27	134
Total	315	106	421	646	68	714
Total Approaches						
Approach	1,082	172	1,254	1,442	192	1,634
Departure	1,082	172	1,254	1,442	192	1,634
Total	2,164	344	2,508	2,884	384	3,268

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
12 . Redlands Boulevard/Eucalyptus Avenue						
NBL	13	9	22	13	27	40
NBT	438	5	443	391	19	410
NBR	0	1	1	0	3	3
SBL	0	0	0	0	0	0
SBT	349	70	419	510	28	538
SBR	71	62	133	42	25	67
EBL	43	34	77	34	117	151
EBT	0	1	1	0	2	2
EBR	12	26	38	22	12	34
WBL	0	3	3	0	1	1
WBT	0	2	2	0	1	1
WBR	16	0	16	24	0	24
North Leg						
Approach	420	132	552	552	53	605
Departure	497	39	536	449	136	585
Total	917	171	1,088	1,001	189	1,190
South Leg						
Approach	451	15	466	404	49	453
Departure	361	99	460	532	41	573
Total	812	114	926	936	90	1,026
East Leg						
Approach	16	5	21	24	2	26
Departure	0	2	2	0	5	5
Total	16	7	23	24	7	31
West Leg						
Approach	55	61	116	56	131	187
Departure	84	73	157	55	53	108
Total	139	134	273	111	184	295
Total Approaches						
Approach	942	213	1,155	1,036	235	1,271
Departure	942	213	1,155	1,036	235	1,271
Total	1,884	426	2,310	2,072	470	2,542

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
13 . Redlands Boulevard/Dwy 6						
NBL	0	0	0	0	0	0
NBT	451	16	467	404	50	454
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	361	85	446	532	36	568
SBR	0	14	14	0	6	6
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	4	4	0	13	13
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	361	99	460	532	42	574
Departure	451	16	467	404	50	454
Total	812	115	927	936	92	1,028
South Leg						
Approach	451	16	467	404	50	454
Departure	361	89	450	532	49	581
Total	812	105	917	936	99	1,035
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	0	4	4	0	13	13
Departure	0	14	14	0	6	6
Total	0	18	18	0	19	19
Total Approaches						
Approach	812	119	931	936	105	1,041
Departure	812	119	931	936	105	1,041
Total	1,624	238	1,862	1,872	210	2,082

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
14 . Redlands Boulevard/Dwy 7						
NBL	0	0	0	0	0	0
NBT	451	16	467	404	50	454
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	361	26	387	532	24	556
SBR	0	62	62	0	25	25
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	4	4	0	13	13
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	361	88	449	532	49	581
Departure	451	16	467	404	50	454
Total	812	104	916	936	99	1,035
South Leg						
Approach	451	16	467	404	50	454
Departure	361	30	391	532	37	569
Total	812	46	858	936	87	1,023
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	0	4	4	0	13	13
Departure	0	62	62	0	25	25
Total	0	66	66	0	38	38
Total Approaches						
Approach	812	108	920	936	112	1,048
Departure	812	108	920	936	112	1,048
Total	1,624	216	1,840	1,872	224	2,096

Table C-4: Existing With Project Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Exist PCE Volume	Project Trips	Exist With Project	Exist PCE Volume	Project Trips	Exist With Project
15 . Redlands Boulevard/Encilia Avenue						
NBL	0	26	26	0	10	10
NBT	433	2	435	404	1	405
NBR	0	0	0	0	0	0
SBL	0	2	2	0	7	7
SBT	347	6	353	506	21	527
SBR	5	22	27	17	9	26
EBL	22	12	34	8	42	50
EBT	0	0	0	0	0	0
EBR	2	3	5	0	9	9
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	352	30	382	523	37	560
Departure	455	14	469	412	43	455
Total	807	44	851	935	80	1,015
South Leg						
Approach	433	28	461	404	11	415
Departure	349	9	358	506	30	536
Total	782	37	819	910	41	951
East Leg						
Approach	0	0	0	0	0	0
Departure	0	2	2	0	7	7
Total	0	2	2	0	7	7
West Leg						
Approach	24	15	39	8	51	59
Departure	5	48	53	17	19	36
Total	29	63	92	25	70	95
Total Approaches						
Approach	809	73	882	935	99	1,034
Departure	809	73	882	935	99	1,034
Total	1,618	146	1,764	1,870	198	2,068

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
1 . Moreno Beach Dr/SR-60 Westbound Ramps														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	208	22	230	233	463	1	464	247	26	273	291	564	3	567
NBR	350	36	386	108	494	28	522	442	46	488	131	619	100	719
SBL	81	8	89	27	116	0	116	36	4	40	18	58	0	58
SBT	214	22	236	72	308	3	311	237	25	262	111	373	1	374
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	84	9	93	118	211	0	211	92	10	102	147	249	0	249
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	4	0	4	3	7	0	7	8	1	9	10	19	0	19
North Leg														
Approach	295	30	325	99	424	3	427	273	29	302	129	431	1	432
Departure	212	22	234	236	470	1	471	255	27	282	301	583	3	586
Total	507	52	559	335	894	4	898	528	56	584	430	1,014	4	1,018
South Leg														
Approach	558	58	616	341	957	29	986	689	72	761	422	1,183	103	1,286
Departure	298	31	329	190	519	3	522	329	35	364	258	622	1	623
Total	856	89	945	531	1,476	32	1,508	1,018	107	1,125	680	1,805	104	1,909
East Leg														
Approach	88	9	97	121	218	0	218	100	11	111	157	268	0	268
Departure	431	44	475	135	610	28	638	478	50	528	149	677	100	777
Total	519	53	572	256	828	28	856	578	61	639	306	945	100	1,045
West Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches														
Approach	941	97	1,038	561	1,599	32	1,631	1,062	112	1,174	708	1,882	104	1,986
Departure	941	97	1,038	561	1,599	32	1,631	1,062	112	1,174	708	1,882	104	1,986
Total	1,882	194	2,076	1,122	3,198	64	3,262	2,124	224	2,348	1,416	3,764	208	3,972

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
2 . Moreno Beach Dr/SR-60 Eastbound Ramps														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	514	53	567	142	709	29	738	624	65	689	162	851	103	954
NBR	121	13	134	122	256	0	256	168	17	185	117	302	0	302
SBL	13	1	14	64	78	0	78	8	1	9	77	86	0	86
SBT	285	30	315	145	460	3	463	321	33	354	180	534	1	535
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	44	5	49	197	246	0	246	65	7	72	261	333	0	333
EBT	2	0	2	9	11	0	11	2	0	2	6	8	0	8
EBR	400	42	442	99	541	96	637	525	55	580	130	710	39	749
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	298	31	329	209	538	3	541	329	34	363	257	620	1	621
Departure	558	58	616	339	955	29	984	689	72	761	423	1,184	103	1,287
Total	856	89	945	548	1,493	32	1,525	1,018	106	1,124	680	1,804	104	1,908
South Leg														
Approach	635	66	701	264	965	29	994	792	82	874	279	1,153	103	1,256
Departure	685	72	757	244	1,001	99	1,100	846	88	934	310	1,244	40	1,284
Total	1,320	138	1,458	508	1,966	128	2,094	1,638	170	1,808	589	2,397	143	2,540
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	136	14	150	195	345	0	345	178	18	196	200	396	0	396
Total	136	14	150	195	345	0	345	178	18	196	200	396	0	396
West Leg														
Approach	446	47	493	305	798	96	894	592	62	654	397	1,051	39	1,090
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	446	47	493	305	798	96	894	592	62	654	397	1,051	39	1,090
Total Approaches														
Approach	1,379	144	1,523	778	2,301	128	2,429	1,713	178	1,891	933	2,824	143	2,967
Departure	1,379	144	1,523	778	2,301	128	2,429	1,713	178	1,891	933	2,824	143	2,967
Total	2,758	288	3,046	1,556	4,602	256	4,858	3,426	356	3,782	1,866	5,648	286	5,934

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
3 . Moreno Beach Dr/Eucalyptus Avenue														
NBL	94	10	104	51	155	0	155	114	12	126	45	171	0	171
NBT	409	43	452	240	692	0	692	329	34	363	233	596	0	596
NBR	17	2	19	45	64	3	67	5	1	6	28	34	1	35
SBL	136	14	150	33	183	100	283	56	6	62	29	91	40	131
SBT	398	41	439	204	643	0	643	549	57	606	273	879	0	879
SBR	151	16	167	9	176	0	176	241	25	266	13	279	0	279
EBL	188	20	208	10	218	0	218	338	35	373	11	384	0	384
EBT	64	7	71	14	85	5	90	39	4	43	10	53	2	55
EBR	79	8	87	28	115	0	115	135	14	149	70	219	0	219
WBL	20	2	22	15	37	1	38	33	3	36	49	85	3	88
WBT	33	3	36	4	40	2	42	57	6	63	16	79	6	85
WBR	37	4	41	18	59	29	88	125	13	138	33	171	103	274
North Leg														
Approach	685	71	756	246	1,002	100	1,102	846	88	934	315	1,249	40	1,289
Departure	634	67	701	268	969	29	998	792	82	874	277	1,151	103	1,254
Total	1,319	138	1,457	514	1,971	129	2,100	1,638	170	1,808	592	2,400	143	2,543
South Leg														
Approach	520	55	575	336	911	3	914	448	47	495	306	801	1	802
Departure	497	51	548	247	795	1	796	717	74	791	392	1,183	3	1,186
Total	1,017	106	1,123	583	1,706	4	1,710	1,165	121	1,286	698	1,984	4	1,988
East Leg														
Approach	90	9	99	37	136	32	168	215	22	237	98	335	112	447
Departure	217	23	240	92	332	108	440	100	11	111	67	178	43	221
Total	307	32	339	129	468	140	608	315	33	348	165	513	155	668
West Leg														
Approach	331	35	366	52	418	5	423	512	53	565	91	656	2	658
Departure	278	29	307	64	371	2	373	412	43	455	74	529	6	535
Total	609	64	673	116	789	7	796	924	96	1,020	165	1,185	8	1,193
Total Approaches														
Approach	1,626	170	1,796	671	2,467	140	2,607	2,021	210	2,231	810	3,041	155	3,196
Departure	1,626	170	1,796	671	2,467	140	2,607	2,021	210	2,231	810	3,041	155	3,196
Total	3,252	340	3,592	1,342	4,934	280	5,214	4,042	420	4,462	1,620	6,082	310	6,392

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
4 . Auto Mall Dr/Eucalyptus Avenue														
NBL	26	3	29	6	35	0	35	57	6	63	17	80	0	80
NBT	2	0	2	0	2	0	2	5	1	6	0	6	0	6
NBR	11	1	12	3	15	4	19	6	1	7	1	8	2	10
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	1	0	1	0	1	0	1	5	1	6	0	6	0	6
SBR	4	0	4	0	4	0	4	16	2	18	0	18	0	18
EBL	10	1	11	0	11	0	11	12	1	13	0	13	0	13
EBT	79	8	87	11	98	108	206	66	7	73	13	86	44	130
EBR	39	4	43	17	60	0	60	27	3	30	12	42	0	42
WBL	11	1	12	1	13	1	14	12	1	13	3	16	5	21
WBT	72	7	79	11	90	32	122	95	10	105	12	117	112	229
WBR	2	0	2	0	2	0	2	1	0	1	0	1	0	1
North Leg														
Approach	5	0	5	0	5	0	5	21	3	24	0	24	0	24
Departure	14	1	15	0	15	0	15	18	2	20	0	20	0	20
Total	19	1	20	0	20	0	20	39	5	44	0	44	0	44
South Leg														
Approach	39	4	43	9	52	4	56	68	8	76	18	94	2	96
Departure	51	5	56	18	74	1	75	44	5	49	15	64	5	69
Total	90	9	99	27	126	5	131	112	13	125	33	158	7	165
East Leg														
Approach	85	8	93	12	105	33	138	108	11	119	15	134	117	251
Departure	90	9	99	14	113	112	225	72	8	80	14	94	46	140
Total	175	17	192	26	218	145	363	180	19	199	29	228	163	391
West Leg														
Approach	128	13	141	28	169	108	277	105	11	116	25	141	44	185
Departure	102	10	112	17	129	32	161	168	18	186	29	215	112	327
Total	230	23	253	45	298	140	438	273	29	302	54	356	156	512
Total Approaches														
Approach	257	25	282	49	331	145	476	302	33	335	58	393	163	556
Departure	257	25	282	49	331	145	476	302	33	335	58	393	163	556
Total	514	50	564	98	662	290	952	604	66	670	116	786	326	1,112

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
5 . Dwy 1/Eucalyptus Avenue														
NBL	0	0	0	0	0	26	26	0	0	0	0	0	91	91
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	30	30	0	0	0	0	0	104	104
SBL	2	0	2	0	2	0	2	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	2	0	2	0	2	0	2	0	0	0	0	0	0	0
EBT	35	4	39	15	54	25	79	40	4	44	15	59	10	69
EBR	0	0	0	0	0	88	88	0	0	0	0	0	36	36
WBL	0	0	0	0	0	66	66	0	0	0	0	0	27	27
WBT	54	6	60	16	76	7	83	57	6	63	21	84	26	110
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	2	0	2	0	2	0	2	0	0	0	0	0	0	0
Departure	2	0	2	0	2	0	2	0	0	0	0	0	0	0
Total	4	0	4	0	4	0	4	0	0	0	0	0	0	0
South Leg														
Approach	0	0	0	0	0	56	56	0	0	0	0	0	195	195
Departure	0	0	0	0	0	154	154	0	0	0	0	0	63	63
Total	0	0	0	0	0	210	210	0	0	0	0	0	258	258
East Leg														
Approach	54	6	60	16	76	73	149	57	6	63	21	84	53	137
Departure	37	4	41	15	56	55	111	40	4	44	15	59	114	173
Total	91	10	101	31	132	128	260	97	10	107	36	143	167	310
West Leg														
Approach	37	4	41	15	56	113	169	40	4	44	15	59	46	105
Departure	54	6	60	16	76	33	109	57	6	63	21	84	117	201
Total	91	10	101	31	132	146	278	97	10	107	36	143	163	306
Total Approaches														
Approach	93	10	103	31	134	242	376	97	10	107	36	143	294	437
Departure	93	10	103	31	134	242	376	97	10	107	36	143	294	437
Total	186	20	206	62	268	484	752	194	20	214	72	286	588	874

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
6 . Dwy 2-Essen Ln/Encilia Avenue														
NBL	1	0	1	0	1	0	1	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	5	1	6	0	6	0	6	3	0	3	0	3	0	3
SBL	0	0	0	0	0	3	3	0	0	0	0	0	11	11
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0	1	1
EBL	0	0	0	0	0	1	1	0	0	0	0	0	0	0
EBT	1	0	1	0	1	0	1	0	0	0	0	0	0	0
EBR	2	0	2	0	2	0	2	0	0	0	0	0	0	0
WBL	4	0	4	0	4	0	4	11	1	12	0	12	0	12
WBT	2	0	2	0	2	0	2	1	0	1	0	1	0	1
WBR	0	0	0	0	0	11	11	0	0	0	0	0	4	4
North Leg														
Approach	0	0	0	0	0	3	3	0	0	0	0	0	12	12
Departure	0	0	0	0	0	12	12	0	0	0	0	0	4	4
Total	0	0	0	0	0	15	15	0	0	0	0	0	16	16
South Leg														
Approach	6	1	7	0	7	0	7	3	0	3	0	3	0	3
Departure	6	0	6	0	6	0	6	11	1	12	0	12	0	12
Total	12	1	13	0	13	0	13	14	1	15	0	15	0	15
East Leg														
Approach	6	0	6	0	6	11	17	12	1	13	0	13	4	17
Departure	6	1	7	0	7	3	10	3	0	3	0	3	11	14
Total	12	1	13	0	13	14	27	15	1	16	0	16	15	31
West Leg														
Approach	3	0	3	0	3	1	4	0	0	0	0	0	0	0
Departure	3	0	3	0	3	0	3	1	0	1	0	1	1	2
Total	6	0	6	0	6	1	7	1	0	1	0	1	1	2
Total Approaches														
Approach	15	1	16	0	16	15	31	15	1	16	0	16	16	32
Departure	15	1	16	0	16	15	31	15	1	16	0	16	16	32
Total	30	2	32	0	32	30	62	30	2	32	0	32	32	64

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
7 . Dwy 3/Encilia Avenue														
NBL	1	0	1	0	1	0	1	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	15	2	17	0	17	0	17	3	0	3	0	3	0	3
SBL	0	0	0	0	0	5	5	0	0	0	0	0	17	17
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	6	1	7	0	7	3	10	3	0	3	0	3	11	14
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	6	1	7	0	7	0	7
WBT	5	1	6	0	6	11	17	12	1	13	0	13	4	17
WBR	0	0	0	0	0	15	15	0	0	0	0	0	6	6
North Leg														
Approach	0	0	0	0	0	5	5	0	0	0	0	0	17	17
Departure	0	0	0	0	0	15	15	0	0	0	0	0	6	6
Total	0	0	0	0	0	20	20	0	0	0	0	0	23	23
South Leg														
Approach	16	2	18	0	18	0	18	3	0	3	0	3	0	3
Departure	0	0	0	0	0	0	0	6	1	7	0	7	0	7
Total	16	2	18	0	18	0	18	9	1	10	0	10	0	10
East Leg														
Approach	5	1	6	0	6	26	32	18	2	20	0	20	10	30
Departure	21	3	24	0	24	8	32	6	0	6	0	6	28	34
Total	26	4	30	0	30	34	64	24	2	26	0	26	38	64
West Leg														
Approach	6	1	7	0	7	3	10	3	0	3	0	3	11	14
Departure	6	1	7	0	7	11	18	12	1	13	0	13	4	17
Total	12	2	14	0	14	14	28	15	1	16	0	16	15	31
Total Approaches														
Approach	27	4	31	0	31	34	65	24	2	26	0	26	38	64
Departure	27	4	31	0	31	34	65	24	2	26	0	26	38	64
Total	54	8	62	0	62	68	130	48	4	52	0	52	76	128

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
8 . Dwy 4-Shubert Street/Encilia Avenue														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	5	1	6	0	6	0	6	2	0	2	0	2	0	2
SBL	0	0	0	0	0	6	6	0	0	0	0	0	23	23
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	21	2	23	0	23	8	31	6	1	7	0	7	29	36
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	1	0	1	0	1	0	1	3	0	3	0	3	0	3
WBT	5	1	6	0	6	26	32	18	2	20	0	20	10	30
WBR	0	0	0	0	0	22	22	0	0	0	0	0	9	9
North Leg														
Approach	0	0	0	0	0	6	6	0	0	0	0	0	23	23
Departure	0	0	0	0	0	22	22	0	0	0	0	0	9	9
Total	0	0	0	0	0	28	28	0	0	0	0	0	32	32
South Leg														
Approach	5	1	6	0	6	0	6	2	0	2	0	2	0	2
Departure	1	0	1	0	1	0	1	3	0	3	0	3	0	3
Total	6	1	7	0	7	0	7	5	0	5	0	5	0	5
East Leg														
Approach	6	1	7	0	7	48	55	21	2	23	0	23	19	42
Departure	26	3	29	0	29	14	43	8	1	9	0	9	52	61
Total	32	4	36	0	36	62	98	29	3	32	0	32	71	103
West Leg														
Approach	21	2	23	0	23	8	31	6	1	7	0	7	29	36
Departure	5	1	6	0	6	26	32	18	2	20	0	20	10	30
Total	26	3	29	0	29	34	63	24	3	27	0	27	39	66
Total Approaches														
Approach	32	4	36	0	36	62	98	29	3	32	0	32	71	103
Departure	32	4	36	0	36	62	98	29	3	32	0	32	71	103
Total	64	8	72	0	72	124	196	58	6	64	0	64	142	206

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
9 . Dwy 5/Eucalyptus Avenue														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	5	5	0	0	0	0	0	18	18
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	55	6	61	15	76	55	131	56	6	62	15	77	114	191
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	84	9	93	16	109	73	182	55	6	61	21	82	53	135
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Leg														
Approach	0	0	0	0	0	5	5	0	0	0	0	0	18	18
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	5	5	0	0	0	0	0	18	18
East Leg														
Approach	84	9	93	16	109	73	182	55	6	61	21	82	53	135
Departure	55	6	61	15	76	60	136	56	6	62	15	77	132	209
Total	139	15	154	31	185	133	318	111	12	123	36	159	185	344
West Leg														
Approach	55	6	61	15	76	55	131	56	6	62	15	77	114	191
Departure	84	9	93	16	109	73	182	55	6	61	21	82	53	135
Total	139	15	154	31	185	128	313	111	12	123	36	159	167	326
Total Approaches														
Approach	139	15	154	31	185	133	318	111	12	123	36	159	185	344
Departure	139	15	154	31	185	133	318	111	12	123	36	159	185	344
Total	278	30	308	62	370	266	636	222	24	246	72	318	370	688

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
10 . Redlands Boulevard/SR-60 Westbound Ramps														
NBL	5	1	6	9	15	0	15	3	0	3	1	4	0	4
NBT	399	42	441	22	463	3	466	682	71	753	48	801	9	810
NBR	155	16	171	44	215	30	245	98	10	108	148	256	101	357
SBL	356	37	393	31	424	0	424	379	39	418	28	446	0	446
SBT	332	35	367	31	398	9	407	429	45	474	28	502	3	505
SBR	2	0	2	6	8	0	8	0	0	0	9	9	0	9
EBL	2	0	2	7	9	0	9	0	0	0	9	9	0	9
EBT	1	0	1	4	5	0	5	6	1	7	0	7	0	7
EBR	3	0	3	6	9	0	9	1	0	1	2	3	0	3
WBL	38	4	42	58	100	26	126	23	2	25	62	87	10	97
WBT	0	0	0	10	10	0	10	0	0	0	0	0	0	0
WBR	31	3	34	77	111	0	111	20	2	22	24	46	0	46
North Leg														
Approach	690	72	762	68	830	9	839	808	84	892	65	957	3	960
Departure	432	45	477	106	583	3	586	702	73	775	81	856	9	865
Total	1,122	117	1,239	174	1,413	12	1,425	1,510	157	1,667	146	1,813	12	1,825
South Leg														
Approach	559	59	618	75	693	33	726	783	81	864	197	1,061	110	1,171
Departure	373	39	412	95	507	35	542	453	47	500	92	592	13	605
Total	932	98	1,030	170	1,200	68	1,268	1,236	128	1,364	289	1,653	123	1,776
East Leg														
Approach	69	7	76	145	221	26	247	43	4	47	86	133	10	143
Departure	512	53	565	79	644	30	674	483	50	533	176	709	101	810
Total	581	60	641	224	865	56	921	526	54	580	262	842	111	953
West Leg														
Approach	6	0	6	17	23	0	23	7	1	8	11	19	0	19
Departure	7	1	8	25	33	0	33	3	0	3	10	13	0	13
Total	13	1	14	42	56	0	56	10	1	11	21	32	0	32
Total Approaches														
Approach	1,324	138	1,462	305	1,767	68	1,835	1,641	170	1,811	359	2,170	123	2,293
Departure	1,324	138	1,462	305	1,767	68	1,835	1,641	170	1,811	359	2,170	123	2,293
Total	2,648	276	2,924	610	3,534	136	3,670	3,282	340	3,622	718	4,340	246	4,586

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
11 . Redlands Boulevard/SR-60 Eastbound Ramps														
NBL	69	7	76	50	126	8	134	70	7	77	71	148	27	175
NBT	428	45	473	50	523	32	555	380	40	420	92	512	110	622
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	339	35	374	81	455	34	489	416	43	459	59	518	14	532
SBR	34	4	38	21	59	0	59	37	4	41	15	56	0	56
EBL	131	14	145	17	162	0	162	403	42	445	42	487	0	487
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	81	8	89	182	271	98	369	136	14	150	59	209	41	250
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	373	39	412	102	514	34	548	453	47	500	74	574	14	588
Departure	559	59	618	67	685	32	717	783	82	865	134	999	110	1,109
Total	932	98	1,030	169	1,199	66	1,265	1,236	129	1,365	208	1,573	124	1,697
South Leg														
Approach	497	52	549	100	649	40	689	450	47	497	163	660	137	797
Departure	420	43	463	263	726	132	858	552	57	609	118	727	55	782
Total	917	95	1,012	363	1,375	172	1,547	1,002	104	1,106	281	1,387	192	1,579
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg														
Approach	212	22	234	199	433	98	531	539	56	595	101	696	41	737
Departure	103	11	114	71	185	8	193	107	11	118	86	204	27	231
Total	315	33	348	270	618	106	724	646	67	713	187	900	68	968
Total Approaches														
Approach	1,082	113	1,195	401	1,596	172	1,768	1,442	150	1,592	338	1,930	192	2,122
Departure	1,082	113	1,195	401	1,596	172	1,768	1,442	150	1,592	338	1,930	192	2,122
Total	2,164	226	2,390	802	3,192	344	3,536	2,884	300	3,184	676	3,860	384	4,244

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
12 . Redlands Boulevard/Eucalyptus Avenue														
NBL	13	1	14	1	15	9	24	13	1	14	1	15	27	42
NBT	438	46	484	68	552	5	557	391	41	432	45	477	19	496
NBR	0	0	0	80	80	1	81	0	0	0	20	20	3	23
SBL	0	0	0	230	230	0	230	0	0	0	70	70	0	70
SBT	349	36	385	22	407	70	477	510	53	563	76	639	28	667
SBR	71	7	78	21	99	62	161	42	4	46	20	66	25	91
EBL	43	4	47	14	61	34	95	34	4	38	12	50	117	167
EBT	0	0	0	1	1	1	2	0	0	0	2	2	2	4
EBR	12	1	13	1	14	26	40	22	2	24	5	29	12	41
WBL	0	0	0	20	20	3	23	0	0	0	110	110	1	111
WBT	0	0	0	1	1	2	3	0	0	0	1	1	1	2
WBR	16	2	18	43	61	0	61	24	2	26	276	302	0	302
North Leg														
Approach	420	43	463	273	736	132	868	552	57	609	166	775	53	828
Departure	497	52	549	125	674	39	713	449	47	496	333	829	136	965
Total	917	95	1,012	398	1,410	171	1,581	1,001	104	1,105	499	1,604	189	1,793
South Leg														
Approach	451	47	498	149	647	15	662	404	42	446	66	512	49	561
Departure	361	37	398	43	441	99	540	532	55	587	191	778	41	819
Total	812	84	896	192	1,088	114	1,202	936	97	1,033	257	1,290	90	1,380
East Leg														
Approach	16	2	18	64	82	5	87	24	2	26	387	413	2	415
Departure	0	0	0	311	311	2	313	0	0	0	92	92	5	97
Total	16	2	18	375	393	7	400	24	2	26	479	505	7	512
West Leg														
Approach	55	5	60	16	76	61	137	56	6	62	19	81	131	212
Departure	84	8	92	23	115	73	188	55	5	60	22	82	53	135
Total	139	13	152	39	191	134	325	111	11	122	41	163	184	347
Total Approaches														
Approach	942	97	1,039	502	1,541	213	1,754	1,036	107	1,143	638	1,781	235	2,016
Departure	942	97	1,039	502	1,541	213	1,754	1,036	107	1,143	638	1,781	235	2,016
Total	1,884	194	2,078	1,004	3,082	426	3,508	2,072	214	2,286	1,276	3,562	470	4,032

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
13 . Redlands Boulevard/Dwy 6														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	451	47	498	149	647	16	663	404	42	446	66	512	50	562
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	361	38	399	43	442	85	527	532	55	587	191	778	36	814
SBR	0	0	0	0	0	14	14	0	0	0	0	0	6	6
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	4	4	0	0	0	0	0	13	13
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	361	38	399	43	442	99	541	532	55	587	191	778	42	820
Departure	451	47	498	149	647	16	663	404	42	446	66	512	50	562
Total	812	85	897	192	1,089	115	1,204	936	97	1,033	257	1,290	92	1,382
South Leg														
Approach	451	47	498	149	647	16	663	404	42	446	66	512	50	562
Departure	361	38	399	43	442	89	531	532	55	587	191	778	49	827
Total	812	85	897	192	1,089	105	1,194	936	97	1,033	257	1,290	99	1,389
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg														
Approach	0	0	0	0	0	4	4	0	0	0	0	0	13	13
Departure	0	0	0	0	0	14	14	0	0	0	0	0	6	6
Total	0	0	0	0	0	18	18	0	0	0	0	0	19	19
Total Approaches														
Approach	812	85	897	192	1,089	119	1,208	936	97	1,033	257	1,290	105	1,395
Departure	812	85	897	192	1,089	119	1,208	936	97	1,033	257	1,290	105	1,395
Total	1,624	170	1,794	384	2,178	238	2,416	1,872	194	2,066	514	2,580	210	2,790

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
14 . Redlands Boulevard/Dwy 7														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	451	47	498	149	647	16	663	404	42	446	66	512	50	562
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	361	38	399	43	442	26	468	532	55	587	191	778	24	802
SBR	0	0	0	0	0	62	62	0	0	0	0	0	25	25
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	4	4	0	0	0	0	0	13	13
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	361	38	399	43	442	88	530	532	55	587	191	778	49	827
Departure	451	47	498	149	647	16	663	404	42	446	66	512	50	562
Total	812	85	897	192	1,089	104	1,193	936	97	1,033	257	1,290	99	1,389
South Leg														
Approach	451	47	498	149	647	16	663	404	42	446	66	512	50	562
Departure	361	38	399	43	442	30	472	532	55	587	191	778	37	815
Total	812	85	897	192	1,089	46	1,135	936	97	1,033	257	1,290	87	1,377
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg														
Approach	0	0	0	0	0	4	4	0	0	0	0	0	13	13
Departure	0	0	0	0	0	62	62	0	0	0	0	0	25	25
Total	0	0	0	0	0	66	66	0	0	0	0	0	38	38
Total Approaches														
Approach	812	85	897	192	1,089	108	1,197	936	97	1,033	257	1,290	112	1,402
Departure	812	85	897	192	1,089	108	1,197	936	97	1,033	257	1,290	112	1,402
Total	1,624	170	1,794	384	2,178	216	2,394	1,872	194	2,066	514	2,580	224	2,804

Table C-5: Opening Year (2024) With Project Peak Hour Volume Summary

	AM Peak Hour							PM Peak Hour						
	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project	Exist PCE Volume	Growth	OY Back.	Cumul. Pr.	OY NP	Project Trips	OY With Project
15 . Redlands Boulevard/Encilia Avenue														
NBL	0	0	0	0	0	26	26	0	0	0	0	0	10	10
NBT	433	45	478	149	627	2	629	404	42	446	66	512	1	513
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	2	2	0	0	0	0	0	7	7
SBT	347	36	383	43	426	6	432	506	53	559	191	750	21	771
SBR	5	1	6	0	6	22	28	17	2	19	0	19	9	28
EBL	22	2	24	0	24	12	36	8	1	9	0	9	42	51
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	2	0	2	0	2	3	5	0	0	0	0	0	9	9
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	352	37	389	43	432	30	462	523	55	578	191	769	37	806
Departure	455	47	502	149	651	14	665	412	43	455	66	521	43	564
Total	807	84	891	192	1,083	44	1,127	935	98	1,033	257	1,290	80	1,370
South Leg														
Approach	433	45	478	149	627	28	655	404	42	446	66	512	11	523
Departure	349	36	385	43	428	9	437	506	53	559	191	750	30	780
Total	782	81	863	192	1,055	37	1,092	910	95	1,005	257	1,262	41	1,303
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	2	2	0	0	0	0	0	7	7
Total	0	0	0	0	0	2	2	0	0	0	0	0	7	7
West Leg														
Approach	24	2	26	0	26	15	41	8	1	9	0	9	51	60
Departure	5	1	6	0	6	48	54	17	2	19	0	19	19	38
Total	29	3	32	0	32	63	95	25	3	28	0	28	70	98
Total Approaches														
Approach	809	84	893	192	1,085	73	1,158	935	98	1,033	257	1,290	99	1,389
Departure	809	84	893	192	1,085	73	1,158	935	98	1,033	257	1,290	99	1,389
Total	1,618	168	1,786	384	2,170	146	2,316	1,870	196	2,066	514	2,580	198	2,778

Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions

			Existing	Existing	Base Yr.	Fut. Yr.	Base to Future Year		2019 to	2040
			2019	2019	Modeled	Modeled	Pk. Per.	Pk. Hr.	Link Vol	Link
			Volume	Link	Volume	Volume	Change	Change	Growth ¹	Volume

1 Moreno Beach Dr/SR-60 Westbound Ramps

AM Peak Hour

Northbound	Left	0	Approach	546	1,602	2,571	969	368	276	822
	Through	206	Departure	294	740	1,963	1,223	465	349	643
	Right	340								
Southbound	Left	80	Approach	292	807	1,983	1,176	447	335	627
	Through	212	Departure	210	893	1,644	751	285	214	424
	Right	0								
Eastbound	Left	0	Approach	0	0	0	0	0	0	0
	Through	0	Departure	0	0	0	0	0	0	0
	Right	0								
Westbound	Left	82	Approach	86	162	472	310	118	88	174
	Through	0	Departure	420	938	1,419	481	183	137	557
	Right	4								

PM Peak Hour

Northbound	Left	0	Approach	655	2,153	4,400	2,247	629	472	1,127
	Through	239	Departure	325	2,110	3,341	1,231	345	259	584
	Right	416								
Southbound	Left	36	Approach	273	1,654	2,924	1,270	356	267	540
	Through	237	Departure	247	1,302	2,957	1,655	463	348	595
	Right	0								
Eastbound	Left	0	Approach	0	0	0	0	0	0	0
	Through	0	Departure	0	0	0	0	0	0	0
	Right	0								
Westbound	Left	88	Approach	96	631	1,345	714	200	150	246
	Through	0	Departure	452	1,026	2,371	1,345	377	282	734
	Right	8								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing 2019 Volume		Existing 2019 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year		2019 to 2040 Link Vol Growth ¹	2040 Link Volume
							Pk. Per.	Pk. Hr.		

2 Moreno Beach Dr/SR-60 Eastbound Ramps

AM Peak Hour

Northbound	Left	0	Approach	589	1,969	3,143	1,174	446	335	924
	Through	478	Departure	663	1,205	2,680	1,475	561	420	1,083
	Right	111								
Southbound	Left	12	Approach	298	740	1,963	1,223	465	349	647
	Through	286	Departure	520	1,602	2,571	969	368	276	796
	Right	0								
Eastbound	Left	42	Approach	420	596	1,448	852	324	243	663
	Through	1	Departure	0	0	0	0	0	0	0
	Right	377								
Westbound	Left	0	Approach	0	0	0	0	0	0	0
	Through	0	Departure	124	498	1,302	804	306	229	353
	Right	0								

PM Peak Hour

Northbound	Left	0	Approach	772	2,345	5,327	2,982	835	626	1,398
	Through	608	Departure	827	3,508	5,717	2,209	619	464	1,291
	Right	164								
Southbound	Left	8	Approach	322	2,110	3,341	1,231	345	259	581
	Through	314	Departure	672	2,153	4,400	2,247	629	472	1,144
	Right	0								
Eastbound	Left	64	Approach	578	1,591	3,315	1,724	483	362	940
	Through	1	Departure	0	0	0	0	0	0	0
	Right	513								
Westbound	Left	0	Approach	0	0	0	0	0	0	0
	Through	0	Departure	173	384	1,866	1,482	415	311	484
	Right	0								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

	Existing 2019 Volume	Existing 2019 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year		2019 to 2040 Link Vol Growth ¹	2040 Link Volume
					Pk. Per. Change	Pk. Hr. Change		

3 Moreno Beach Dr/Eucalyptus Avenue

AM Peak Hour

Northbound	Left	93	Approach	494	981	1,276	295	112	84	578
	Through	384	Departure	484	642	1,085	443	168	126	610
	Right	17								
Southbound	Left	121	Approach	657	1,205	2,680	1,475	561	420	1,077
	Through	388	Departure	584	1,969	3,143	1,174	446	335	919
	Right	148								
Eastbound	Left	171	Approach	311	773	2,206	1,433	545	408	719
	Through	63	Departure	274	347	2,121	1,774	674	506	780
	Right	77								
Westbound	Left	19	Approach	81	1	897	896	340	255	336
	Through	33	Departure	201	3	711	708	269	202	403
	Right	29								

PM Peak Hour

Northbound	Left	113	Approach	432	1,097	2,490	1,393	390	293	725
	Through	314	Departure	701	1,893	3,077	1,184	332	249	950
	Right	5								
Southbound	Left	47	Approach	813	3,087	5,717	2,630	736	552	1,365
	Through	534	Departure	745	1,915	5,327	3,412	955	717	1,462
	Right	232								
Eastbound	Left	323	Approach	494	818	4,153	3,335	934	700	1,194
	Through	37	Departure	401	1,194	3,737	2,543	712	534	935
	Right	134								
Westbound	Left	33	Approach	197	10	1,794	1,784	500	375	572
	Through	56	Departure	89	3	2,013	2,010	563	422	511
	Right	108								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing	Existing	Base Yr.	Fut. Yr.	Base to Future Year		2019 to	2040
		2019	2019	Modeled	Modeled	Pk. Per.	Pk. Hr.	Link Vol	Link
		Volume	Link	Volume	Volume	Change	Change	Growth ¹	Volume

4 Auto Mall Dr/Eucalyptus Avenue

AM Peak Hour

Northbound	Left	26	Approach	39	0	0	0	0	0	39
	Through	2	Departure	51	0	0	0	0	0	51
	Right	11								
Southbound	Left	0	Approach	5	0	0	0	0	0	5
	Through	1	Departure	14	0	0	0	0	0	14
	Right	4								
Eastbound	Left	10	Approach	117	3	711	708	269	202	319
	Through	68	Departure	93	1	897	896	340	255	348
	Right	39								
Westbound	Left	11	Approach	76	3	897	894	340	255	331
	Through	63	Departure	79	0	711	711	270	203	282
	Right	2								

PM Peak Hour

Northbound	Left	55	Approach	66	0	0	0	0	0	66
	Through	5	Departure	42	0	0	0	0	0	42
	Right	6								
Southbound	Left	0	Approach	21	0	0	0	0	0	21
	Through	5	Departure	18	0	0	0	0	0	18
	Right	16								
Eastbound	Left	12	Approach	91	3	2,013	2,010	563	422	513
	Through	54	Departure	157	10	1,794	1,784	500	375	532
	Right	25								
Westbound	Left	12	Approach	99	10	1,794	1,784	500	375	474
	Through	86	Departure	60	3	2,013	2,010	563	422	482
	Right	1								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions

			Existing	Existing	Base Yr.	Fut. Yr.	Base to Future Year		2019 to	2040
			2019	2019	Modeled	Modeled	Pk. Per.	Pk. Hr.	Link Vol	Link
			Volume	Link	Volume	Volume	Change	Change	Growth ¹	Volume

10 Redlands Boulevard/SR-60 Westbound Ramps

AM Peak Hour

Northbound	Left	3	Approach	526	1,419	2,582	1,163	442	331	857
	Through	382	Departure	361	609	2,244	1,635	621	466	827
	Right	141								
Southbound	Left	350	Approach	673	910	2,170	1,260	479	359	1,032
	Through	321	Departure	412	1,301	2,202	901	342	257	669
	Right	2								
Eastbound	Left	2	Approach	6	0	0	0	0	0	6
	Through	1	Departure	5	0	0	0	0	0	5
	Right	3								
Westbound	Left	37	Approach	65	197	1,107	910	346	259	324
	Through	0	Departure	492	615	1,412	797	303	227	719
	Right	28								

PM Peak Hour

Northbound	Left	3	Approach	766	1,808	4,061	2,253	631	473	1,239
	Through	668	Departure	444	1,750	3,852	2,102	589	441	885
	Right	95								
Southbound	Left	370	Approach	791	2,186	2,932	746	209	157	948
	Through	421	Departure	688	1,737	3,354	1,617	453	340	1,028
	Right	0								
Eastbound	Left	0	Approach	4	0	0	0	0	0	4
	Through	3	Departure	3	0	0	0	0	0	3
	Right	1								
Westbound	Left	22	Approach	42	288	1,566	1,278	358	268	310
	Through	0	Departure	468	795	1,353	558	156	117	585
	Right	20								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing 2019 Volume	Existing 2019 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year Pk. Per. Pk. Hr. Change Change		2019 to 2040 Link Vol Growth ¹	2040 Link Volume
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11 Redlands Boulevard/SR-60 Eastbound Ramps

AM Peak Hour

Northbound	Left	63	Approach	471	1,204	2,294	1,090	414	311	782
	Through	408	Departure	401	637	2,660	2,023	769	577	978
	Right	0								
Southbound	Left	0	Approach	365	609	2,244	1,635	621	466	831
	Through	335	Departure	532	1,419	2,582	1,163	442	331	863
	Right	30								
Eastbound	Left	124	Approach	190	464	1,229	765	291	218	408
	Through	0	Departure	93	222	526	304	116	87	180
	Right	66								
Westbound	Left	0	Approach	0	0	0	0	0	0	0
	Through	0	Departure	0	0	0	0	0	0	0
	Right	0								

PM Peak Hour

Northbound	Left	68	Approach	445	1,419	3,676	2,257	632	474	919
	Through	377	Departure	524	1,945	5,645	3,700	1,036	777	1,301
	Right	0								
Southbound	Left	0	Approach	426	1,750	3,852	2,102	589	441	867
	Through	393	Departure	776	1,808	4,061	2,253	631	473	1,249
	Right	33								
Eastbound	Left	399	Approach	530	1,043	2,916	1,873	524	393	923
	Through	0	Departure	101	458	738	280	78	59	160
	Right	131								
Westbound	Left	0	Approach	0	0	0	0	0	0	0
	Through	0	Departure	0	0	0	0	0	0	0
	Right	0								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing 2019 Volume		Existing 2019 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year Pk. Per. Pk. Hr. Change Change		2019 to 2040 Link Vol Growth ¹	2040 Link Volume
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12 Redlands Boulevard/Eucalyptus Avenue

AM Peak Hour

Northbound	Left	13	Approach	449	1,182	2,018	836	318	238	687
	Through	436	Departure	350	624	2,280	1,656	629	472	822
	Right	0								
Southbound	Left	0	Approach	396	637	2,660	2,023	769	577	973
	Through	339	Departure	476	1,204	2,294	1,090	414	311	787
	Right	57								
Eastbound	Left	24	Approach	35	3	436	433	165	123	158
	Through	0	Departure	70	1	804	803	305	229	299
	Right	11								
Westbound	Left	0	Approach	16	32	1,484	1,452	552	414	430
	Through	0	Departure	0	25	1,219	1,194	454	340	340
	Right	16								

PM Peak Hour

Northbound	Left	13	Approach	411	1,384	4,445	3,061	857	643	1,054
	Through	398	Departure	514	1,904	4,610	2,706	758	568	1,082
	Right	0								
Southbound	Left	0	Approach	532	1,945	5,645	3,700	1,036	777	1,309
	Through	494	Departure	454	1,419	3,676	2,257	632	474	928
	Right	38								
Eastbound	Left	31	Approach	51	3	1,703	1,700	476	357	408
	Through	0	Departure	51	10	1,201	1,191	333	250	301
	Right	20								
Westbound	Left	0	Approach	25	54	2,612	2,558	716	537	562
	Through	0	Departure	0	53	4,918	4,865	1,362	1,022	1,022
	Right	25								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

**Table C-6: Forecast Link Volume Worksheet
General Plan Build-Out (2040) Conditions**

		Existing 2019 Volume		Existing 2019 Link Volume	Base Yr. Modeled Pk. Per. Volume	Fut. Yr. Modeled Pk. Per. Volume	Base to Future Year Pk. Per. Pk. Hr. Change Change		2019 to 2040 Link Vol Growth ¹	2040 Link Volume
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15 Redlands Boulevard/Encilia Avenue

AM Peak Hour

Northbound	Left	0	Approach	427	1,075	1,343	268	102	76	503
	Through	427	Departure	343	599	1,396	797	303	227	570
	Right	0								
Southbound	Left	0	Approach	346	624	2,280	1,656	629	472	818
	Through	341	Departure	448	1,182	2,018	836	318	238	686
	Right	5								
Eastbound	Left	21	Approach	23	145	383	238	90	68	91
	Through	0	Departure	5	62	585	523	199	149	154
	Right	2								
Westbound	Left	0	Approach	0	20	512	492	187	140	140
	Through	0	Departure	0	22	520	498	189	142	142
	Right	0								

PM Peak Hour

Northbound	Left	0	Approach	401	1,303	2,521	1,218	341	256	657
	Through	401	Departure	497	1,565	2,538	973	272	204	701
	Right	0								
Southbound	Left	0	Approach	513	1,904	4,610	2,706	758	568	1,081
	Through	497	Departure	409	1,384	4,445	3,061	857	643	1,052
	Right	16								
Eastbound	Left	8	Approach	8	129	1,618	1,489	417	313	321
	Through	0	Departure	16	395	1,302	907	254	190	206
	Right	0								
Westbound	Left	0	Approach	0	42	1,159	1,117	313	235	235
	Through	0	Departure	0	33	1,623	1,590	445	334	334
	Right	0								

¹ Modeled base year (2012) to modeled future year (2040) conditions represent 28 years of traffic growth. Since it is 21 years from 2019 to 2040 the growth represents 0.75 % of the growth between 2012 and 2040 model years. Also the a.m. peak hour is 38% of the peak period and the p.m. peak hour is 28 percent of the peak period.

Table C-7: General Plan Build-Out (2040) PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol	
1 . Moreno Beach Dr/SR-60 Westbound Ramps													
NBL	0	0.0%	0	0	0	0	0	0.0%	0	0	0	0	0
NBT	413	1.9%	405	8	12	417	0	538	1.3%	531	7	12	543
NBR	410	2.6%	399	11	23	422	0	603	2.9%	586	17	38	624
SBL	147	1.3%	145	2	4	149	0	132	0.0%	132	0	0	132
SBT	479	1.4%	472	7	12	484	0	399	0.8%	396	3	5	401
SBR	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
EBL	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
EBT	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
EBR	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
WBL	163	3.7%	157	6	10	167	0	185	5.7%	174	11	22	196
WBT	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
WBR	11	0.0%	11	0	0	11	0	57	0.0%	57	0	0	57
North Leg													
Approach	626		617	9	16	633	531		528	3	5	533	
Departure	424		416	8	12	428	595		588	7	12	600	
Total	1,050		1,033	17	28	1,061	1,126		1,116	10	17	1,133	
South Leg													
Approach	823		804	19	35	839	1,141		1,117	24	50	1,167	
Departure	642		629	13	22	651	584		570	14	27	597	
Total	1,465		1,433	32	57	1,490	1,725		1,687	38	77	1,764	
East Leg													
Approach	174		168	6	10	178	242		231	11	22	253	
Departure	557		544	13	27	571	735		718	17	38	756	
Total	731		712	19	37	749	977		949	28	60	1,009	
West Leg													
Approach	0		0	0	0	0	0		0	0	0	0	
Departure	0		0	0	0	0	0		0	0	0	0	
Total	0		0	0	0	0	0		0	0	0	0	
Total Approaches													
Approach	1,623		1,589	34	61	1,650	1,914		1,876	38	77	1,953	
Departure	1,623		1,589	34	61	1,650	1,914		1,876	38	77	1,953	
Total	3,246		3,178	68	122	3,300	3,828		3,752	76	154	3,906	

Table C-7: General Plan Build-Out (2040) PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	
2 . Moreno Beach Dr/SR-60 Eastbound Ramps													
NBL	0	0.0%	0	0	0	0	0	0.0%	0	0	0	0	0
NBT	675	3.6%	651	24	44	695	0	984	2.5%	960	24	50	1,010
NBR	267	9.0%	243	24	48	291	0	442	3.0%	429	13	23	452
SBL	81	8.3%	74	7	14	88	0	38	0.0%	38	0	0	38
SBT	555	2.1%	543	12	20	563	0	531	2.5%	517	14	26	543
SBR	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
EBL	121	0.0%	121	0	0	121	0	160	1.6%	157	3	6	163
EBT	5	100.0%	0	5	10	10	0	4	100.0%	0	4	8	8
EBR	529	5.0%	502	27	60	562	0	760	1.9%	745	15	33	778
WBL	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
WBT	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
WBR	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
North Leg													
Approach	636		617	19	34	651	569		555	14	26	581	
Departure	796		772	24	44	816	1,144		1,117	27	56	1,173	
Total	1,432		1,389	43	78	1,467	1,713		1,672	41	82	1,754	
South Leg													
Approach	942		894	48	92	986	1,426		1,389	37	73	1,462	
Departure	1,084		1,045	39	80	1,125	1,291		1,262	29	59	1,321	
Total	2,026		1,939	87	172	2,111	2,717		2,651	66	132	2,783	
East Leg													
Approach	0		0	0	0	0	0		0	0	0	0	
Departure	353		317	36	72	389	484		467	17	31	498	
Total	353		317	36	72	389	484		467	17	31	498	
West Leg													
Approach	655		623	32	70	693	924		902	22	47	949	
Departure	0		0	0	0	0	0		0	0	0	0	
Total	655		623	32	70	693	924		902	22	47	949	
Total Approaches													
Approach	2,233		2,134	99	196	2,330	2,919		2,846	73	146	2,992	
Departure	2,233		2,134	99	196	2,330	2,919		2,846	73	146	2,992	
Total	4,466		4,268	198	392	4,660	5,838		5,692	146	292	5,984	

Table C-7: General Plan Build-Out (2040) PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol	
3 . Moreno Beach Dr/Eucalyptus Avenue													
NBL	164	2.2%	160	4	6	166	0	234	0.9%	232	2	4	236
NBT	396	2.9%	385	11	20	405	0	467	1.3%	461	6	12	473
NBR	19	0.0%	19	0	0	19	0	24	0.0%	24	0	0	24
SBL	217	6.6%	203	14	40	243	0	229	12.8%	200	29	68	268
SBT	438	3.9%	421	17	28	449	0	646	1.3%	638	8	14	652
SBR	423	1.4%	417	6	15	432	0	491	2.2%	480	11	22	502
EBL	424	7.0%	394	30	55	449	0	704	1.9%	691	13	22	713
EBT	167	3.2%	162	5	8	170	0	258	2.7%	251	7	21	272
EBR	129	5.2%	122	7	11	133	0	233	1.5%	230	3	5	235
WBL	44	5.3%	42	2	4	46	0	71	0.0%	71	0	0	71
WBT	193	0.0%	193	0	0	193	0	210	1.8%	206	4	8	214
WBR	99	20.7%	79	20	43	122	0	291	9.3%	264	27	62	326
North Leg													
Approach	1,078		1,041	37	83	1,124		1,366		1,318	48	104	1,422
Departure	919		858	61	118	976		1,462		1,416	46	96	1,512
Total	1,997		1,899	98	201	2,100		2,828		2,734	94	200	2,934
South Leg													
Approach	579		564	15	26	590		725		717	8	16	733
Departure	611		585	26	43	628		950		939	11	19	958
Total	1,190		1,149	41	69	1,218		1,675		1,656	19	35	1,691
East Leg													
Approach	336		314	22	47	361		572		541	31	70	611
Departure	403		384	19	48	432		511		475	36	89	564
Total	739		698	41	95	793		1,083		1,016	67	159	1,175
West Leg													
Approach	720		678	42	74	752		1,195		1,172	23	48	1,220
Departure	780		770	10	21	791		935		918	17	34	952
Total	1,500		1,448	52	95	1,543		2,130		2,090	40	82	2,172
Total Approaches													
Approach	2,713		2,597	116	230	2,827		3,858		3,748	110	238	3,986
Departure	2,713		2,597	116	230	2,827		3,858		3,748	110	238	3,986
Total	5,426		5,194	232	460	5,654		7,716		7,496	220	476	7,972

Table C-7: General Plan Build-Out (2040) PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	
4 . Auto Mall Dr/Eucalyptus Avenue													
NBL	27	0.0%	27	0	0	27	0	55	5.5%	52	3	5	57
NBT	1	0.0%	1	0	0	1	0	1	0.0%	1	0	0	1
NBR	12	0.0%	12	0	0	12	0	9	0.0%	9	0	0	9
SBL	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
SBT	0	0.0%	0	0	0	0	0	1	0.0%	1	0	0	1
SBR	5	0.0%	5	0	0	5	0	20	0.0%	20	0	0	20
EBL	11	0.0%	11	0	0	11	0	16	0.0%	16	0	0	16
EBT	270	8.8%	246	24	68	314	0	473	16.7%	394	79	184	578
EBR	37	0.0%	37	0	0	37	0	28	16.0%	24	4	6	30
WBL	14	0.0%	14	0	0	14	0	13	0.0%	13	0	0	13
WBT	317	9.5%	287	30	75	362	0	457	10.5%	409	48	96	505
WBR	3	0.0%	3	0	0	3	0	1	0.0%	1	0	0	1
North Leg													
Approach	5		5	0	0	5		21		21	0	0	21
Departure	15		15	0	0	15		18		18	0	0	18
Total	20		20	0	0	20		39		39	0	0	39
South Leg													
Approach	40		40	0	0	40		65		62	3	5	67
Departure	51		51	0	0	51		42		38	4	6	44
Total	91		91	0	0	91		107		100	7	11	111
East Leg													
Approach	334		304	30	75	379		471		423	48	96	519
Departure	282		258	24	68	326		482		403	79	184	587
Total	616		562	54	143	705		953		826	127	280	1,106
West Leg													
Approach	318		294	24	68	362		517		434	83	190	624
Departure	349		319	30	75	394		532		481	51	101	582
Total	667		613	54	143	756		1,049		915	134	291	1,206
Total Approaches													
Approach	697		643	54	143	786		1,074		940	134	291	1,231
Departure	697		643	54	143	786		1,074		940	134	291	1,231
Total	1,394		1,286	108	286	1,572		2,148		1,880	268	582	2,462

Table C-7: General Plan Build-Out (2040) PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck Truck	Truck PCE	Total PCE Vol	
10 . Redlands Boulevard/SR-60 Westbound Ramps													
NBL	4	33.3%	3	1	3	6	0	3	0.0%	3	0	0	3
NBT	575	2.9%	558	17	37	595	0	960	2.7%	934	26	46	980
NBR	277	7.1%	257	20	46	303	0	260	3.2%	252	8	16	268
SBL	441	1.4%	435	6	13	448	0	323	3.0%	313	10	18	331
SBT	591	2.8%	574	17	32	606	0	638	2.4%	623	15	27	650
SBR	1	0.0%	1	0	0	1	0	0	0.0%	0	0	0	0
EBL	1	0.0%	1	0	0	1	0	0	0.0%	0	0	0	0
EBT	1	0.0%	1	0	0	1	0	3	66.7%	1	2	5	6
EBR	4	0.0%	4	0	0	4	0	1	0.0%	1	0	0	1
WBL	232	2.7%	226	6	12	238	0	246	4.5%	235	11	22	257
WBT	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
WBR	92	7.1%	85	7	18	103	0	68	0.0%	68	0	0	68
North Leg													
Approach	1,033		1,010	23	45	1,055	961		936	25	45	981	
Departure	668		644	24	55	699	1,028		1,002	26	46	1,048	
Total	1,701		1,654	47	100	1,754	1,989		1,938	51	91	2,029	
South Leg													
Approach	856		818	38	86	904	1,223		1,189	34	62	1,251	
Departure	827		804	23	44	848	885		859	26	49	908	
Total	1,683		1,622	61	130	1,752	2,108		2,048	60	111	2,159	
East Leg													
Approach	324		311	13	30	341	314		303	11	22	325	
Departure	719		693	26	59	752	586		566	20	39	605	
Total	1,043		1,004	39	89	1,093	900		869	31	61	930	
West Leg													
Approach	6		6	0	0	6	4		2	2	5	7	
Departure	5		4	1	3	7	3		3	0	0	3	
Total	11		10	1	3	13	7		5	2	5	10	
Total Approaches													
Approach	2,219		2,145	74	161	2,306	2,502		2,430	72	134	2,564	
Departure	2,219		2,145	74	161	2,306	2,502		2,430	72	134	2,564	
Total	4,438		4,290	148	322	4,612	5,004		4,860	144	268	5,128	

Table C-7: General Plan Build-Out (2040) PCE Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total PCE Vol	
11 . Redlands Boulevard/SR-60 Eastbound Ramps													
NBL	126	7.9%	116	10	22	138	0	135	1.5%	133	2	6	139
NBT	648	3.7%	624	24	56	680	0	773	1.3%	763	10	18	781
NBR	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
SBL	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
SBT	786	1.8%	772	14	23	795	0	854	1.8%	839	15	26	865
SBR	53	6.7%	49	4	12	61	0	24	3.0%	23	1	3	26
EBL	216	3.2%	209	7	19	228	0	476	2.0%	466	10	18	484
EBT	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
EBR	192	12.1%	169	23	66	235	0	447	3.1%	433	14	32	465
WBL	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
WBT	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
WBR	0	0.0%	0	0	0	0	0	0	0.0%	0	0	0	0
North Leg													
Approach	839		821	18	35	856		878		862	16	29	891
Departure	864		833	31	75	908		1,249		1,229	20	36	1,265
Total	1,703		1,654	49	110	1,764		2,127		2,091	36	65	2,156
South Leg													
Approach	774		740	34	78	818		908		896	12	24	920
Departure	978		941	37	89	1,030		1,301		1,272	29	58	1,330
Total	1,752		1,681	71	167	1,848		2,209		2,168	41	82	2,250
East Leg													
Approach	0		0	0	0	0		0		0	0	0	0
Departure	0		0	0	0	0		0		0	0	0	0
Total	0		0	0	0	0		0		0	0	0	0
West Leg													
Approach	408		378	30	85	463		923		899	24	50	949
Departure	179		165	14	34	199		159		156	3	9	165
Total	587		543	44	119	662		1,082		1,055	27	59	1,114
Total Approaches													
Approach	2,021		1,939	82	198	2,137		2,709		2,657	52	103	2,760
Departure	2,021		1,939	82	198	2,137		2,709		2,657	52	103	2,760
Total	4,042		3,878	164	396	4,274		5,418		5,314	104	206	5,520

Table C-7: General Plan Build-Out (2040) PCE Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour					Total PCE Vol		
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Truck PCE			
12 . Redlands Boulevard/Eucalyptus Avenue													
NBL	60	0.0%	60	0	0	60	0	88	0.0%	88	0	0	88
NBT	476	2.1%	466	10	18	484	0	489	1.0%	484	5	8	492
NBR	142	0.0%	142	0	0	142	0	470	0.0%	470	0	0	470
SBL	89	0.0%	89	0	0	89	0	226	0.0%	226	0	0	226
SBT	735	2.1%	720	15	26	746	0	971	2.4%	947	24	44	991
SBR	163	12.3%	143	20	57	200	0	123	7.9%	113	10	20	133
EBL	20	45.8%	11	9	25	36	0	26	6.5%	24	2	6	30
EBT	109	0.0%	109	0	0	109	0	325	0.0%	325	0	0	325
EBR	29	9.1%	26	3	6	32	0	56	10.0%	50	6	12	62
WBL	58	0.0%	58	0	0	58	0	55	0.0%	55	0	0	55
WBT	76	0.0%	76	0	0	76	0	90	0.0%	90	0	0	90
WBR	291	0.0%	291	0	0	291	0	413	0.0%	413	0	0	413
North Leg													
Approach	987		952	35	83	1,035	1,320		1,286	34	64		1,350
Departure	787		768	19	43	811	928		921	7	14		935
Total	1,774		1,720	54	126	1,846	2,248		2,207	41	78		2,285
South Leg													
Approach	678		668	10	18	686	1,047		1,042	5	8		1,050
Departure	822		804	18	32	836	1,082		1,052	30	56		1,108
Total	1,500		1,472	28	50	1,522	2,129		2,094	35	64		2,158
East Leg													
Approach	425		425	0	0	425	558		558	0	0		558
Departure	340		340	0	0	340	1,021		1,021	0	0		1,021
Total	765		765	0	0	765	1,579		1,579	0	0		1,579
West Leg													
Approach	158		146	12	31	177	407		399	8	18		417
Departure	299		279	20	57	336	301		291	10	20		311
Total	457		425	32	88	513	708		690	18	38		728
Total Approaches													
Approach	2,248		2,191	57	132	2,323	3,332		3,285	47	90		3,375
Departure	2,248		2,191	57	132	2,323	3,332		3,285	47	90		3,375
Total	4,496		4,382	114	264	4,646	6,664		6,570	94	180		6,750

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
1 Moreno Beach Dr/SR-60 Westbound Ramps						
	0		0	0		0
	486	90	576	592	138	730
	519	96	615	624	145	769
	149		149	132		132
	484	107	591	401	180	581
	0		0	0		0
	0		0	0		0
	0		0	0		0
	0		0	0		0
	222	49	271	261	118	379
	0		0	0		0
	11		11	57		57
Approach	633	107	740	533	180	713
Departure	497	90	587	649	138	787
Total	1,130	197	1,327	1,182	318	1,500
Approach	1,005	186	1,191	1,216	283	1,499
Departure	706	156	862	662	298	960
Total	1,710	342	2,052	1,879	581	2,460
Approach	233	49	282	318	118	436
Departure	668	96	764	756	145	901
Total	900	145	1,045	1,074	263	1,337
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Approach	1,870	342	2,212	2,068	581	2,649
Departure	1,870	342	2,212	2,068	581	2,649
Total	3,741	684	4,425	4,135	1,162	5,297

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
2 Moreno Beach Dr/SR-60 Eastbound Ramps						
	0		0	0		0
	932		932	1,150		1,150
	365		365	515		515
	88		88	90		90
	773		773	870		870
	0		0	0		0
	258		258	350		350
	12		12	8		8
	562		562	778		778
	0		0	0		0
	0		0	0		0
	0		0	0		0
Approach	861	0	861	960	0	960
Departure	1,191	0	1,191	1,500	0	1,500
Total	2,052	0	2,052	2,460	0	2,460
Approach	1,297	0	1,297	1,665	0	1,665
Departure	1,335	0	1,335	1,648	0	1,648
Total	2,632	0	2,632	3,313	0	3,313
Approach	0	0	0	0	0	0
Departure	465	0	465	614	0	614
Total	465	0	465	614	0	614
Approach	832	0	832	1,136	0	1,136
Departure	0	0	0	0	0	0
Total	832	0	832	1,136	0	1,136
Approach	2,990	0	2,990	3,761	0	3,761
Departure	2,990	0	2,990	3,761	0	3,761
Total	5,981	0	5,981	7,523	0	7,523

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
2 Moreno Beach Dr/SR-60 Eastbound Ramps						
	0		0	0		0
	744	188	932	1,010	140	1,150
	291	74	365	452	63	515
	88		88	90		90
	563	210	773	543	327	870
	0		0	0		0
	258		258	350		350
	12		12	8		8
	562		562	778		778
	0		0	0		0
	0		0	0		0
	0		0	0		0
Approach	651	210	861	633	327	960
Departure	1,003	188	1,191	1,360	140	1,500
Total	1,654	398	2,052	1,993	467	2,460
Approach	1,035	262	1,297	1,462	203	1,665
Departure	1,125	210	1,335	1,321	327	1,648
Total	2,160	472	2,632	2,783	530	3,313
Approach	0	0	0	0	0	0
Departure	391	74	465	551	63	614
Total	391	74	465	551	63	614
Approach	832	0	832	1,136	0	1,136
Departure	0	0	0	0	0	0
Total	832	0	832	1,136	0	1,136
Approach	2,518	472	2,990	3,231	530	3,761
Departure	2,518	472	2,990	3,231	530	3,761
Total	5,037	944	5,981	6,463	1,060	7,523

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
Moreno Beach Dr/Eucalyptus Avenue						
	166		166	236		236
	727		727	626		626
	67		67	36		36
	243		243	268		268
	675		675	923		923
	432		432	502		502
	449		449	713		713
	170		170	272		272
	133		133	235		235
	46		46	89		89
	193		193	214		214
	122		122	326		326
Approach	1,350	0	1,350	1,693	0	1,693
Departure	1,298	0	1,298	1,665	0	1,665
Total	2,648	0	2,648	3,358	0	3,358
Approach	960	0	960	898	0	898
Departure	854	0	854	1,247	0	1,247
Total	1,814	0	1,814	2,145	0	2,145
Approach	361	0	361	629	0	629
Departure	480	0	480	576	0	576
Total	841	0	841	1,205	0	1,205
Approach	752	0	752	1,220	0	1,220
Departure	791	0	791	952	0	952
Total	1,543	0	1,543	2,172	0	2,172
Approach	3,423	0	3,423	4,440	0	4,440
Departure	3,423	0	3,423	4,440	0	4,440
Total	6,846	0	6,846	8,879	0	8,879

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
10 Redlands Boulevard/SR-60 Westbound Ramps						
	16	2	18	4		4
	595	59	654	980	46	1,026
	303	30	333	268	12	280
	448		448	468		468
	606	58	664	650	19	669
	8		8	9		9
	9		9	9		9
	5		5	7		7
	9	1	10	3		3
	238	23	261	257	8	265
	11		11	0		0
	117		117	68		68
Approach	1,062	58	1,120	1,128	19	1,147
Departure	721	59	780	1,057	46	1,103
Total	1,783	117	1,900	2,185	65	2,250
Approach	914	91	1,005	1,252	58	1,310
Departure	853	82	935	910	27	937
Total	1,767	173	1,940	2,162	85	2,247
Approach	365	23	388	325	8	333
Departure	756	30	786	744	12	756
Total	1,121	53	1,174	1,069	20	1,089
Approach	24	1	25	20	0	20
Departure	35	2	37	14	0	14
Total	59	3	62	34	0	34
Approach	2,365	173	2,538	2,725	85	2,810
Departure	2,365	173	2,538	2,725	85	2,810
Total	4,731	346	5,077	5,450	170	5,620

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
11 Redlands Boulevard/SR-60 Eastbound Ramps						
	158		158	159		159
	777		777	799		799
	0		0	0		0
	0		0	0		0
	874		874	878		878
	61		61	59		59
	228		228	511		511
	0		0	0		0
	313		313	472		472
	0		0	0		0
	0		0	0		0
	0		0	0		0
Approach	935	0	935	937	0	937
Departure	1,005	0	1,005	1,310	0	1,310
Total	1,940	0	1,940	2,247	0	2,247
Approach	935	0	935	958	0	958
Departure	1,187	0	1,187	1,350	0	1,350
Total	2,122	0	2,122	2,308	0	2,308
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Approach	541	0	541	983	0	983
Departure	219	0	219	218	0	218
Total	760	0	760	1,202	0	1,202
Approach	2,411	0	2,411	2,879	0	2,879
Departure	2,411	0	2,411	2,879	0	2,879
Total	4,821	0	4,821	5,757	0	5,757

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
11 Redlands Boulevard/SR-60 Eastbound Ramps						
	138	20	158	155	4	159
	680	97	777	781	18	799
	0		0	0		0
	0		0	0		0
	795	79	874	865	13	878
	61		61	59		59
	228		228	511		511
	0		0	0		0
	285	28	313	465	7	472
	0		0	0		0
	0		0	0		0
	0		0	0		0
Approach	856	79	935	924	13	937
Departure	908	97	1,005	1,292	18	1,310
Total	1,764	176	1,940	2,216	31	2,247
Approach	818	117	935	936	22	958
Departure	1,080	107	1,187	1,330	20	1,350
Total	1,898	224	2,122	2,266	42	2,308
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Approach	513	28	541	976	7	983
Departure	199	20	219	214	4	218
Total	712	48	760	1,191	11	1,202
Approach	2,187	224	2,411	2,837	42	2,879
Departure	2,187	224	2,411	2,837	42	2,879
Total	4,373	448	4,821	5,673	84	5,757

**Table C-8: Balance of General Plan (2040) Peak Hour Volumes
To Maintain Consistent Flow of Vehicles**

	A.M. Peak Hour Volumes			P.M. Peak Hour Volumes		
	Model Volume	Adjust.	Balanced Volume	Model Volume	Adjust.	Balanced Volume
12 Redlands Boulevard/Eucalyptus Avenue						
	60		60	88		88
	580		580	492		492
	142		142	470		470
	242		242	226		226
	746		746	991		991
	200		200	133		133
	64		64	53		53
	109		109	325		325
	32		32	62		62
	58		58	116		116
	76		76	90		90
	291		291	413		413
Approach	1,188	0	1,188	1,350	0	1,350
Departure	935	0	935	958	0	958
Total	2,122	0	2,122	2,308	0	2,308
Approach	782	0	782	1,050	0	1,050
Departure	836	0	836	1,169	0	1,169
Total	1,618	0	1,618	2,219	0	2,219
Approach	425	0	425	619	0	619
Departure	493	0	493	1,021	0	1,021
Total	918	0	918	1,640	0	1,640
Approach	205	0	205	440	0	440
Departure	336	0	336	311	0	311
Total	541	0	541	751	0	751
Approach	2,599	0	2,599	3,458	0	3,458
Departure	2,599	0	2,599	3,458	0	3,458
Total	5,198	0	5,198	6,916	0	6,916

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
1 . Moreno Beach Dr/SR-60 Westbound Ramps						
NBL	0	0	0	0	0	0
NBT	417	463	486	543	564	592
NBR	422	494	519	624	619	624
SBL	149	116	149	132	58	132
SBT	484	308	484	401	373	401
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	167	211	222	196	249	261
WBT	0	0	0	0	0	0
WBR	11	7	11	57	19	57
North Leg						
Approach	633	424	633	533	431	533
Departure	428	470	497	600	583	649
Total	1,061	894	1,130	1,133	1,014	1,182
South Leg						
Approach	839	957	1,005	1,167	1,183	1,216
Departure	651	519	706	597	622	662
Total	1,490	1,476	1,710	1,764	1,805	1,879
East Leg						
Approach	178	218	233	253	268	318
Departure	571	610	668	756	677	756
Total	749	828	900	1,009	945	1,074
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	1,650	1,599	1,870	1,953	1,882	2,068
Departure	1,650	1,599	1,870	1,953	1,882	2,068
Total	3,300	3,198	3,741	3,906	3,764	4,135

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
2 . Moreno Beach Dr/SR-60 Eastbound Ramps						
NBL	0	0	0	0	0	0
NBT	695	709	744	1,010	851	1,010
NBR	291	256	291	452	302	452
SBL	88	78	88	38	86	90
SBT	563	460	563	543	534	543
SBR	0	0	0	0	0	0
EBL	121	246	258	163	333	350
EBT	10	11	12	8	8	8
EBR	562	541	562	778	710	778
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	651	538	651	581	620	633
Departure	816	955	1,003	1,173	1,184	1,360
Total	1,467	1,493	1,654	1,754	1,804	1,993
South Leg						
Approach	986	965	1,035	1,462	1,153	1,462
Departure	1,125	1,001	1,125	1,321	1,244	1,321
Total	2,111	1,966	2,160	2,783	2,397	2,783
East Leg						
Approach	0	0	0	0	0	0
Departure	389	345	391	498	396	551
Total	389	345	391	498	396	551
West Leg						
Approach	693	798	832	949	1,051	1,136
Departure	0	0	0	0	0	0
Total	693	798	832	949	1,051	1,136
Total Approaches						
Approach	2,330	2,301	2,518	2,992	2,824	3,231
Departure	2,330	2,301	2,518	2,992	2,824	3,231
Total	4,660	4,602	5,037	5,984	5,648	6,463

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
3 . Moreno Beach Dr/Eucalyptus Avenue						
NBL	166	155	166	236	171	236
NBT	405	692	727	473	596	626
NBR	19	64	67	24	34	36
SBL	243	183	243	268	91	268
SBT	449	643	675	652	879	923
SBR	432	176	432	502	279	502
EBL	449	218	449	713	384	713
EBT	170	85	170	272	53	272
EBR	133	115	133	235	219	235
WBL	46	37	46	71	85	89
WBT	193	40	193	214	79	214
WBR	122	59	122	326	171	326
North Leg						
Approach	1,124	1,002	1,350	1,422	1,249	1,693
Departure	976	969	1,298	1,512	1,151	1,665
Total	2,100	1,971	2,648	2,934	2,400	3,358
South Leg						
Approach	590	911	960	733	801	898
Departure	628	795	854	958	1,183	1,247
Total	1,218	1,706	1,814	1,691	1,984	2,145
East Leg						
Approach	361	136	361	611	335	629
Departure	432	332	480	564	178	576
Total	793	468	841	1,175	513	1,205
West Leg						
Approach	752	418	752	1,220	656	1,220
Departure	791	371	791	952	529	952
Total	1,543	789	1,543	2,172	1,185	2,172
Total Approaches						
Approach	2,827	2,467	3,423	3,986	3,041	4,440
Departure	2,827	2,467	3,423	3,986	3,041	4,440
Total	5,654	4,934	6,846	7,972	6,082	8,879

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
4 . Auto Mall Dr/Eucalyptus Avenue						
NBL	27	35	37	57	80	84
NBT	1	2	2	1	6	6
NBR	12	15	16	9	8	9
SBL	0	0	0	0	0	0
SBT	0	1	1	1	6	6
SBR	5	4	5	20	18	20
EBL	11	11	12	16	13	16
EBT	314	98	314	578	86	578
EBR	37	60	63	30	42	44
WBL	14	13	14	13	16	17
WBT	362	90	362	505	117	505
WBR	3	2	3	1	1	1
North Leg						
Approach	5	5	6	21	24	26
Departure	15	15	17	18	20	23
Total	20	20	23	39	44	50
South Leg						
Approach	40	52	55	67	94	99
Departure	51	74	78	44	64	67
Total	91	126	133	111	158	167
East Leg						
Approach	379	105	379	519	134	523
Departure	326	113	330	587	94	587
Total	705	218	709	1,106	228	1,110
West Leg						
Approach	362	169	389	624	141	638
Departure	394	129	404	582	215	609
Total	756	298	792	1,206	356	1,247
Total Approaches						
Approach	786	331	828	1,231	393	1,287
Departure	786	331	828	1,231	393	1,287
Total	1,572	662	1,656	2,462	786	2,573

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
10 . Redlands Boulevard/SR-60 Westbound Ramps						
NBL	6	15	16	3	4	4
NBT	595	463	595	980	801	980
NBR	303	215	303	268	256	268
SBL	448	424	448	331	446	468
SBT	606	398	606	650	502	650
SBR	1	8	8	0	9	9
EBL	1	9	9	0	9	9
EBT	1	5	5	6	7	7
EBR	4	9	9	1	3	3
WBL	238	100	238	257	87	257
WBT	0	10	11	0	0	0
WBR	103	111	117	68	46	68
North Leg						
Approach	1,055	830	1,062	981	957	1,128
Departure	699	583	721	1,048	856	1,057
Total	1,754	1,413	1,783	2,029	1,813	2,185
South Leg						
Approach	904	693	914	1,251	1,061	1,252
Departure	848	507	853	908	592	910
Total	1,752	1,200	1,767	2,159	1,653	2,162
East Leg						
Approach	341	221	365	325	133	325
Departure	752	644	756	605	709	744
Total	1,093	865	1,121	930	842	1,069
West Leg						
Approach	6	23	24	7	19	20
Departure	7	33	35	3	13	14
Total	13	56	59	10	32	34
Total Approaches						
Approach	2,306	1,767	2,365	2,564	2,170	2,725
Departure	2,306	1,767	2,365	2,564	2,170	2,725
Total	4,612	3,534	4,731	5,128	4,340	5,450

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
11 . Redlands Boulevard/SR-60 Eastbound Ramps						
NBL	138	126	138	139	148	155
NBT	680	523	680	781	512	781
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	795	455	795	865	518	865
SBR	61	59	61	26	56	59
EBL	228	162	228	484	487	511
EBT	0	0	0	0	0	0
EBR	235	271	285	465	209	465
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	856	514	856	891	574	924
Departure	908	685	908	1,265	999	1,292
Total	1,764	1,199	1,764	2,156	1,573	2,216
South Leg						
Approach	818	649	818	920	660	936
Departure	1,030	726	1,080	1,330	727	1,330
Total	1,848	1,375	1,898	2,250	1,387	2,266
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	463	433	513	949	696	976
Departure	199	185	199	165	204	214
Total	662	618	712	1,114	900	1,191
Total Approaches						
Approach	2,137	1,596	2,187	2,760	1,930	2,837
Departure	2,137	1,596	2,187	2,760	1,930	2,837
Total	4,274	3,192	4,373	5,520	3,860	5,673

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
12 . Redlands Boulevard/Eucalyptus Avenue						
NBL	60	15	60	88	15	88
NBT	484	552	580	492	477	492
NBR	142	80	142	470	20	470
SBL	89	230	242	226	70	226
SBT	746	407	746	991	639	991
SBR	200	99	200	133	66	133
EBL	36	61	64	30	50	53
EBT	109	1	109	325	2	325
EBR	32	14	32	62	29	62
WBL	58	20	58	55	110	116
WBT	76	1	76	90	1	90
WBR	291	61	291	413	302	413
North Leg						
Approach	1,035	736	1,188	1,350	775	1,350
Departure	811	674	935	935	829	958
Total	1,846	1,410	2,122	2,285	1,604	2,308
South Leg						
Approach	686	647	782	1,050	512	1,050
Departure	836	441	836	1,108	778	1,169
Total	1,522	1,088	1,618	2,158	1,290	2,219
East Leg						
Approach	425	82	425	558	413	619
Departure	340	311	493	1,021	92	1,021
Total	765	393	918	1,579	505	1,640
West Leg						
Approach	177	76	205	417	81	440
Departure	336	115	336	311	82	311
Total	513	191	541	728	163	751
Total Approaches						
Approach	2,323	1,541	2,599	3,375	1,781	3,458
Departure	2,323	1,541	2,599	3,375	1,781	3,458
Total	4,646	3,082	5,198	6,750	3,562	6,916

Table C-9: General Plan Build-Out (2040) Peak Hour Volume Comparison

	AM Peak Hour			PM Peak Hour		
	2,040 Background	OY (2024) NP	2,040 NP	2,040 Background	OY (2024) NP	2,040 NP
15 . Redlands Boulevard/Encilia Avenue						
NBL	2	0	2	3	0	3
NBT	533	627	658	661	512	661
NBR	29	0	29	38	0	38
SBL	97	0	97	201	0	201
SBT	552	426	552	678	750	788
SBR	114	6	114	165	19	165
EBL	84	24	84	235	9	235
EBT	16	0	16	94	0	94
EBR	2	2	2	4	0	4
WBL	25	0	25	31	0	31
WBT	38	0	38	48	0	48
WBR	80	0	80	160	0	160
North Leg						
Approach	763	432	763	1,044	769	1,154
Departure	697	651	822	1,056	521	1,056
Total	1,460	1,083	1,585	2,100	1,290	2,210
South Leg						
Approach	564	627	689	702	512	702
Departure	579	428	579	713	750	823
Total	1,143	1,055	1,268	1,415	1,262	1,525
East Leg						
Approach	143	0	143	239	0	239
Departure	142	0	142	333	0	333
Total	285	0	285	572	0	572
West Leg						
Approach	102	26	102	333	9	333
Departure	154	6	154	216	19	216
Total	256	32	256	549	28	549
Total Approaches						
Approach	1,572	1,085	1,697	2,318	1,290	2,428
Departure	1,572	1,085	1,697	2,318	1,290	2,428
Total	3,144	2,170	3,395	4,636	2,580	4,855

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
1 . Moreno Beach Dr/SR-60 Westbound Ramps										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	576	12	588	1	589	730	34	764	3	767
NBR	615	0	615	28	643	769	0	769	100	869
SBL	149	0	149	0	149	132	0	132	0	132
SBT	591	30	621	3	624	581	15	596	1	597
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	271	53	324	0	324	379	26	405	0	405
WBT	0	0	0	0	0	0	0	0	0	0
WBR	11	0	11	0	11	57	0	57	0	57
North Leg										
Approach	740	30	770	3	773	713	15	728	1	729
Departure	587	12	599	1	600	787	34	821	3	824
Total	1,327	42	1,369	4	1,373	1,500	49	1,549	4	1,553
South Leg										
Approach	1,191	12	1,203	29	1,232	1,499	34	1,533	103	1,636
Departure	862	83	945	3	948	960	41	1,001	1	1,002
Total	2,052	95	2,147	32	2,179	2,460	75	2,535	104	2,639
East Leg										
Approach	282	53	335	0	335	436	26	462	0	462
Departure	764	0	764	28	792	901	0	901	100	1,001
Total	1,045	53	1,098	28	1,126	1,337	26	1,363	100	1,463
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	2,212	95	2,307	32	2,339	2,649	75	2,724	104	2,828
Departure	2,212	95	2,307	32	2,339	2,649	75	2,724	104	2,828
Total	4,425	190	4,615	64	4,679	5,297	150	5,447	208	5,655

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
2 . Moreno Beach Dr/SR-60 Eastbound Ramps										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	932	12	944	29	973	1,150	34	1,184	103	1,287
NBR	365	21	386	0	386	515	59	574	0	574
SBL	88	0	88	0	88	90	0	90	0	90
SBT	773	83	856	3	859	870	40	910	1	911
SBR	0	0	0	0	0	0	0	0	0	0
EBL	258	0	258	0	258	350	0	350	0	350
EBT	12	0	12	0	12	8	0	8	0	8
EBR	562	0	562	96	658	778	0	778	39	817
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	861	83	944	3	947	960	40	1,000	1	1,001
Departure	1,191	12	1,203	29	1,232	1,500	34	1,534	103	1,637
Total	2,052	95	2,147	32	2,179	2,460	74	2,534	104	2,638
South Leg										
Approach	1,297	33	1,330	29	1,359	1,665	93	1,758	103	1,861
Departure	1,335	83	1,418	99	1,517	1,648	40	1,688	40	1,728
Total	2,632	116	2,748	128	2,876	3,313	133	3,446	143	3,589
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	465	21	486	0	486	614	59	673	0	673
Total	465	21	486	0	486	614	59	673	0	673
West Leg										
Approach	832	0	832	96	928	1,136	0	1,136	39	1,175
Departure	0	0	0	0	0	0	0	0	0	0
Total	832	0	832	96	928	1,136	0	1,136	39	1,175
Total Approaches										
Approach	2,990	116	3,106	128	3,234	3,761	133	3,894	143	4,037
Departure	2,990	116	3,106	128	3,234	3,761	133	3,894	143	4,037
Total	5,981	232	6,213	256	6,469	7,523	266	7,789	286	8,075

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
3 . Moreno Beach Dr/Eucalyptus Avenue										
NBL	166	0	166	0	166	236	0	236	0	236
NBT	727	33	760	0	760	626	93	719	0	719
NBR	67	0	67	3	70	36	0	36	1	37
SBL	243	0	243	100	343	268	0	268	40	308
SBT	675	83	758	0	758	923	40	963	0	963
SBR	432	0	432	0	432	502	0	502	0	502
EBL	449	0	449	0	449	713	0	713	0	713
EBT	170	0	170	5	175	272	0	272	2	274
EBR	133	0	133	0	133	235	0	235	0	235
WBL	46	0	46	1	47	89	0	89	3	92
WBT	193	0	193	2	195	214	0	214	6	220
WBR	122	0	122	29	151	326	0	326	103	429
North Leg										
Approach	1,350	83	1,433	100	1,533	1,693	40	1,733	40	1,773
Departure	1,298	33	1,331	29	1,360	1,665	93	1,758	103	1,861
Total	2,648	116	2,764	129	2,893	3,358	133	3,491	143	3,634
South Leg										
Approach	960	33	993	3	996	898	93	991	1	992
Departure	854	83	937	1	938	1,247	40	1,287	3	1,290
Total	1,814	116	1,930	4	1,934	2,145	133	2,278	4	2,282
East Leg										
Approach	361	0	361	32	393	629	0	629	112	741
Departure	480	0	480	108	588	576	0	576	43	619
Total	841	0	841	140	981	1,205	0	1,205	155	1,360
West Leg										
Approach	752	0	752	5	757	1,220	0	1,220	2	1,222
Departure	791	0	791	2	793	952	0	952	6	958
Total	1,543	0	1,543	7	1,550	2,172	0	2,172	8	2,180
Total Approaches										
Approach	3,423	116	3,539	140	3,679	4,440	133	4,573	155	4,728
Departure	3,423	116	3,539	140	3,679	4,440	133	4,573	155	4,728
Total	6,846	232	7,078	280	7,358	8,879	266	9,145	310	9,455

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
4 . Auto Mall Dr/Eucalyptus Avenue										
NBL	37	0	37	0	37	84	0	84	0	84
NBT	2	0	2	0	2	6	0	6	0	6
NBR	16	0	16	4	20	9	0	9	2	11
SBL	0	0	0	0	0	0	0	0	0	0
SBT	1	0	1	0	1	6	0	6	0	6
SBR	5	0	5	0	5	20	0	20	0	20
EBL	12	0	12	0	12	16	0	16	0	16
EBT	314	0	314	108	422	578	0	578	44	622
EBR	63	0	63	0	63	44	0	44	0	44
WBL	14	0	14	1	15	17	0	17	5	22
WBT	362	0	362	32	394	505	0	505	112	617
WBR	3	0	3	0	3	1	0	1	0	1
North Leg										
Approach	6	0	6	0	6	26	0	26	0	26
Departure	17	0	17	0	17	23	0	23	0	23
Total	23	0	23	0	23	50	0	50	0	50
South Leg										
Approach	55	0	55	4	59	99	0	99	2	101
Departure	78	0	78	1	79	67	0	67	5	72
Total	133	0	133	5	138	167	0	167	7	174
East Leg										
Approach	379	0	379	33	412	523	0	523	117	640
Departure	330	0	330	112	442	587	0	587	46	633
Total	709	0	709	145	854	1,110	0	1,110	163	1,273
West Leg										
Approach	389	0	389	108	497	638	0	638	44	682
Departure	404	0	404	32	436	609	0	609	112	721
Total	792	0	792	140	932	1,247	0	1,247	156	1,403
Total Approaches										
Approach	828	0	828	145	973	1,287	0	1,287	163	1,450
Departure	828	0	828	145	973	1,287	0	1,287	163	1,450
Total	1,656	0	1,656	290	1,946	2,573	0	2,573	326	2,899

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
5 . Driveway 1/Eucalyptus Avenue										
NBL	0	0	0	26	26	0	0	0	91	91
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	30	30	0	0	0	104	104
SBL	2	0	2	0	2	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	2	0	2	0	2	0	0	0	0	0
EBT	205	0	205	25	230	440	0	440	10	450
EBR	0	0	0	88	88	0	0	0	36	36
WBL	0	0	0	66	66	0	0	0	27	27
WBT	336	0	336	7	343	311	0	311	26	337
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	2	0	2	0	2	0	0	0	0	0
Departure	2	0	2	0	2	0	0	0	0	0
Total	4	0	4	0	4	0	0	0	0	0
South Leg										
Approach	0	0	0	56	56	0	0	0	195	195
Departure	0	0	0	154	154	0	0	0	63	63
Total	0	0	0	210	210	0	0	0	258	258
East Leg										
Approach	336	0	336	73	409	311	0	311	53	364
Departure	207	0	207	55	262	440	0	440	114	554
Total	543	0	543	128	671	751	0	751	167	918
West Leg										
Approach	207	0	207	113	320	440	0	440	46	486
Departure	336	0	336	33	369	311	0	311	117	428
Total	543	0	543	146	689	751	0	751	163	914
Total Approaches										
Approach	545	0	545	242	787	751	0	751	294	1,045
Departure	545	0	545	242	787	751	0	751	294	1,045
Total	1,091	0	1,091	484	1,575	1,501	0	1,501	588	2,089

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
6 . Driveway 2-Essen Ln/Encilia Avenue										
NBL	1	0	1	0	1	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	6	0	6	0	6	3	0	3	0	3
SBL	0	0	0	3	3	0	0	0	11	11
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	1	1
EBL	0	0	0	1	1	0	0	0	0	0
EBT	102	0	102	0	102	333	0	333	0	333
EBR	2	0	2	0	2	0	0	0	0	0
WBL	4	0	4	0	4	13	0	13	0	13
WBT	154	0	154	0	154	216	0	216	0	216
WBR	0	0	0	11	11	0	0	0	4	4
North Leg										
Approach	0	0	0	3	3	0	0	0	12	12
Departure	0	0	0	12	12	0	0	0	4	4
Total	0	0	0	15	15	0	0	0	16	16
South Leg										
Approach	7	0	7	0	7	3	0	3	0	3
Departure	6	0	6	0	6	13	0	13	0	13
Total	14	0	14	0	14	16	0	16	0	16
East Leg										
Approach	158	0	158	11	169	229	0	229	4	233
Departure	108	0	108	3	111	336	0	336	11	347
Total	267	0	267	14	281	565	0	565	15	580
West Leg										
Approach	104	0	104	1	105	333	0	333	0	333
Departure	155	0	155	0	155	216	0	216	1	217
Total	259	0	259	1	260	549	0	549	1	550
Total Approaches										
Approach	270	0	270	15	285	565	0	565	16	581
Departure	270	0	270	15	285	565	0	565	16	581
Total	540	0	540	30	570	1,130	0	1,130	32	1,162

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
7 . Driveway 3/Encilia Avenue										
NBL	1	0	1	0	1	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	18	0	18	0	18	3	0	3	0	3
SBL	0	0	0	5	5	0	0	0	17	17
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	102	0	102	3	105	333	0	333	11	344
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	7	0	7	0	7
WBT	154	0	154	11	165	216	0	216	4	220
WBR	0	0	0	15	15	0	0	0	6	6
North Leg										
Approach	0	0	0	5	5	0	0	0	17	17
Departure	0	0	0	15	15	0	0	0	6	6
Total	0	0	0	20	20	0	0	0	23	23
South Leg										
Approach	19	0	19	0	19	3	0	3	0	3
Departure	0	0	0	0	0	7	0	7	0	7
Total	19	0	19	0	19	11	0	11	0	11
East Leg										
Approach	154	0	154	26	180	223	0	223	10	233
Departure	120	0	120	8	128	336	0	336	28	364
Total	274	0	274	34	308	560	0	560	38	598
West Leg										
Approach	102	0	102	3	105	333	0	333	11	344
Departure	155	0	155	11	166	216	0	216	4	220
Total	257	0	257	14	271	549	0	549	15	564
Total Approaches										
Approach	275	0	275	34	309	560	0	560	38	598
Departure	275	0	275	34	309	560	0	560	38	598
Total	550	0	550	68	618	1,119	0	1,119	76	1,195

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
8 . Driveway 4-Shubert Street/Encilia Avenue										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	6	0	6	0	6	2	0	2	0	2
SBL	0	0	0	6	6	0	0	0	23	23
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	102	0	102	8	110	333	0	333	29	362
EBR	0	0	0	0	0	0	0	0	0	0
WBL	1	0	1	0	1	3	0	3	0	3
WBT	154	0	154	26	180	216	0	216	10	226
WBR	0	0	0	22	22	0	0	0	9	9
North Leg										
Approach	0	0	0	6	6	0	0	0	23	23
Departure	0	0	0	22	22	0	0	0	9	9
Total	0	0	0	28	28	0	0	0	32	32
South Leg										
Approach	6	0	6	0	6	2	0	2	0	2
Departure	1	0	1	0	1	3	0	3	0	3
Total	7	0	7	0	7	5	0	5	0	5
East Leg										
Approach	155	0	155	48	203	219	0	219	19	238
Departure	108	0	108	14	122	335	0	335	52	387
Total	263	0	263	62	325	554	0	554	71	625
West Leg										
Approach	102	0	102	8	110	333	0	333	29	362
Departure	154	0	154	26	180	216	0	216	10	226
Total	256	0	256	34	290	549	0	549	39	588
Total Approaches										
Approach	263	0	263	62	325	554	0	554	71	625
Departure	263	0	263	62	325	554	0	554	71	625
Total	527	0	527	124	651	1,109	0	1,109	142	1,251

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
9 . Driveway 5/Eucalyptus Avenue										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	5	5	0	0	0	18	18
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	205	0	205	55	260	440	0	440	114	554
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	336	0	336	73	409	311	0	311	53	364
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
South Leg										
Approach	0	0	0	5	5	0	0	0	18	18
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	5	5	0	0	0	18	18
East Leg										
Approach	336	0	336	73	409	311	0	311	53	364
Departure	205	0	205	60	265	440	0	440	132	572
Total	541	0	541	133	674	751	0	751	185	936
West Leg										
Approach	205	0	205	55	260	440	0	440	114	554
Departure	336	0	336	73	409	311	0	311	53	364
Total	541	0	541	128	669	751	0	751	167	918
Total Approaches										
Approach	541	0	541	133	674	751	0	751	185	936
Departure	541	0	541	133	674	751	0	751	185	936
Total	1,082	0	1,082	266	1,348	1,501	0	1,501	370	1,871

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
10 . Redlands Boulevard/SR-60 Westbound Ramps										
NBL	18	0	18	0	18	4	0	4	0	4
NBT	654	0	654	3	657	1,026	0	1,026	9	1,035
NBR	333	0	333	30	363	280	0	280	101	381
SBL	448	0	448	0	448	468	0	468	0	468
SBT	664	0	664	9	673	669	0	669	3	672
SBR	8	0	8	0	8	9	0	9	0	9
EBL	9	0	9	0	9	9	0	9	0	9
EBT	5	0	5	0	5	7	0	7	0	7
EBR	10	0	10	0	10	3	0	3	0	3
WBL	261	0	261	26	287	265	0	265	10	275
WBT	11	0	11	0	11	0	0	0	0	0
WBR	117	0	117	0	117	68	0	68	0	68
North Leg										
Approach	1,120	0	1,120	9	1,129	1,147	0	1,147	3	1,150
Departure	780	0	780	3	783	1,103	0	1,103	9	1,112
Total	1,900	0	1,900	12	1,912	2,250	0	2,250	12	2,262
South Leg										
Approach	1,005	0	1,005	33	1,038	1,310	0	1,310	110	1,420
Departure	935	0	935	35	970	937	0	937	13	950
Total	1,940	0	1,940	68	2,008	2,247	0	2,247	123	2,370
East Leg										
Approach	388	0	388	26	414	333	0	333	10	343
Departure	786	0	786	30	816	756	0	756	101	857
Total	1,174	0	1,174	56	1,230	1,089	0	1,089	111	1,200
West Leg										
Approach	25	0	25	0	25	20	0	20	0	20
Departure	37	0	37	0	37	14	0	14	0	14
Total	62	0	62	0	62	34	0	34	0	34
Total Approaches										
Approach	2,538	0	2,538	68	2,606	2,810	0	2,810	123	2,933
Departure	2,538	0	2,538	68	2,606	2,810	0	2,810	123	2,933
Total	5,077	0	5,077	136	5,213	5,620	0	5,620	246	5,866

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
11 . Redlands Boulevard/SR-60 Eastbound Ramps										
NBL	158	0	158	8	166	159	0	159	27	186
NBT	777	0	777	32	809	799	0	799	110	909
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	874	0	874	34	908	878	0	878	14	892
SBR	61	0	61	0	61	59	0	59	0	59
EBL	228	0	228	0	228	511	0	511	0	511
EBT	0	0	0	0	0	0	0	0	0	0
EBR	313	0	313	98	411	472	0	472	41	513
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	935	0	935	34	969	937	0	937	14	951
Departure	1,005	0	1,005	32	1,037	1,310	0	1,310	110	1,420
Total	1,940	0	1,940	66	2,006	2,247	0	2,247	124	2,371
South Leg										
Approach	935	0	935	40	975	958	0	958	137	1,095
Departure	1,187	0	1,187	132	1,319	1,350	0	1,350	55	1,405
Total	2,122	0	2,122	172	2,294	2,308	0	2,308	192	2,500
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	541	0	541	98	639	983	0	983	41	1,024
Departure	219	0	219	8	227	218	0	218	27	245
Total	760	0	760	106	866	1,202	0	1,202	68	1,270
Total Approaches										
Approach	2,411	0	2,411	172	2,583	2,879	0	2,879	192	3,071
Departure	2,411	0	2,411	172	2,583	2,879	0	2,879	192	3,071
Total	4,821	0	4,821	344	5,165	5,757	0	5,757	384	6,141

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
12 . Redlands Boulevard/Eucalyptus Avenue										
NBL	60	0	60	9	69	88	0	88	27	115
NBT	580	0	580	5	585	492	0	492	19	511
NBR	142	0	142	1	143	470	0	470	3	473
SBL	242	0	242	0	242	226	0	226	0	226
SBT	746	0	746	70	816	991	0	991	28	1,019
SBR	200	0	200	62	262	133	0	133	25	158
EBL	64	0	64	34	98	53	0	53	117	170
EBT	109	0	109	1	110	325	0	325	2	327
EBR	32	0	32	26	58	62	0	62	12	74
WBL	58	0	58	3	61	116	0	116	1	117
WBT	76	0	76	2	78	90	0	90	1	91
WBR	291	0	291	0	291	413	0	413	0	413
North Leg										
Approach	1,188	0	1,188	132	1,320	1,350	0	1,350	53	1,403
Departure	935	0	935	39	974	958	0	958	136	1,094
Total	2,122	0	2,122	171	2,293	2,308	0	2,308	189	2,497
South Leg										
Approach	782	0	782	15	797	1,050	0	1,050	49	1,099
Departure	836	0	836	99	935	1,169	0	1,169	41	1,210
Total	1,618	0	1,618	114	1,732	2,219	0	2,219	90	2,309
East Leg										
Approach	425	0	425	5	430	619	0	619	2	621
Departure	493	0	493	2	495	1,021	0	1,021	5	1,026
Total	918	0	918	7	925	1,640	0	1,640	7	1,647
West Leg										
Approach	205	0	205	61	266	440	0	440	131	571
Departure	336	0	336	73	409	311	0	311	53	364
Total	541	0	541	134	675	751	0	751	184	935
Total Approaches										
Approach	2,599	0	2,599	213	2,812	3,458	0	3,458	235	3,693
Departure	2,599	0	2,599	213	2,812	3,458	0	3,458	235	3,693
Total	5,198	0	5,198	426	5,624	6,916	0	6,916	470	7,386

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
13 . Redlands Boulevard/Driveway 6										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	782	0	782	16	798	1,050	0	1,050	50	1,100
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	836	0	836	85	921	1,169	0	1,169	36	1,205
SBR	0	0	0	14	14	0	0	0	6	6
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	4	4	0	0	0	13	13
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	836	0	836	99	935	1,169	0	1,169	42	1,211
Departure	782	0	782	16	798	1,050	0	1,050	50	1,100
Total	1,618	0	1,618	115	1,733	2,219	0	2,219	92	2,311
South Leg										
Approach	782	0	782	16	798	1,050	0	1,050	50	1,100
Departure	836	0	836	89	925	1,169	0	1,169	49	1,218
Total	1,618	0	1,618	105	1,723	2,219	0	2,219	99	2,318
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	0	0	0	4	4	0	0	0	13	13
Departure	0	0	0	14	14	0	0	0	6	6
Total	0	0	0	18	18	0	0	0	19	19
Total Approaches										
Approach	1,618	0	1,618	119	1,737	2,219	0	2,219	105	2,324
Departure	1,618	0	1,618	119	1,737	2,219	0	2,219	105	2,324
Total	3,235	0	3,235	238	3,473	4,437	0	4,437	210	4,647

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
14 . Redlands Boulevard/Driveway 7										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	782	0	782	16	798	1,050	0	1,050	50	1,100
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	836	0	836	26	862	1,169	0	1,169	24	1,193
SBR	0	0	0	62	62	0	0	0	25	25
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	4	4	0	0	0	13	13
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	836	0	836	88	924	1,169	0	1,169	49	1,218
Departure	782	0	782	16	798	1,050	0	1,050	50	1,100
Total	1,618	0	1,618	104	1,722	2,219	0	2,219	99	2,318
South Leg										
Approach	782	0	782	16	798	1,050	0	1,050	50	1,100
Departure	836	0	836	30	866	1,169	0	1,169	37	1,206
Total	1,618	0	1,618	46	1,664	2,219	0	2,219	87	2,306
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	0	0	0	4	4	0	0	0	13	13
Departure	0	0	0	62	62	0	0	0	25	25
Total	0	0	0	66	66	0	0	0	38	38
Total Approaches										
Approach	1,618	0	1,618	108	1,726	2,219	0	2,219	112	2,331
Departure	1,618	0	1,618	108	1,726	2,219	0	2,219	112	2,331
Total	3,235	0	3,235	216	3,451	4,437	0	4,437	224	4,661

Table C-10: General Plan Build-Out (2040) With Project Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project	2,040 PCE Volume	Kaiser Trips	2,040 NP	Project Trips	2,040 With Project
15 . Redlands Boulevard/Encilia Avenue										
NBL	2	0	2	26	28	3	0	3	10	13
NBT	658	0	658	2	660	661	0	661	1	662
NBR	29	0	29	0	29	38	0	38	0	38
SBL	97	0	97	2	99	201	0	201	7	208
SBT	552	0	552	6	558	788	0	788	21	809
SBR	114	0	114	22	136	165	0	165	9	174
EBL	84	0	84	12	96	235	0	235	42	277
EBT	16	0	16	0	16	94	0	94	0	94
EBR	2	0	2	3	5	4	0	4	9	13
WBL	25	0	25	0	25	31	0	31	0	31
WBT	38	0	38	0	38	48	0	48	0	48
WBR	80	0	80	0	80	160	0	160	0	160
North Leg										
Approach	763	0	763	30	793	1,154	0	1,154	37	1,191
Departure	822	0	822	14	836	1,056	0	1,056	43	1,099
Total	1,585	0	1,585	44	1,629	2,210	0	2,210	80	2,290
South Leg										
Approach	689	0	689	28	717	702	0	702	11	713
Departure	579	0	579	9	588	823	0	823	30	853
Total	1,268	0	1,268	37	1,305	1,525	0	1,525	41	1,566
East Leg										
Approach	143	0	143	0	143	239	0	239	0	239
Departure	142	0	142	2	144	333	0	333	7	340
Total	285	0	285	2	287	572	0	572	7	579
West Leg										
Approach	102	0	102	15	117	333	0	333	51	384
Departure	154	0	154	48	202	216	0	216	19	235
Total	256	0	256	63	319	549	0	549	70	619
Total Approaches										
Approach	1,697	0	1,697	73	1,770	2,428	0	2,428	99	2,527
Departure	1,697	0	1,697	73	1,770	2,428	0	2,428	99	2,527
Total	3,395	0	3,395	146	3,541	4,855	0	4,855	198	5,053

Table C-11: Existing With Project Roadway Segment Volume Summary

Roadway Segment	Without Project					Project Trips					Existing With Project	
	Exist Daily Pass. Veh.	Exist Daily Trucks	Exist Daily Total Vehicles	Exist Daily Truck PCEs	Exist Daily PCE Volumes	Daily Project Pass. Veh. Trips	Daily Project Truck NonPCEs	Daily Project Truck PCEs	Total Daily Project NonPCEs	Total Daily Project Truck PCEs	Exist With Project Total Vehicles	Exist With Project Total PCEs
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	12,258	1,188	13,446	2,145	14,403	25	265	668	290	693	13,736	15,096
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	10,695	877	11,572	1,595	12,290	38	532	1,337	570	1,375	12,142	13,665
3 . Redlands Blvd from Eucalyptus Ave to Driveway 6	10,408	1,340	11,748	2,127	12,535	64	133	334	197	398	11,945	12,933
4 . Redlands Blvd from Driveway 6 to Driveway 7	10,408	1,340	11,748	2,127	12,535	54	133	334	187	388	11,935	12,923
5 . Redlands Blvd from Driveway 7 to Encilia Ave	10,408	1,340	11,748	2,127	12,535	46	0	0	46	46	11,794	12,581
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	11,228	825	12,053	1,496	12,724	12	177	446	189	458	12,242	13,182
7 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	19,316	2,874	22,190	4,618	23,934	41	354	892	395	933	22,585	24,867
8 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	2,842	436	3,278	831	3,673	52	354	892	406	944	3,684	4,617
9 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	1,289	145	1,434	328	1,617	58	354	892	412	950	1,846	2,567
10 . Eucalyptus Ave from Driveway 1 to Aldi Pl	1,256	128	1,384	251	1,507	51	354	891	405	942	1,789	2,449
11 . Eucalyptus Ave Aldi Pl to Driveway 5	1,515	373	1,888	909	2,424	51	354	891	405	942	2,293	3,366
12 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	1,515	373	1,888	909	2,424	51	398	1,002	449	1,053	2,337	3,477
13 . Encilia Ave from Essen Ln to Mozart Way	191	17	208	26	217	14	0	0	14	14	222	231
14 . Encilia Ave from Mozart Way to Shubert St	191	17	208	26	217	34	0	0	34	34	242	251
15 . Encilia Ave Shubert St to Redlands Blvd	405	44	449	70	475	63	0	0	63	63	512	538

Table C-12: Opening Year (2024) With Project Roadway Segment Volume Summary

Roadway Segment	Existing	Growth	OY Back.	Cumul. Project Trips	WLC Daily Trips	OY NP	Project Trips	OY With Project
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	14,403	1499	15,902	1,464	789	18,155	693	18,848
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	12,290	1279	13,569	1,966	789	16,324	1,375	17,699
3 . Redlands Blvd from Eucalyptus Ave to Driveway 6	12,535	1305	13,840	1,204	0	15,044	398	15,442
4 . Redlands Blvd from Driveway 6 to Driveway 7	12,535	1305	13,840	1,204	0	15,044	388	15,432
5 . Redlands Blvd from Driveway 7 to Encilia Ave	12,535	1305	13,840	1,204	0	15,044	46	15,090
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	12,724	1324	14,048	3,875	236	18,159	458	18,617
7 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	23,934	2491	26,425	6,280	236	32,941	933	33,874
8 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	3,673	382	4,055	2,080	236	6,371	944	7,315
9 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	1,617	168	1,785	922	236	2,943	950	3,893
10 . Eucalyptus Ave from Driveway 1 to Aldi Pl	1,507	157	1,664	922	236	2,822	942	3,764
11 . Eucalyptus Ave Aldi Pl to Driveway 5	2,424	252	2,676	922	236	3,834	942	4,776
12 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	2,424	252	2,676	922	236	3,834	1,053	4,887
13 . Encilia Ave from Essen Ln to Mozart Way	217	23	240	0	0	240	14	254
14 . Encilia Ave from Mozart Way to Shubert St	217	23	240	0	0	240	34	274
15 . Encilia Ave Shubert St to Redlands Blvd	475	49	524	0	0	524	63	587

Table C-13: General Plan Build-Out (2040) Roadway Segment Daily Link Volume Worksheet

Roadway Segment	Existing 2019	2012 Model Volume	2040 Model Volume	Base to Future Year Change	2019 to 2040 Growth	2040 Link Volume
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	13,446	9,145	23,196	14,051	10,538	23,984
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	11,572	8,514	25,812	17,298	12,974	24,546
3 . Redlands Blvd from Eucalyptus Ave to Driveway 6	11,748	8,337	24,258	15,921	11,941	23,689
4 . Redlands Blvd from Driveway 6 to Driveway 7	11,748	8,337	24,258	15,921	11,941	23,689
5 . Redlands Blvd from Driveway 7 to Encilia Ave	11,748	8,337	24,258	15,921	11,941	23,689
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	12,053	8,431	22,690	14,259	10,694	22,747
7 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	22,190	8,342	32,021	23,679	17,759	39,949
8 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	3,278	27	10,635	10,608	7,956	11,234
9 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	1,434	27	7,874	7,847	5,885	7,319
10 . Eucalyptus Ave from Driveway 1 to Aldi PI	1,384	27	7,874	7,847	5,885	7,269
11 . Eucalyptus Ave Aldi PI to Driveway 5	1,888	27	7,874	7,847	5,885	7,773
12 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	1,888	27	7,874	7,847	5,885	7,773
13 . Encilia Ave from Essen Ln to Mozart Way	208	1,119	5,960	4,841	3,631	3,839
14 . Encilia Ave from Mozart Way to Shubert St	208	1,119	5,960	4,841	3,631	3,839
15 . Encilia Ave Shubert St to Redlands Blvd	449	1,119	5,960	4,841	3,631	4,080

Table C-14: General Plan Build-Out (2040) Roadway Segment Daily PCE Volume Summary

Roadway Segment	2040 Link Volume	Truck %	Pass. Veh.	Trucks	Truck PCE	Total PCE
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	23,984	8.84%	21,865	2,119	3,825	25,690
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	24,546	7.58%	22,686	1,860	3,383	26,068
3 . Redlands Blvd from Eucalyptus Ave to Driveway 6	23,689	11.41%	20,987	2,702	4,288	25,275
4 . Redlands Blvd from Driveway 6 to Driveway 7	23,689	11.41%	20,987	2,702	4,288	25,275
5 . Redlands Blvd from Driveway 7 to Encilia Ave	23,689	11.41%	20,987	2,702	4,288	25,275
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	22,747	6.84%	21,190	1,557	2,822	24,013
7 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	39,949	12.95%	34,775	5,174	8,314	43,089
8 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	11,234	13.30%	9,740	1,494	2,846	12,586
9 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	7,319	10.11%	6,579	740	1,671	8,251
10 . Eucalyptus Ave from Driveway 1 to Aldi PI	7,269	9.25%	6,597	672	1,315	7,912
11 . Eucalyptus Ave Aldi PI to Driveway 5	7,773	19.76%	6,237	1,536	3,741	9,978
12 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	7,773	19.76%	6,237	1,536	3,741	9,978
13 . Encilia Ave from Essen Ln to Mozart Way	3,839	8.17%	3,525	314	471	3,996
14 . Encilia Ave from Mozart Way to Shubert St	3,839	8.17%	3,525	314	471	3,996
15 . Encilia Ave Shubert St to Redlands Blvd	4,080	9.80%	3,680	400	632	4,312

Table C-15: General Plan Build-Out (2040) Roadway Segment Daily Volume Worksheet

Roadway Segment	2040 Background	Cumul. NP	Comparison	Kaiser Trips	2040 NP	Project Trips	2040 With Project
1 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	25,690	18,155	25,690	0	25,690	919	26,609
2 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	26,068	16,324	26,068	0	26,068	1,725	27,793
3 . Redlands Blvd from Eucalyptus Ave to Driveway 6	25,275	15,044	25,275	0	25,275	980	26,255
4 . Redlands Blvd from Driveway 6 to Driveway 7	25,275	15,044	25,275	0	25,275	966	26,241
5 . Redlands Blvd from Driveway 7 to Encilia Ave	25,275	15,044	25,275	0	25,275	639	25,914
6 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	24,013	18,159	24,013	969	24,982	677	25,659
7 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	43,089	32,941	43,089	1,422	44,511	1,309	45,820
8 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	12,586	6,371	12,586	0	12,586	1,424	14,010
9 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	8,251	2,943	8,251	0	8,251	1,482	9,733
10 . Eucalyptus Ave from Driveway 1 to Aldi Pl	7,912	2,822	7,912	0	7,912	1,423	9,335
11 . Eucalyptus Ave Aldi Pl to Driveway 5	9,978	3,834	9,978	0	9,978	1,423	11,401
12 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	9,978	3,834	9,978	0	9,978	1,534	11,512
13 . Encilia Ave from Essen Ln to Mozart Way	3,996	240	3,996	0	3,996	144	4,140
14 . Encilia Ave from Mozart Way to Shubert St	3,996	240	3,996	0	3,996	352	4,348
15 . Encilia Ave Shubert St to Redlands Blvd	4,312	524	4,312	0	4,312	639	4,951

Table C-16 - Existing Freeway Volumes

Freeway Ramp/Segment	Eastbound/Southbound					
	AM Peak Hour			PM Peak Hour		
	Without Project	Project Trips	With Project	Without Project	Project Trips	With Project
SR-60						
1 I-15 to Etiwanda Ave.	4,727	72	4,800	5,166	30	5,196
2 Etiwanda Ave. to Country Village Rd.	3,889	72	3,961	4,218	30	4,248
3 Country Village Rd. to Pedley Rd.	3,254	72	3,326	3,499	30	3,529
4 Pedley Rd. to Pyrite St.	3,538	72	3,610	3,822	30	3,851
5 Pyrite St. to Byrne Rd.	4,470	72	4,542	4,307	30	4,336
6 Byrne Rd. to Valley Way	5,455	72	5,527	5,263	30	5,293
7 Valley Way to Rubidoux Blvd.	5,457	74	5,531	5,265	30	5,295
8 Rubidoux Blvd. to Market St.	5,677	74	5,751	5,480	30	5,510
9 Market St. to Main St.	6,008	74	6,082	6,437	30	6,467
10 Main St. to SR-91	5,361	76	5,437	4,378	31	4,409
I-215						
11 SR-91 to 3rd St.	6,151	85	6,236	5,663	35	5,698
12 3rd St. to University Ave.	6,870	85	6,955	6,155	35	6,190
13 University Ave. to Martin Luther King Blvd.	6,822	85	6,907	6,539	35	6,573
14 Martin Luther King Blvd. to Central Ave.	6,599	87	6,687	7,891	36	7,926
15 Central Ave. to Box Springs Rd.	5,974	92	6,066	7,695	37	7,732
16 Box Springs Rd. to I-215	5,869	92	5,961	8,412	37	8,450
SR-60						
17 I-215 to Day St.	2,958	93	3,051	4,595	38	4,633
18 Day St. to Pigeon Pass Rd.	3,934	94	4,028	4,156	38	4,194
19 Pigeon Pass Rd. to Heacock St.	2,792	95	2,887	4,628	39	4,667
20 Heacock St. to Perris Blvd.	2,492	97	2,589	3,314	39	3,353
21 Perris Blvd. to Nason St.	2,236	100	2,336	2,880	41	2,921
22 Nason St. to Moreno Beach Dr. Off-Ramp	1,707	102	1,809	2,204	41	2,245
23 Moreno Beach Dr. Off-Ramp	420	56	476	578	22	600
24 Between Moreno Beach Dr. Ramps	1,287	46	1,333	1,626	19	1,645
25 Moreno Beach Dr. On-Ramp	124	0	124	173	0	173
26 Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	1,411	46	1,457	1,799	19	1,818
27 Redlands Blvd. Off-Ramp	190	46	236	530	19	549
28 Between Redlands Blvd. Ramps	1,221	0	1,221	1,269	0	1,269
29 Redlands Blvd. On-Ramp	93	5	98	101	16	117
30 East of Redlands Blvd. On-Ramp	1,314	5	1,319	1,370	16	1,386

Table C-16 - Existing Freeway Volumes

Freeway Ramp/Segment	Westbound/Northbound					
	AM Peak Hour			PM Peak Hour		
	Without Project	Project Trips	With Project	Without Project	Project Trips	With Project
SR-60						
31 East of Redlands Blvd. Off-Ramp	1,462	16	1,478	1,601	6	1,607
32 Redlands Blvd. Off-Ramp	65	16	81	42	6	48
33 Between Redlands Blvd. Ramps	1,397	0	1,397	1,559	0	1,559
34 Redlands Blvd. On-Ramp	492	14	506	468	48	516
35 Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	1,889	14	1,903	2,027	48	2,075
36 Moreno Beach Dr. Off-Ramp	86	0	86	96	0	96
37 Between Moreno Beach Dr. Ramps	1,803	14	1,817	1,931	48	1,979
38 Moreno Beach Dr. On-Ramp	420	16	436	452	58	510
39 Moreno Beach Dr. to Nason St.	2,223	30	2,253	2,383	105	2,488
40 Nason St. to Perris Blvd.	2,897	30	2,926	2,634	104	2,738
41 Perris Blvd. to Heacock St.	2,456	29	2,485	2,865	101	2,966
42 Heacock St. to Pigeon Pass Rd.	1,997	28	2,025	2,678	98	2,776
43 Pigeon Pass Rd. to Day St.	2,488	28	2,516	3,286	97	3,383
44 Day St. I-215	2,400	27	2,427	2,993	96	3,089
I-215						
45 I-215 to Box Springs Rd.	5,252	27	5,279	6,677	95	6,772
46 Box Springs Rd. to Central Ave.	6,705	27	6,732	7,226	95	7,321
47 Central Ave. to Martin Luther King Blvd.	5,297	26	5,323	4,974	90	5,064
48 Martin Luther King Blvd. to University Ave.	5,708	25	5,733	5,286	88	5,374
49 University Ave. to 3rd St.	6,156	25	6,181	5,353	88	5,441
50 3rd St. to SR-91	5,897	25	5,922	5,378	88	5,466
SR-60						
51 SR-91 to Main St.	6,338	22	6,360	3,413	79	3,492
52 Main St. to Market St.	5,830	22	5,852	4,298	77	4,375
53 Market St. to Rubidoux Blvd.	4,223	22	4,244	4,602	77	4,679
54 Rubidoux Blvd. to Valley Way	4,059	22	4,081	4,421	77	4,498
55 Valley Way to Pyrite St.	3,889	21	3,910	4,218	74	4,292
56 Pyrite St. to Pedley Rd.	3,862	21	3,883	4,185	74	4,260
57 Pedley Rd. to Country Village Rd.	3,845	21	3,866	4,166	74	4,240
58 Country Village Rd. to Etiwanda Ave.	4,558	21	4,579	5,016	74	5,091
59 Etiwanda Ave. to I-15	4,394	21	4,415	3,905	74	3,980

Table C-17 - General Plan Build-Out (2040) Freeway Volumes

Freeway Ramp/Segment	Eastbound/Southbound					
	AM Peak Hour			PM Peak Hour		
	Without Project	Project Trips	With Project	Without Project	Project Trips	With Project
SR-60						
1 I-15 to Etiwanda Ave.	6,845	72	6,917	5,425	30	5,454
2 Etiwanda Ave. to Country Village Rd.	6,406	72	6,478	4,466	30	4,495
3 Country Village Rd. to Pedley Rd.	5,957	72	6,029	4,016	30	4,045
4 Pedley Rd. to Pyrite St.	6,382	72	6,454	4,405	30	4,435
5 Pyrite St. to Byrne Rd.	7,187	72	7,259	4,972	30	5,002
6 Byrne Rd. to Valley Way	8,375	72	8,447	5,526	30	5,556
7 Valley Way to Rubidoux Blvd.	8,879	74	8,953	6,273	30	6,303
8 Rubidoux Blvd. to Market St.	8,862	74	8,936	6,201	30	6,232
9 Market St. to Main St.	9,019	74	9,093	7,322	30	7,352
10 Main St. to SR-91	7,873	76	7,950	4,812	31	4,843
I-215						
11 SR-91 to 3rd St.	8,221	85	8,306	6,119	35	6,154
12 3rd St. to University Ave.	8,827	85	8,913	6,252	35	6,287
13 University Ave. to Martin Luther King Blvd.	9,663	85	9,749	7,046	35	7,081
14 Martin Luther King Blvd. to Central Ave.	10,400	87	10,488	8,427	36	8,462
15 Central Ave. to Box Springs Rd.	9,715	92	9,806	8,327	37	8,365
16 Box Springs Rd. to I-215	7,892	92	7,984	8,942	37	8,980
SR-60						
17 I-215 to Day St.	3,864	93	3,957	5,092	38	5,130
18 Day St. to Pigeon Pass Rd.	4,621	94	4,715	4,176	38	4,214
19 Pigeon Pass Rd. to Heacock St.	3,397	95	3,492	4,685	39	4,723
20 Heacock St. to Perris Blvd.	3,230	97	3,327	4,033	39	4,073
21 Perris Blvd. to Nason St.	3,042	100	3,142	3,806	41	3,847
22 Nason St. to Moreno Beach Dr. Off-Ramp	2,384	102	2,485	4,511	41	4,552
23 Moreno Beach Dr. Off-Ramp	663	56	718	940	22	962
24 Between Moreno Beach Dr. Ramps	1,721	46	1,767	3,571	19	3,590
25 Moreno Beach Dr. On-Ramp	353	0	353	484	0	484
26 Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	2,074	46	2,120	4,055	19	4,074
27 Redlands Blvd. Off-Ramp	408	46	454	923	19	942
28 Between Redlands Blvd. Ramps	1,666	0	1,666	3,132	0	3,132
29 Redlands Blvd. On-Ramp	180	5	184	160	16	176
30 East of Redlands Blvd. On-Ramp	1,846	5	1,850	3,292	16	3,308

Table C-17 - General Plan Build-Out (2040) Freeway Volumes

Freeway Ramp/Segment	Westbound/Northbound					
	AM Peak Hour			PM Peak Hour		
	Without Project	Project Trips	With Project	Without Project	Project Trips	With Project
SR-60						
31 East of Redlands Blvd. Off-Ramp	3,087	16	3,103	2,969	6	2,975
32 Redlands Blvd. Off-Ramp	324	16	340	310	6	317
33 Between Redlands Blvd. Ramps	2,763	0	2,763	2,658	0	2,658
34 Redlands Blvd. On-Ramp	719	14	733	585	48	633
35 Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	3,482	14	3,495	3,243	48	3,291
36 Moreno Beach Dr. Off-Ramp	174	0	174	246	0	246
37 Between Moreno Beach Dr. Ramps	3,308	14	3,321	2,997	48	3,045
38 Moreno Beach Dr. On-Ramp	557	16	573	734	58	792
39 Moreno Beach Dr. to Nason St.	3,865	30	3,894	3,732	105	3,837
40 Nason St. to Perris Blvd.	4,047	30	4,077	3,119	104	3,223
41 Perris Blvd. to Heacock St.	3,212	29	3,241	3,446	101	3,547
42 Heacock St. to Pigeon Pass Rd.	2,311	28	2,338	3,032	98	3,130
43 Pigeon Pass Rd. to Day St.	2,612	28	2,640	3,336	97	3,433
44 Day St. I-215	2,401	27	2,428	3,560	96	3,656
I-215						
45 I-215 to Box Springs Rd.	5,515	27	5,542	8,017	95	8,112
46 Box Springs Rd. to Central Ave.	6,810	27	6,837	9,018	95	9,113
47 Central Ave. to Martin Luther King Blvd.	5,919	26	5,944	6,565	90	6,656
48 Martin Luther King Blvd. to University Ave.	6,043	25	6,068	6,776	88	6,864
49 University Ave. to 3rd St.	7,049	25	7,074	7,499	88	7,587
50 3rd St. to SR-91	6,896	25	6,921	7,746	88	7,834
SR-60						
51 SR-91 to Main St.	6,924	22	6,946	6,133	79	6,212
52 Main St. to Market St.	6,404	22	6,426	6,787	77	6,864
53 Market St. to Rubidoux Blvd.	4,600	22	4,621	7,300	77	7,377
54 Rubidoux Blvd. to Valley Way	4,262	22	4,284	6,491	77	6,567
55 Valley Way to Pyrite St.	4,083	21	4,105	5,808	74	5,882
56 Pyrite St. to Pedley Rd.	4,055	21	4,076	6,222	74	6,296
57 Pedley Rd. to Country Village Rd.	4,037	21	4,058	6,181	74	6,256
58 Country Village Rd. to Etiwanda Ave.	4,786	21	4,807	6,574	74	6,649
59 Etiwanda Ave. to I-15	4,614	21	4,635	5,257	74	5,331

APPENDIX D: LEVEL OF SERVICE WORKSHEETS (INTERSECTIONS)

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	84	4	208	350	81	214
Future Volume (veh/h)	84	4	208	350	81	214
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	5	239	402	93	246
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	125	819	744	742	795	1642
Arrive On Green	0.07	0.07	0.65	0.65	0.44	0.86
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	97	5	239	402	93	246
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	6.3	0.0	6.6	15.8	3.6	2.4
Cycle Q Clear(g_c), s	6.3	0.0	6.6	15.8	3.6	2.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	125	819	744	742	795	1642
V/C Ratio(X)	0.77	0.01	0.32	0.54	0.12	0.15
Avail Cap(c_a), veh/h	573	1217	744	742	795	1642
HCM Platoon Ratio	1.00	1.00	1.67	1.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.77	0.77	1.00	1.00
Uniform Delay (d), s/veh	54.9	14.5	13.8	12.3	19.9	1.3
Incr Delay (d2), s/veh	9.8	0.0	0.9	2.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.1	2.7	5.1	1.6	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.7	14.6	14.6	14.5	20.0	1.5
LnGrp LOS	E	B	B	B	B	A
Approach Vol, veh/h	102		641			339
Approach Delay, s/veh	62.2		14.6			6.5
Approach LOS	E		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	56.7	51.0			107.7	12.3
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	23.0	47.0			74.0	38.0
Max Q Clear Time (g_c+I1), s	5.6	17.8			4.4	8.3
Green Ext Time (p_c), s	0.2	3.0			1.6	0.3
Intersection Summary						
HCM 6th Ctrl Delay			16.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	44	2	400	0	0	0	0	514	121	13	285	0
Future Volume (veh/h)	44	2	400	0	0	0	0	514	121	13	285	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	53	2	482				0	619	146	16	343	0
Peak Hour Factor	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
Cap, veh/h	364	14	335				0	823	698	22	468	0
Arrive On Green	0.21	0.21	0.21				0.00	0.87	0.87	0.52	0.52	0.00
Sat Flow, veh/h	1747	66	1610				0	1900	1610	84	1811	0
Grp Volume(v), veh/h	55	0	482				0	619	146	359	0	0
Grp Sat Flow(s),veh/h/ln	1813	0	1610				0	1900	1610	1896	0	0
Q Serve(g_s), s	3.0	0.0	25.0				0.0	15.0	1.8	17.7	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	25.0				0.0	15.0	1.8	17.7	0.0	0.0
Prop In Lane	0.96		1.00				0.00		1.00	0.04		0.00
Lane Grp Cap(c), veh/h	378	0	335				0	823	698	490	0	0
V/C Ratio(X)	0.15	0.00	1.44				0.00	0.75	0.21	0.73	0.00	0.00
Avail Cap(c_a), veh/h	378	0	335				0	823	698	490	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.95	0.95	0.97	0.00	0.00
Uniform Delay (d), s/veh	38.8	0.0	47.5				0.0	5.5	4.7	25.8	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	212.9				0.0	6.0	0.6	9.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.0	29.8				0.0	3.9	0.7	7.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	0.0	260.4				0.0	11.5	5.3	34.9	0.0	0.0
LnGrp LOS	D	A	F				A	B	A	C	A	A
Approach Vol, veh/h		537						765			359	
Approach Delay, s/veh		237.7						10.3			34.9	
Approach LOS		F						B			C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		56.0		29.0				35.0				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		52.0		25.0				31.0				
Max Q Clear Time (g_c+I1), s		17.0		27.0				19.7				
Green Ext Time (p_c), s		5.3		0.0				1.6				
Intersection Summary												
HCM 6th Ctrl Delay			89.1									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↔	↔	↑	↔	↔	↑↑	↔	↔	↑↑	↔
Traffic Volume (veh/h)	188	64	79	20	33	37	94	409	17	136	398	151
Future Volume (veh/h)	188	64	79	20	33	37	94	409	17	136	398	151
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		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	227	77	95	24	40	45	113	493	20	164	480	182
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	295	210	178	58	111	94	647	2224	992	196	1324	590
Arrive On Green	0.08	0.11	0.11	0.03	0.06	0.06	0.36	0.62	0.62	0.11	0.37	0.37
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	227	77	95	24	40	45	113	493	20	164	480	182
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	7.6	4.5	3.5	1.6	2.4	3.2	5.1	7.3	0.6	10.7	11.7	7.4
Cycle Q Clear(g_c), s	7.6	4.5	3.5	1.6	2.4	3.2	5.1	7.3	0.6	10.7	11.7	7.4
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	295	210	178	58	111	94	647	2224	992	196	1324	590
V/C Ratio(X)	0.77	0.37	0.53	0.41	0.36	0.48	0.17	0.22	0.02	0.84	0.36	0.31
Avail Cap(c_a), veh/h	556	491	416	136	333	282	647	2224	992	407	1324	590
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	53.8	49.5	13.8	57.0	54.3	54.7	26.4	10.2	9.0	52.5	27.8	15.8
Incr Delay (d2), s/veh	4.2	1.1	2.5	4.6	2.0	3.7	0.1	0.2	0.0	5.2	0.4	0.7
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	0.0
%ile BackOfQ(50%),veh/ln	8.5	2.2	2.7	0.8	1.2	1.4	2.3	2.9	0.2	5.1	5.1	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	50.6	16.3	61.6	56.3	58.5	26.5	10.5	9.0	57.7	28.2	16.5
LnGrp LOS	E	D	B	E	E	E	C	B	A	E	C	B
Approach Vol, veh/h		399			109			626			826	
Approach Delay, s/veh		46.6			58.4			13.3			31.5	
Approach LOS		D			E			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	77.9	7.9	17.2	46.9	48.0	14.1	11.0				
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	27.0	37.0	9.0	31.0	20.0	44.0	19.0	21.0				
Max Q Clear Time (g_c+M), s	12.5	9.3	3.6	6.5	7.1	13.7	9.6	5.2				
Green Ext Time (p_c), s	0.4	3.6	0.0	0.7	0.2	4.1	0.5	0.2				

Intersection Summary

HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↗			↕	
Traffic Vol, veh/h	10	79	39	11	72	2	26	2	11	0	1	4
Future Vol, veh/h	10	79	39	11	72	2	26	2	11	0	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	90	44	13	82	2	30	2	13	0	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	134	0	0	224	222	90	250	264	82
Stage 1	-	-	-	-	-	-	112	112	-	108	108	-
Stage 2	-	-	-	-	-	-	112	110	-	142	156	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1526	-	-	1463	-	-	736	680	973	708	645	983
Stage 1	-	-	-	-	-	-	898	807	-	902	810	-
Stage 2	-	-	-	-	-	-	898	808	-	866	772	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1526	-	-	1463	-	-	723	669	973	689	635	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	733	668	-	689	635	-
Stage 1	-	-	-	-	-	-	892	801	-	896	803	-
Stage 2	-	-	-	-	-	-	885	801	-	846	767	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1	9.7	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	733	909	1526	-	-	1463	-	-	886
HCM Lane V/C Ratio	0.04	0.016	0.007	-	-	0.009	-	-	0.006
HCM Control Delay (s)	10.1	9	7.4	-	-	7.5	-	-	9.1
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	2	35	0	0	54	0	0	0	0	2	0	0
Future Vol, veh/h	2	35	0	0	54	0	0	0	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	92	92	90	90	92	92	92	90	92	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	39	0	0	60	0	0	0	0	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	39	0	0	73	103	39	103	103	30
Stage 1	-	-	-	-	-	-	43	43	-	60	60	-
Stage 2	-	-	-	-	-	-	30	60	-	43	43	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1572	-	-	1584	-	-	941	805	1038	899	805	1069
Stage 1	-	-	-	-	-	-	976	863	-	969	860	-
Stage 2	-	-	-	-	-	-	1009	860	-	976	863	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1572	-	-	1584	-	-	940	805	1038	898	805	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	879	760	-	853	760	-
Stage 1	-	-	-	-	-	-	975	862	-	968	860	-
Stage 2	-	-	-	-	-	-	1009	860	-	975	862	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	0	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1572	-	-	1584	-	-	853
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	0.003
HCM Control Delay (s)		0	7.3	-	-	0	-	9.2
HCM Lane LOS		A	A	-	-	A	-	A
HCM 95th %tile Q(veh)		-	0	-	-	0	-	0

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	2	4	2	0	1	0	5	0	0	0
Future Vol, veh/h	0	1	2	4	2	0	1	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	75	75	75	75	92	75	92	75	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	3	5	3	0	1	0	7	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	4	0	0	16	16	3	19	17	3
Stage 1	-	-	-	-	-	-	3	3	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	6	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1632	-	-	1631	-	-	1004	882	1087	1000	881	1087
Stage 1	-	-	-	-	-	-	1025	897	-	1013	889	-
Stage 2	-	-	-	-	-	-	1013	889	-	1021	897	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1632	-	-	1631	-	-	1002	879	1087	992	878	1087
Mov Cap-2 Maneuver	-	-	-	-	-	-	1002	879	-	992	878	-
Stage 1	-	-	-	-	-	-	1025	897	-	1013	886	-
Stage 2	-	-	-	-	-	-	1010	886	-	1015	897	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			4.8			8.4			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1072	1632	-	-	1631	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-	0.003	-	-	-
HCM Control Delay (s)	8.4	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	6	0	0	5	0	1	0	15	0	0	0
Future Vol, veh/h	0	6	0	0	5	0	1	0	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	10	0	0	8	0	2	0	25	0	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	8	0	0	10	0	0	18	18	10	31	18	8
Stage 1	-	-	-	-	-	-	10	10	-	8	8	-
Stage 2	-	-	-	-	-	-	8	8	-	23	10	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1625	-	-	1623	-	-	1001	880	1077	982	880	1080
Stage 1	-	-	-	-	-	-	1016	891	-	1019	893	-
Stage 2	-	-	-	-	-	-	1019	893	-	1000	891	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1625	-	-	1623	-	-	1001	880	1077	959	880	1080
Mov Cap-2 Maneuver	-	-	-	-	-	-	1001	880	-	959	880	-
Stage 1	-	-	-	-	-	-	1016	891	-	1019	893	-
Stage 2	-	-	-	-	-	-	1019	893	-	977	891	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.4	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1072	1625	-	-	1623	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-	-	-	-	-
HCM Control Delay (s)	8.4	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	21	0	1	5	0	0	0	5	0	0	0
Future Vol, veh/h	0	21	0	1	5	0	0	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	35	0	2	8	0	0	0	8	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	35	0	0	47	47	18	30	47	8
Stage 1	-	-	-	-	-	-	35	35	-	12	12	-
Stage 2	-	-	-	-	-	-	12	12	-	18	35	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1625	-	-	1589	-	-	957	849	1063	982	849	1080
Stage 1	-	-	-	-	-	-	982	870	-	1014	890	-
Stage 2	-	-	-	-	-	-	1014	890	-	1004	870	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1625	-	-	1589	-	-	956	848	1063	973	848	1080
Mov Cap-2 Maneuver	-	-	-	-	-	-	956	848	-	973	848	-
Stage 1	-	-	-	-	-	-	982	870	-	1014	889	-
Stage 2	-	-	-	-	-	-	1013	889	-	996	870	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.2	8.4	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1063	1625	-	-	1589	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-	0.001	-	-	-
HCM Control Delay (s)	8.4	0	-	-	7.3	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	2	1	3	38	0	31	5	399	155	356	332	2
Future Volume (veh/h)	2	1	3	38	0	31	5	399	155	356	332	2
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		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	2	1	4	45	0	36	6	469	182	419	391	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	7	20	58	0	46	532	1040	980	445	944	5
Arrive On Green	0.01	0.01	0.01	0.06	0.00	0.06	0.59	1.00	1.00	0.25	0.50	0.50
Sat Flow, veh/h	1226	613	1610	953	0	762	1810	1900	1610	1810	1889	10
Grp Volume(v), veh/h	3	0	4	81	0	0	6	469	182	419	0	393
Grp Sat Flow(s),veh/h/ln	1839	0	1610	1715	0	0	1810	1900	1610	1810	0	1898
Q Serve(g_s), s	0.2	0.0	0.3	5.6	0.0	0.0	0.2	0.0	0.0	27.3	0.0	15.7
Cycle Q Clear(g_c), s	0.2	0.0	0.3	5.6	0.0	0.0	0.2	0.0	0.0	27.3	0.0	15.7
Prop In Lane	0.67		1.00	0.56		0.44	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	22	0	20	104	0	0	532	1040	980	445	0	949
V/C Ratio(X)	0.13	0.00	0.20	0.78	0.00	0.00	0.01	0.45	0.19	0.94	0.00	0.41
Avail Cap(c_a), veh/h	283	0	248	264	0	0	532	1040	980	467	0	949
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	0.00	1.00	1.00	0.00	0.00	0.94	0.94	0.94	0.80	0.00	0.80
Uniform Delay (d), s/veh	58.6	0.0	58.7	55.6	0.0	0.0	17.5	0.0	0.0	44.4	0.0	18.9
Incr Delay (d2), s/veh	2.7	0.0	5.0	11.7	0.0	0.0	0.0	1.3	0.4	23.1	0.0	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	0.1	0.0	0.1	2.8	0.0	0.0	0.1	0.4	0.1	15.0	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	0.0	63.7	67.2	0.0	0.0	17.5	1.3	0.4	67.4	0.0	20.0
LnGrp LOS	E	A	E	E	A	A	B	A	A	E	A	B
Approach Vol, veh/h		7			81			657				812
Approach Delay, s/veh		62.7			67.2			1.2				44.5
Approach LOS		E			E			A				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	33.5	69.7		5.5	39.3	64.0		11.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	31.0	36.0		18.5	7.0	60.0		18.5				
Max Q Clear Time (g_c+I1), s	29.3	2.0		2.3	2.2	17.7		7.6				
Green Ext Time (p_c), s	0.3	3.9		0.0	0.0	2.7		0.2				

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↕			↕	↕
Traffic Volume (veh/h)	131	0	81	0	0	0	69	428	0	0	339	34
Future Volume (veh/h)	131	0	81	0	0	0	69	428	0	0	339	34
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	164	0	101				86	535	0	0	424	42
Peak Hour Factor	0.80	0.92	0.80				0.80	0.80	0.92	0.92	0.80	0.80
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	190	0	117				478	1436	0	0	871	1024
Arrive On Green	0.18	0.00	0.18				0.53	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h	1069	0	659				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	265	0	0				86	535	0	0	424	42
Grp Sat Flow(s),veh/h/ln	1728	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	17.9	0.0	0.0				3.0	0.0	0.0	0.0	18.7	1.2
Cycle Q Clear(g_c), s	17.9	0.0	0.0				3.0	0.0	0.0	0.0	18.7	1.2
Prop In Lane	0.62		0.38				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	307	0	0				478	1436	0	0	871	1024
V/C Ratio(X)	0.86	0.00	0.00				0.18	0.37	0.00	0.00	0.49	0.04
Avail Cap(c_a), veh/h	533	0	0				478	1436	0	0	871	1024
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.94	0.94	0.00	0.00	0.98	0.98
Uniform Delay (d), s/veh	47.9	0.0	0.0				21.5	0.0	0.0	0.0	22.7	8.2
Incr Delay (d2), s/veh	7.2	0.0	0.0				0.2	0.7	0.0	0.0	1.9	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
%ile BackOfQ(50%),veh/ln	8.3	0.0	0.0				1.3	0.3	0.0	0.0	8.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	0.0	0.0				21.7	0.7	0.0	0.0	24.6	8.2
LnGrp LOS	E	A	A				C	A	A	A	C	A
Approach Vol, veh/h		265						621			466	
Approach Delay, s/veh		55.1						3.6			23.1	
Approach LOS		E						A			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		94.7		25.3	35.7	59.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		75.0		37.0	16.0	55.0						
Max Q Clear Time (g_c+I1), s		2.0		19.9	5.0	20.7						
Green Ext Time (p_c), s		4.1		1.5	0.1	3.0						
Intersection Summary												
HCM 6th Ctrl Delay											20.4	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 Int.12: Redlands Blvd & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↗			↕	↗
Traffic Volume (veh/h)	43	0	12	0	0	16	13	438	0	0	349	71
Future Volume (veh/h)	43	0	12	0	0	16	13	438	0	0	349	71
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		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	54	0	15	0	0	20	16	554	0	0	442	90
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	0	123	0	0	46	44	1556	0	0	1447	1311
Arrive On Green	0.05	0.00	0.05	0.00	0.00	0.03	0.02	0.82	0.00	0.00	0.76	0.76
Sat Flow, veh/h	1810	0	1610	0	0	1610	1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	54	0	15	0	0	20	16	554	0	0	442	90
Grp Sat Flow(s),veh/h/ln	1810	0	1610	0	0	1610	1810	1900	0	0	1900	1610
Q Serve(g_s), s	3.5	0.0	1.0	0.0	0.0	1.5	1.0	8.9	0.0	0.0	8.7	1.3
Cycle Q Clear(g_c), s	3.5	0.0	1.0	0.0	0.0	1.5	1.0	8.9	0.0	0.0	8.7	1.3
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	95	0	123	0	0	46	44	1556	0	0	1447	1311
V/C Ratio(X)	0.57	0.00	0.12	0.00	0.00	0.44	0.37	0.36	0.00	0.00	0.31	0.07
Avail Cap(c_a), veh/h	317	0	321	0	0	255	136	1556	0	0	1447	1311
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	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh	55.5	0.0	51.6	0.0	0.0	57.4	57.7	2.8	0.0	0.0	4.4	2.2
Incr Delay (d2), s/veh	5.3	0.0	0.4	0.0	0.0	6.5	5.1	0.6	0.0	0.0	0.5	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	1.7	0.0	0.4	0.0	0.0	0.7	0.5	2.7	0.0	0.0	3.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	0.0	52.1	0.0	0.0	63.8	62.7	3.4	0.0	0.0	5.0	2.3
LnGrp LOS	E	A	D	A	A	E	E	A	A	A	A	A
Approach Vol, veh/h		69			20			570			532	
Approach Delay, s/veh		58.9			63.8			5.1			4.5	
Approach LOS		E			E			A			A	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		102.3		10.3	6.9	95.4		7.4				
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s		68.0		21.0	9.0	55.0		19.0				
Max Q Clear Time (g_c+I1), s		10.9		5.5	3.0	10.7		3.5				
Green Ext Time (p_c), s		4.2		0.2	0.0	3.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay											8.9	
HCM 6th LOS											A	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	2	0	433	347	5
Future Vol, veh/h	22	2	0	433	347	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	28	3	0	548	439	6













Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	990	442	445	0	-	0
Stage 1	442	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	260	748	1141	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	260	748	1141	-	-	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1141	-	260	748	-	-
HCM Lane V/C Ratio	-	-	0.107	0.003	-	-
HCM Control Delay (s)	0	-	20.5	9.8	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	0	-	-

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	92	8	247	442	36	237
Future Volume (veh/h)	92	8	247	442	36	237
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	9	266	475	39	255
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	128	778	792	785	746	1639
Arrive On Green	0.07	0.07	0.70	0.70	0.41	0.86
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	99	9	266	475	39	255
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	6.5	0.0	6.7	18.6	1.6	2.6
Cycle Q Clear(g_c), s	6.5	0.0	6.7	18.6	1.6	2.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	128	778	792	785	746	1639
V/C Ratio(X)	0.77	0.01	0.34	0.61	0.05	0.16
Avail Cap(c_a), veh/h	679	1268	792	785	746	1639
HCM Platoon Ratio	1.00	1.00	1.67	1.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.75	0.75	1.00	1.00
Uniform Delay (d), s/veh	54.8	16.1	11.7	10.7	21.2	1.3
Incr Delay (d2), s/veh	9.4	0.0	0.9	2.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.1	2.7	5.5	0.7	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.2	16.1	12.5	13.3	21.2	1.5
LnGrp LOS	E	B	B	B	C	A
Approach Vol, veh/h	108		741			294
Approach Delay, s/veh	60.2		13.0			4.1
Approach LOS	E		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	53.5	54.0			107.5	12.5
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	13.0	50.0			67.0	45.0
Max Q Clear Time (g_c+I1), s	3.6	20.6			4.6	8.5
Green Ext Time (p_c), s	0.0	3.6			1.7	0.3
Intersection Summary						
HCM 6th Ctrl Delay			15.2			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	65	2	525	0	0	0	0	624	168	8	321	0
Future Volume (veh/h)	65	2	525	0	0	0	0	624	168	8	321	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	66	2	536				0	637	171	8	328	0
Peak Hour Factor	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
Cap, veh/h	381	12	349				0	839	711	11	448	0
Arrive On Green	0.22	0.22	0.22				0.00	0.15	0.15	0.16	0.16	0.00
Sat Flow, veh/h	1759	53	1610				0	1900	1610	45	1853	0
Grp Volume(v), veh/h	68	0	536				0	637	171	336	0	0
Grp Sat Flow(s),veh/h/ln	1812	0	1610				0	1900	1610	1898	0	0
Q Serve(g_s), s	3.7	0.0	26.0				0.0	38.6	11.3	20.2	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	26.0				0.0	38.6	11.3	20.2	0.0	0.0
Prop In Lane	0.97		1.00				0.00		1.00	0.02		0.00
Lane Grp Cap(c), veh/h	393	0	349				0	839	711	459	0	0
V/C Ratio(X)	0.17	0.00	1.54				0.00	0.76	0.24	0.73	0.00	0.00
Avail Cap(c_a), veh/h	393	0	349				0	839	711	459	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.89	0.89	0.97	0.00	0.00
Uniform Delay (d), s/veh	38.3	0.0	47.0				0.0	45.1	33.4	46.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	255.3				0.0	5.7	0.7	9.7	0.0	0.0
Initial Q Delay(d3),s/veh	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	0.0	35.1				0.0	21.0	5.0	11.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	302.3				0.0	50.8	34.1	56.3	0.0	0.0
LnGrp LOS	D	A	F				A	D	C	E	A	A
Approach Vol, veh/h		604						808			336	
Approach Delay, s/veh		272.6						47.3			56.3	
Approach LOS		F						D			E	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		57.0		30.0			33.0					
Change Period (Y+Rc), s		4.0		4.0			4.0					
Max Green Setting (Gmax), s		53.0		26.0			29.0					
Max Q Clear Time (g_c+I1), s		40.6		28.0			22.2					
Green Ext Time (p_c), s		4.0		0.0			1.1					
Intersection Summary												
HCM 6th Ctrl Delay			126.9									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	338	39	135	33	57	125	114	329	5	56	549	241
Future Volume (veh/h)	338	39	135	33	57	125	114	329	5	56	549	241
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		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	360	41	144	35	61	133	121	350	5	60	584	256
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	438	354	300	73	193	164	149	1384	617	465	2014	898
Arrive On Green	0.12	0.19	0.19	0.04	0.10	0.10	0.08	0.38	0.38	0.26	0.56	0.56
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	360	41	144	35	61	133	121	350	5	60	584	256
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	12.0	2.2	9.6	2.3	3.6	9.7	7.9	7.9	0.2	3.1	10.2	5.7
Cycle Q Clear(g_c), s	12.0	2.2	9.6	2.3	3.6	9.7	7.9	7.9	0.2	3.1	10.2	5.7
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	438	354	300	73	193	164	149	1384	617	465	2014	898
V/C Ratio(X)	0.82	0.12	0.48	0.48	0.32	0.81	0.81	0.25	0.01	0.13	0.29	0.29
Avail Cap(c_a), veh/h	731	602	510	136	348	295	287	1384	617	465	2014	898
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.53	0.53	0.53
Uniform Delay (d), s/veh	51.2	40.6	43.6	56.4	50.0	52.8	54.1	25.3	15.6	34.3	14.0	4.5
Incr Delay (d2), s/veh	3.9	0.1	1.2	4.9	0.9	9.3	10.0	0.4	0.0	0.1	0.2	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	5.5	1.0	3.9	1.1	1.8	4.3	4.0	3.5	0.1	1.4	4.2	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	40.7	44.8	61.2	51.0	62.1	64.2	25.7	15.7	34.3	14.2	4.9
LnGrp LOS	E	D	D	E	D	E	E	C	B	C	B	A
Approach Vol, veh/h		545			229			476			900	
Approach Delay, s/veh		51.3			59.0			35.4			12.9	
Approach LOS		D			E			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.8	50.0	8.8	26.4	13.9	70.9	19.0	16.2				
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	46.0	9.0	38.0	19.0	38.0	25.0	22.0					
Max Q Clear Time (g_c+1), s	9.9	4.3	11.6	9.9	12.2	14.0	11.7					
Green Ext Time (p_c), s	0.0	2.5	0.0	0.7	0.2	5.2	1.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	66	27	12	95	1	57	5	6	0	5	16
Future Vol, veh/h	12	66	27	12	95	1	57	5	6	0	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	80	33	15	116	1	70	6	7	0	6	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	113	0	0	270	257	80	279	289	116
Stage 1	-	-	-	-	-	-	110	110	-	146	146	-
Stage 2	-	-	-	-	-	-	160	147	-	133	143	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1484	-	-	1489	-	-	687	651	986	677	624	942
Stage 1	-	-	-	-	-	-	900	808	-	861	780	-
Stage 2	-	-	-	-	-	-	847	779	-	875	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1489	-	-	657	638	986	657	612	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	681	645	-	657	612	-
Stage 1	-	-	-	-	-	-	891	800	-	852	772	-
Stage 2	-	-	-	-	-	-	815	771	-	853	774	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.8			10.7			9.4		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	681	795	1484	-	-	1489	-	-	835
HCM Lane V/C Ratio	0.102	0.017	0.01	-	-	0.01	-	-	0.031
HCM Control Delay (s)	10.9	9.6	7.5	-	-	7.4	-	-	9.4
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	0	40	0	0	57	0	0	0	0	0	0	0
Future Vol, veh/h	0	40	0	0	57	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	47	0	0	66	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	66	0	0	47	0	0	80	113	47	113	113	33
Stage 1	-	-	-	-	-	-	47	47	-	66	66	-
Stage 2	-	-	-	-	-	-	33	66	-	47	47	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1564	-	-	1573	-	-	931	795	1028	885	795	1065
Stage 1	-	-	-	-	-	-	972	860	-	962	855	-
Stage 2	-	-	-	-	-	-	1005	855	-	972	860	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1564	-	-	1573	-	-	931	795	1028	885	795	1065
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	754	-	845	754	-
Stage 1	-	-	-	-	-	-	972	860	-	962	855	-
Stage 2	-	-	-	-	-	-	1005	855	-	972	860	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			0			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1564	-	-	1573	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	11	1	0	0	0	3	0	0	0
Future Vol, veh/h	0	0	0	11	1	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	58	58	58	58	92	58	92	58	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	19	2	0	0	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	2	0	0	42	42	2	45	42	2
Stage 1	-	-	-	-	-	-	2	2	-	40	40	-
Stage 2	-	-	-	-	-	-	40	40	-	5	2	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1634	-	-	966	854	1088	962	854	1088
Stage 1	-	-	-	-	-	-	1026	898	-	980	866	-
Stage 2	-	-	-	-	-	-	980	866	-	1022	898	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1634	-	-	1634	-	-	957	844	1088	949	844	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	957	844	-	949	844	-
Stage 1	-	-	-	-	-	-	1026	898	-	980	856	-
Stage 2	-	-	-	-	-	-	968	856	-	1017	898	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			6.6			8.3			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1088	1634	-	-	1634	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	0.012	-	-	-
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	3	0	6	12	0	0	0	3	0	0	0
Future Vol, veh/h	0	3	0	6	12	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	5	0	10	20	0	0	0	5	0	0	0

Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	20	0	0	5	0	0	45	45	5	48	45	20
Stage 1	-	-	-	-	-	-	5	5	-	40	40	-
Stage 2	-	-	-	-	-	-	40	40	-	8	5	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1609	-	-	1630	-	-	962	851	1084	958	851	1064
Stage 1	-	-	-	-	-	-	1022	896	-	980	866	-
Stage 2	-	-	-	-	-	-	980	866	-	1019	896	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1609	-	-	1630	-	-	957	846	1084	949	846	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	957	846	-	949	846	-
Stage 1	-	-	-	-	-	-	1022	896	-	980	861	-
Stage 2	-	-	-	-	-	-	974	861	-	1014	896	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	8.3	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1084	1609	-	-	1630	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	0.006	-	-	-
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

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	6	0	3	18	0	0	0	2	0	0	0
Future Vol, veh/h	0	6	0	3	18	0	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	64	64	64	64	92	64	92	64	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	9	0	5	28	0	0	0	3	0	0	0

Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	28	0	0	9	0	0	47	47	5	43	47	28
Stage 1	-	-	-	-	-	-	9	9	-	38	38	-
Stage 2	-	-	-	-	-	-	38	38	-	5	9	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1599	-	-	1624	-	-	957	849	1083	963	849	1053
Stage 1	-	-	-	-	-	-	1016	892	-	982	867	-
Stage 2	-	-	-	-	-	-	982	867	-	1022	892	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1599	-	-	1624	-	-	955	846	1083	958	846	1053
Mov Cap-2 Maneuver	-	-	-	-	-	-	955	846	-	958	846	-
Stage 1	-	-	-	-	-	-	1016	892	-	982	864	-
Stage 2	-	-	-	-	-	-	979	864	-	1019	892	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	8.3	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1083	1599	-	-	1624	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	0.003	-	-	-
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	0	6	1	23	0	20	3	682	98	379	429	0
Future Volume (veh/h)	0	6	1	23	0	20	3	682	98	379	429	0
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		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	0	6	1	23	0	20	3	696	100	387	438	0
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	0	23	20	41	0	35	10	681	649	817	1529	0
Arrive On Green	0.00	0.01	0.01	0.04	0.00	0.04	0.00	0.24	0.24	0.90	1.00	0.00
Sat Flow, veh/h	0	1900	1610	915	0	796	1810	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	6	1	43	0	0	3	696	100	387	438	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1711	0	0	1810	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.4	0.1	3.0	0.0	0.0	0.2	43.0	5.5	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.4	0.1	3.0	0.0	0.0	0.2	43.0	5.5	4.3	0.0	0.0
Prop In Lane	0.00		1.00	0.53		0.47	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	23	20	76	0	0	10	681	649	817	1529	0
V/C Ratio(X)	0.00	0.26	0.05	0.57	0.00	0.00	0.30	1.02	0.15	0.47	0.29	0.00
Avail Cap(c_a), veh/h	0	293	248	264	0	0	106	681	649	817	1529	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00	0.94	0.94	0.94	0.80	0.80	0.00
Uniform Delay (d), s/veh	0.0	58.7	58.6	56.2	0.0	0.0	59.5	45.6	27.3	3.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	5.8	1.1	6.5	0.0	0.0	14.8	39.2	0.5	0.3	0.4	0.0
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	0.0	0.2	0.0	1.4	0.0	0.0	0.1	28.4	2.4	1.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	64.6	59.7	62.7	0.0	0.0	74.3	84.8	27.8	3.7	0.4	0.0
LnGrp LOS	A	E	E	E	A	A	E	F	C	A	A	A
Approach Vol, veh/h		7			43			799			825	
Approach Delay, s/veh		63.9			62.7			77.6			1.9	
Approach LOS		E			E			E			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	58.2	47.0		5.5	4.7	100.5		9.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	24.0	43.0		18.5	7.0	60.0		18.5				
Max Q Clear Time (g_c+I1), s	6.3	45.0		2.4	2.2	2.0		5.0				
Green Ext Time (p_c), s	1.1	0.0		0.0	0.0	3.1		0.1				

Intersection Summary

HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑			↑	↕
Traffic Volume (veh/h)	403	0	136	0	0	0	70	380	0	0	416	37
Future Volume (veh/h)	403	0	136	0	0	0	70	380	0	0	416	37
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	420	0	142				73	396	0	0	433	39
Peak Hour Factor	0.96	0.92	0.96				0.96	0.96	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	460	0	155				315	1107	0	0	712	1168
Arrive On Green	0.35	0.00	0.35				0.35	1.00	0.00	0.00	0.75	0.75
Sat Flow, veh/h	1311	0	443				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	562	0	0				73	396	0	0	433	39
Grp Sat Flow(s),veh/h/ln	1755	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	36.7	0.0	0.0				3.4	0.0	0.0	0.0	12.6	0.3
Cycle Q Clear(g_c), s	36.7	0.0	0.0				3.4	0.0	0.0	0.0	12.6	0.3
Prop In Lane	0.75		0.25				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	615	0	0				315	1107	0	0	713	1168
V/C Ratio(X)	0.91	0.00	0.00				0.23	0.36	0.00	0.00	0.61	0.03
Avail Cap(c_a), veh/h	775	0	0				315	1107	0	0	713	1168
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00				0.98	0.98	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh	37.2	0.0	0.0				33.4	0.0	0.0	0.0	10.9	1.8
Incr Delay (d2), s/veh	13.1	0.0	0.0				0.4	0.9	0.0	0.0	3.7	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
%ile BackOfQ(50%),veh/ln	17.8	0.0	0.0				1.5	0.3	0.0	0.0	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	0.0	0.0				33.8	0.9	0.0	0.0	14.7	1.9
LnGrp LOS	D	A	A				C	A	A	A	B	A
Approach Vol, veh/h		562						469			472	
Approach Delay, s/veh		50.3						6.0			13.6	
Approach LOS		D						A			B	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		73.9		46.1	24.9	49.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		59.0		53.0	10.0	45.0						
Max Q Clear Time (g_c+I1), s		2.0		38.7	5.4	14.6						
Green Ext Time (p_c), s		2.7		3.4	0.0	3.0						
Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 Int.12: Redlands Blvd & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↑			↕	↗
Traffic Volume (veh/h)	34	0	22	0	0	24	13	391	0	0	510	42
Future Volume (veh/h)	34	0	22	0	0	24	13	391	0	0	510	42
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		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	0	1900	1900	1900
Adj Flow Rate, veh/h	36	0	23	0	0	25	14	412	0	0	537	44
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	91	0	537	0	0	53	513	1552	0	0	950	886
Arrive On Green	0.05	0.00	0.05	0.00	0.00	0.03	0.28	0.82	0.00	0.00	1.00	1.00
Sat Flow, veh/h	1810	0	1610	0	0	1610	1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	36	0	23	0	0	25	14	412	0	0	537	44
Grp Sat Flow(s),veh/h/ln	1810	0	1610	0	0	1610	1810	1900	0	0	1900	1610
Q Serve(g_s), s	2.3	0.0	0.0	0.0	0.0	1.8	0.7	6.1	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	0.0	0.0	1.8	0.7	6.1	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	91	0	537	0	0	53	513	1552	0	0	950	886
V/C Ratio(X)	0.40	0.00	0.04	0.00	0.00	0.47	0.03	0.27	0.00	0.00	0.57	0.05
Avail Cap(c_a), veh/h	287	0	711	0	0	242	513	1552	0	0	950	886
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(l)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.88	0.88
Uniform Delay (d), s/veh	55.2	0.0	27.0	0.0	0.0	57.0	31.0	2.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.0	0.0	6.3	0.0	0.4	0.0	0.0	2.1	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	1.1	0.0	0.5	0.0	0.0	0.8	0.3	1.9	0.0	0.0	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	0.0	27.1	0.0	0.0	63.3	31.1	3.0	0.0	0.0	2.1	0.1
LnGrp LOS	E	A	C	A	A	E	C	A	A	A	A	A
Approach Vol, veh/h		59			25			426			581	
Approach Delay, s/veh		45.9			63.3			3.9			2.0	
Approach LOS		D			E			A			A	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		102.0		10.0	38.0	64.0		8.0				
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s		71.0		19.0	7.0	60.0		18.0				
Max Q Clear Time (g_c+I1), s		8.1		4.3	2.7	2.0		3.8				
Green Ext Time (p_c), s		2.9		0.1	0.0	4.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			6.5									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷		↶	↷	
Traffic Vol, veh/h	8	0	0	404	506	17
Future Vol, veh/h	8	0	0	404	506	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
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	8	0	0	421	527	18













Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	957	536	545	0	-	0
Stage 1	536	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*282	*663	*994	-	-	-
Stage 1	*625	-	-	-	-	-
Stage 2	*667	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*282	*663	*994	-	-	-
Mov Cap-2 Maneuver	*282	-	-	-	-	-
Stage 1	*625	-	-	-	-	-
Stage 2	*667	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	*994	-	282	-	-	-
HCM Lane V/C Ratio	-	-	0.03	-	-	-
HCM Control Delay (s)	0	-	18.2	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	84	4	209	378	81	217
Future Volume (veh/h)	84	4	209	378	81	217
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	5	240	434	93	249
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	125	819	744	742	795	1642
Arrive On Green	0.07	0.07	0.65	0.65	0.44	0.86
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	97	5	240	434	93	249
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	6.3	0.0	6.6	18.0	3.6	2.5
Cycle Q Clear(g_c), s	6.3	0.0	6.6	18.0	3.6	2.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	125	819	744	742	795	1642
V/C Ratio(X)	0.77	0.01	0.32	0.58	0.12	0.15
Avail Cap(c_a), veh/h	633	1271	744	742	795	1642
HCM Platoon Ratio	1.00	1.00	1.67	1.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.73	0.73	1.00	1.00
Uniform Delay (d), s/veh	54.9	14.5	13.8	12.7	19.9	1.3
Incr Delay (d2), s/veh	9.7	0.0	0.8	2.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.1	2.7	5.8	1.6	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.6	14.6	14.6	15.1	20.0	1.5
LnGrp LOS	E	B	B	B	B	A
Approach Vol, veh/h	102		674			342
Approach Delay, s/veh	62.2		15.0			6.5
Approach LOS	E		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	56.7	51.0			107.7	12.3
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	19.0	47.0			70.0	42.0
Max Q Clear Time (g_c+I1), s	5.6	20.0			4.5	8.3
Green Ext Time (p_c), s	0.2	3.1			1.6	0.3
Intersection Summary						
HCM 6th Ctrl Delay			16.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	44	2	496	0	0	0	0	543	121	13	288	0
Future Volume (veh/h)	44	2	496	0	0	0	0	543	121	13	288	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	53	2	598				0	654	146	16	347	0
Peak Hour Factor	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
Cap, veh/h	378	14	349				0	839	711	20	438	0
Arrive On Green	0.22	0.22	0.22				0.00	0.59	0.59	0.08	0.08	0.00
Sat Flow, veh/h	1747	66	1610				0	1900	1610	84	1812	0
Grp Volume(v), veh/h	55	0	598				0	654	146	363	0	0
Grp Sat Flow(s),veh/h/ln	1813	0	1610				0	1900	1610	1896	0	0
Q Serve(g_s), s	2.9	0.0	26.0				0.0	31.4	5.1	22.6	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	26.0				0.0	31.4	5.1	22.6	0.0	0.0
Prop In Lane	0.96		1.00				0.00		1.00	0.04		0.00
Lane Grp Cap(c), veh/h	393	0	349				0	839	711	458	0	0
V/C Ratio(X)	0.14	0.00	1.71				0.00	0.78	0.21	0.79	0.00	0.00
Avail Cap(c_a), veh/h	393	0	349				0	839	711	458	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.92	0.92	0.97	0.00	0.00
Uniform Delay (d), s/veh	38.0	0.0	47.0				0.0	20.3	14.9	52.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	333.3				0.0	6.5	0.6	12.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3	0.0	42.6				0.0	13.5	1.9	13.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	380.3				0.0	26.8	15.5	65.0	0.0	0.0
LnGrp LOS	D	A	F				A	C	B	E	A	A
Approach Vol, veh/h		653						800			363	
Approach Delay, s/veh		351.5						24.8			65.0	
Approach LOS		F						C			E	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		57.0		30.0				33.0				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		53.0		26.0				29.0				
Max Q Clear Time (g_c+I1), s		33.4		28.0				24.6				
Green Ext Time (p_c), s		5.0		0.0				0.9				
Intersection Summary												
HCM 6th Ctrl Delay			150.3									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	188	69	79	21	35	66	94	409	20	236	398	151
Future Volume (veh/h)	188	69	79	21	35	66	94	409	20	236	398	151
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		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	227	83	95	25	42	80	113	493	24	284	480	182
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	291	224	190	60	129	109	140	1053	470	768	2305	1028
Arrive On Green	0.08	0.12	0.12	0.03	0.07	0.07	0.08	0.29	0.29	0.42	0.64	0.64
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	227	83	95	25	42	80	113	493	24	284	480	182
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	7.6	4.8	6.6	1.6	2.5	5.8	7.4	13.4	1.1	12.9	6.7	3.2
Cycle Q Clear(g_c), s	7.6	4.8	6.6	1.6	2.5	5.8	7.4	13.4	1.1	12.9	6.7	3.2
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	291	224	190	60	129	109	140	1053	470	768	2305	1028
V/C Ratio(X)	0.78	0.37	0.50	0.42	0.33	0.73	0.81	0.47	0.05	0.37	0.21	0.18
Avail Cap(c_a), veh/h	439	443	376	106	317	268	256	1053	470	768	2305	1028
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.46	0.46	0.46
Uniform Delay (d), s/veh	54.0	48.8	49.6	56.9	53.3	54.9	54.5	34.9	22.6	23.6	9.0	3.0
Incr Delay (d2), s/veh	5.0	1.0	2.0	4.6	1.4	9.0	10.3	1.5	0.2	0.1	0.1	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	3.6	2.4	2.8	0.8	1.3	2.6	3.8	6.1	0.5	5.5	2.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.0	49.8	51.6	61.5	54.8	63.9	64.8	36.4	22.8	23.7	9.1	3.2
LnGrp LOS	E	D	D	E	D	E	E	D	C	C	A	A
Approach Vol, veh/h		405			147			630			946	
Approach Delay, s/veh		55.4			60.9			40.9			12.4	
Approach LOS		E			E			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	54.9	39.0	8.0	18.1	13.3	80.6	13.9	12.1				
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	34.0	35.0	7.0	28.0	17.0	52.0	15.0	20.0				
Max Q Clear Time (g_c+14), s	14.0	15.4	3.6	8.6	9.4	8.7	9.6	7.8				
Green Ext Time (p_c), s	0.8	3.3	0.0	0.7	0.1	4.3	0.3	0.3				

Intersection Summary

HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	187	39	12	104	2	26	2	15	0	1	4
Future Vol, veh/h	10	187	39	12	104	2	26	2	15	0	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	213	44	14	118	2	30	2	17	0	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	257	0	0	385	383	213	413	425	118
Stage 1	-	-	-	-	-	-	235	235	-	146	146	-
Stage 2	-	-	-	-	-	-	150	148	-	267	279	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1480	-	-	1320	-	-	577	553	832	553	524	939
Stage 1	-	-	-	-	-	-	773	714	-	861	780	-
Stage 2	-	-	-	-	-	-	857	779	-	743	683	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1480	-	-	1320	-	-	565	543	832	533	515	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	581	-	533	515	-
Stage 1	-	-	-	-	-	-	768	709	-	855	771	-
Stage 2	-	-	-	-	-	-	843	770	-	720	678	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			10.5			9.5		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	621	792	1480	-	-	1320	-	-	806
HCM Lane V/C Ratio	0.048	0.024	0.008	-	-	0.01	-	-	0.007
HCM Control Delay (s)	11.1	9.7	7.5	-	-	7.8	-	-	9.5
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	2	60	88	66	61	0	26	0	30	2	0	0
Future Vol, veh/h	2	60	88	66	61	0	26	0	30	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	92	92	90	90	92	92	92	90	92	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	67	96	72	68	0	28	0	33	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	163	0	0	297	331	115	348	379	34
Stage 1	-	-	-	-	-	-	119	119	-	212	212	-
Stage 2	-	-	-	-	-	-	178	212	-	136	167	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1562	-	-	1428	-	-	663	602	943	612	566	1063
Stage 1	-	-	-	-	-	-	890	801	-	791	740	-
Stage 2	-	-	-	-	-	-	828	740	-	872	764	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1562	-	-	1428	-	-	637	571	943	567	537	1063
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	597	-	615	563	-
Stage 1	-	-	-	-	-	-	889	800	-	791	703	-
Stage 2	-	-	-	-	-	-	786	703	-	841	763	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	3.9	9.9	10.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	790	1562	-	-	1428	-	-	615
HCM Lane V/C Ratio	0.077	0.001	-	-	0.05	-	-	0.004
HCM Control Delay (s)	9.9	7.3	-	-	7.7	-	-	10.9
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	2	4	2	11	1	0	5	3	0	0
Future Vol, veh/h	1	1	2	4	2	11	1	0	5	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	75	75	75	75	92	75	92	75	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	3	5	3	12	1	0	7	3	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	15	0	0	4	0	0	24	30	3	27	25	9
Stage 1	-	-	-	-	-	-	5	5	-	19	19	-
Stage 2	-	-	-	-	-	-	19	25	-	8	6	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1616	-	-	1631	-	-	993	867	1087	988	872	1079
Stage 1	-	-	-	-	-	-	1022	896	-	1005	884	-
Stage 2	-	-	-	-	-	-	1005	878	-	1019	895	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1616	-	-	1631	-	-	990	864	1087	979	869	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-	990	864	-	979	869	-
Stage 1	-	-	-	-	-	-	1021	895	-	1004	881	-
Stage 2	-	-	-	-	-	-	1002	875	-	1012	894	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	1.5		1.9		8.4		8.7	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1070	1616	-	-	1631	-	-	979
HCM Lane V/C Ratio	0.007	0.001	-	-	0.003	-	-	0.003
HCM Control Delay (s)	8.4	7.2	0	-	7.2	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

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	9	0	0	16	15	1	0	15	5	0	0
Future Vol, veh/h	0	9	0	0	16	15	1	0	15	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	15	0	0	27	16	2	0	25	5	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	15	0	0	50	58	15	63	50	35
Stage 1	-	-	-	-	-	-	15	15	-	35	35	-
Stage 2	-	-	-	-	-	-	35	43	-	28	15	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1579	-	-	1616	-	-	955	837	1070	936	845	1044
Stage 1	-	-	-	-	-	-	1010	887	-	986	870	-
Stage 2	-	-	-	-	-	-	986	863	-	994	887	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1579	-	-	1616	-	-	955	837	1070	914	845	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	955	837	-	914	845	-
Stage 1	-	-	-	-	-	-	1010	887	-	986	870	-
Stage 2	-	-	-	-	-	-	986	863	-	971	887	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.5			9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1062	1579	-	-	1616	-	-	914
HCM Lane V/C Ratio	0.025	-	-	-	-	-	-	0.006
HCM Control Delay (s)	8.5	0	-	-	0	-	-	9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔			↔			↔	
Traffic Vol, veh/h	0	29	0	1	31	22	0	0	5	6	0	0
Future Vol, veh/h	0	29	0	1	31	22	0	0	5	6	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	48	0	2	52	24	0	0	8	7	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	76	0	0	48	0	0	116	128	24	92	116	64
Stage 1	-	-	-	-	-	-	48	48	-	68	68	-
Stage 2	-	-	-	-	-	-	68	80	-	24	48	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1536	-	-	1572	-	-	860	766	1053	892	778	1006
Stage 1	-	-	-	-	-	-	965	859	-	947	842	-
Stage 2	-	-	-	-	-	-	947	832	-	996	859	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1536	-	-	1572	-	-	859	765	1053	884	777	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	859	765	-	884	777	-
Stage 1	-	-	-	-	-	-	965	859	-	947	841	-
Stage 2	-	-	-	-	-	-	946	831	-	988	859	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			8.4			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1053	1536	-	-	1572	-	-	884
HCM Lane V/C Ratio	0.008	-	-	-	0.001	-	-	0.007
HCM Control Delay (s)	8.4	0	-	-	7.3	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↑↑		↗
Traffic Vol, veh/h	110	0	0	157	0	5
Future Vol, veh/h	110	0	0	157	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	120	0	0	171	0	5

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	120
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	937
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	937
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

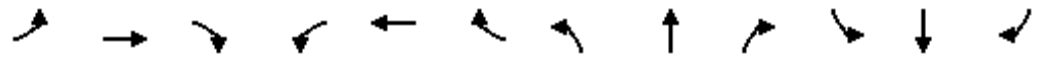
Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	937	-	-	-
HCM Lane V/C Ratio	0.006	-	-	-
HCM Control Delay (s)	8.9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM 6th Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↑	↗	↖	↗	↖
Traffic Volume (veh/h)	2	1	3	64	0	31	5	402	185	356	341	2
Future Volume (veh/h)	2	1	3	64	0	31	5	402	185	356	341	2
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		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	2	1	4	75	0	36	6	473	218	419	401	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	7	20	94	0	45	587	1001	977	448	850	4
Arrive On Green	0.01	0.01	0.01	0.08	0.00	0.08	0.65	1.00	1.00	0.25	0.45	0.45
Sat Flow, veh/h	1226	613	1610	1175	0	564	1810	1900	1610	1810	1889	9
Grp Volume(v), veh/h	3	0	4	111	0	0	6	473	218	419	0	403
Grp Sat Flow(s),veh/h/ln	1839	0	1610	1740	0	0	1810	1900	1610	1810	0	1898
Q Serve(g_s), s	0.2	0.0	0.3	7.5	0.0	0.0	0.1	0.0	0.0	27.2	0.0	17.8
Cycle Q Clear(g_c), s	0.2	0.0	0.3	7.5	0.0	0.0	0.1	0.0	0.0	27.2	0.0	17.8
Prop In Lane	0.67		1.00	0.68		0.32	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	22	0	20	139	0	0	587	1001	977	448	0	854
V/C Ratio(X)	0.13	0.00	0.20	0.80	0.00	0.00	0.01	0.47	0.22	0.93	0.00	0.47
Avail Cap(c_a), veh/h	283	0	248	268	0	0	587	1001	977	498	0	854
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	0.00	1.00	1.00	0.00	0.00	0.90	0.90	0.90	0.78	0.00	0.78
Uniform Delay (d), s/veh	58.6	0.0	58.7	54.3	0.0	0.0	14.2	0.0	0.0	44.2	0.0	23.0
Incr Delay (d2), s/veh	2.7	0.0	5.0	10.0	0.0	0.0	0.0	1.4	0.5	20.0	0.0	1.5
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	0.1	0.0	0.1	3.7	0.0	0.0	0.1	0.4	0.1	14.6	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	0.0	63.7	64.2	0.0	0.0	14.2	1.4	0.5	64.2	0.0	24.5
LnGrp LOS	E	A	E	E	A	A	B	A	A	E	A	C
Approach Vol, veh/h		7			111			697				822
Approach Delay, s/veh		62.7			64.2			1.2				44.7
Approach LOS		E			E			A				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	33.7	67.2		5.5	43.0	58.0		13.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	33.0	34.0		18.5	13.0	54.0		18.5				
Max Q Clear Time (g_c+I1), s	29.2	2.0		2.3	2.1	19.8		9.5				
Green Ext Time (p_c), s	0.5	4.1		0.0	0.0	2.7		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				27.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
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Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑			↑	↕
Traffic Volume (veh/h)	131	0	179	0	0	0	77	460	0	0	373	34
Future Volume (veh/h)	131	0	179	0	0	0	77	460	0	0	373	34
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	164	0	224				96	575	0	0	466	42
Peak Hour Factor	0.80	0.92	0.80				0.80	0.80	0.92	0.92	0.80	0.80
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	181	0	247				386	1292	0	0	823	1106
Arrive On Green	0.25	0.00	0.25				0.43	1.00	0.00	0.00	0.43	0.43
Sat Flow, veh/h	714	0	975				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	388	0	0				96	575	0	0	466	42
Grp Sat Flow(s),veh/h/ln	1689	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	26.7	0.0	0.0				4.1	0.0	0.0	0.0	22.1	1.0
Cycle Q Clear(g_c), s	26.7	0.0	0.0				4.1	0.0	0.0	0.0	22.1	1.0
Prop In Lane	0.42		0.58				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	428	0	0				386	1292	0	0	823	1106
V/C Ratio(X)	0.91	0.00	0.00				0.25	0.45	0.00	0.00	0.57	0.04
Avail Cap(c_a), veh/h	535	0	0				386	1292	0	0	823	1106
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.93	0.93	0.00	0.00	0.98	0.98
Uniform Delay (d), s/veh	43.4	0.0	0.0				28.3	0.0	0.0	0.0	25.5	6.0
Incr Delay (d2), s/veh	16.6	0.0	0.0				0.3	1.0	0.0	0.0	2.8	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
%ile BackOfQ(50%),veh/ln	18.1	0.0	0.0				1.7	0.4	0.0	0.0	10.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	0.0	0.0				28.6	1.0	0.0	0.0	28.3	6.1
LnGrp LOS	E	A	A				C	A	A	A	C	A
Approach Vol, veh/h		388						671			508	
Approach Delay, s/veh		60.0						5.0			26.4	
Approach LOS		E						A			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		85.6		34.4	29.6	56.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		74.0		38.0	18.0	52.0						
Max Q Clear Time (g_c+I1), s		2.0		28.7	6.1	24.1						
Green Ext Time (p_c), s		4.5		1.7	0.2	3.3						
Intersection Summary												
HCM 6th Ctrl Delay			25.6									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 Int.12: Redlands Blvd & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↖	↕	↖			↕	↗
Traffic Volume (veh/h)	77	1	38	3	2	16	22	443	1	0	419	133
Future Volume (veh/h)	77	1	38	3	2	16	22	443	1	0	419	133
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		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		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	1	48	4	3	20	28	561	1	0	530	168
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	1	575	9	6	43	514	1503	3	0	902	882
Arrive On Green	0.07	0.07	0.07	0.03	0.03	0.03	0.28	0.79	0.79	0.00	0.95	0.95
Sat Flow, veh/h	1792	18	1610	247	185	1234	1810	1896	3	0	1900	1610
Grp Volume(v), veh/h	98	0	48	27	0	0	28	0	562	0	530	168
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1666	0	0	1810	0	1899	0	1900	1610
Q Serve(g_s), s	6.4	0.0	0.0	1.9	0.0	0.0	1.4	0.0	10.5	0.0	3.8	0.7
Cycle Q Clear(g_c), s	6.4	0.0	0.0	1.9	0.0	0.0	1.4	0.0	10.5	0.0	3.8	0.7
Prop In Lane	0.99		1.00	0.15		0.74	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	132	0	575	58	0	0	514	0	1505	0	903	882
V/C Ratio(X)	0.74	0.00	0.08	0.47	0.00	0.00	0.05	0.00	0.37	0.00	0.59	0.19
Avail Cap(c_a), veh/h	302	0	726	264	0	0	514	0	1505	0	903	882
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	1.00	0.00	1.00	0.00	0.87	0.87
Uniform Delay (d), s/veh	54.5	0.0	25.6	56.8	0.0	0.0	31.2	0.0	3.7	0.0	1.7	1.2
Incr Delay (d2), s/veh	8.0	0.0	0.1	5.8	0.0	0.0	0.0	0.0	0.7	0.0	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	3.2	0.0	0.9	0.9	0.0	0.0	0.6	0.0	3.5	0.0	1.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	0.0	25.6	62.6	0.0	0.0	31.3	0.0	4.4	0.0	4.1	1.6
LnGrp LOS	E	A	C	E	A	A	C	A	A	A	A	A
Approach Vol, veh/h		146			27			590			698	
Approach Delay, s/veh		50.4			62.6			5.7			3.5	
Approach LOS		D			E			A			A	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		99.1		12.7	38.1	61.0		8.2				
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s		69.0		20.0	8.0	57.0		19.0				
Max Q Clear Time (g_c+I1), s		12.5		8.4	3.4	5.8		3.9				
Green Ext Time (p_c), s		4.3		0.4	0.0	4.6		0.1				
Intersection Summary												
HCM 6th Ctrl Delay											10.1	
HCM 6th LOS											B	

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	4	0	467	446	14
Future Vol, veh/h	0	4	0	467	446	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	0	508	485	15

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	493	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.2	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	580	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	580	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 580	-	-
HCM Lane V/C Ratio	- 0.007	-	-
HCM Control Delay (s)	- 11.3	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	4	0	467	387	62
Future Vol, veh/h	0	4	0	467	387	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	0	508	421	67

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	455	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.2	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	609	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	609	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 609	-	-
HCM Lane V/C Ratio	- 0.007	-	-
HCM Control Delay (s)	- 11	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0	-	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	5	26	435	353	27
Future Vol, veh/h	34	5	26	435	353	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	6	33	551	447	34













Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1081	464	481	0	-	0
Stage 1	464	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	219	720	1096	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	210	720	1096	-	-	-
Mov Cap-2 Maneuver	210	-	-	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.4	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1096	-	210	720	-	-
HCM Lane V/C Ratio	0.03	-	0.205	0.009	-	-
HCM Control Delay (s)	8.4	0	26.5	10	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	0	-	-

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	92	8	250	542	36	238
Future Volume (veh/h)	92	8	250	542	36	238
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	9	269	583	39	256
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	128	832	728	732	806	1638
Arrive On Green	0.07	0.07	0.77	0.77	0.45	0.86
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	99	9	269	583	39	256
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	6.5	0.0	5.5	32.5	1.5	2.6
Cycle Q Clear(g_c), s	6.5	0.0	5.5	32.5	1.5	2.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	128	832	728	732	806	1638
V/C Ratio(X)	0.77	0.01	0.37	0.80	0.05	0.16
Avail Cap(c_a), veh/h	814	1442	728	732	806	1638
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.67	0.67	1.00	1.00
Uniform Delay (d), s/veh	54.8	14.1	9.3	10.1	18.8	1.3
Incr Delay (d2), s/veh	9.3	0.0	1.0	6.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.1	2.1	5.7	0.6	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.1	14.1	10.2	16.2	18.9	1.5
LnGrp LOS	E	B	B	B	B	A
Approach Vol, veh/h	108		852			295
Approach Delay, s/veh	59.9		14.3			3.8
Approach LOS	E		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	57.5	50.0			107.5	12.5
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	8.0	46.0			58.0	54.0
Max Q Clear Time (g_c+I1), s	3.5	34.5			4.6	8.5
Green Ext Time (p_c), s	0.0	3.2			1.7	0.3
Intersection Summary						
HCM 6th Ctrl Delay			15.8			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	65	2	564	0	0	0	0	727	168	8	322	0
Future Volume (veh/h)	65	2	564	0	0	0	0	727	168	8	322	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	66	2	576				0	742	171	8	329	0
Peak Hour Factor	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
Cap, veh/h	337	10	309				0	934	792	10	401	0
Arrive On Green	0.19	0.19	0.19				0.00	0.16	0.16	0.07	0.07	0.00
Sat Flow, veh/h	1759	53	1610				0	1900	1610	45	1853	0
Grp Volume(v), veh/h	68	0	576				0	742	171	337	0	0
Grp Sat Flow(s),veh/h/ln	1812	0	1610				0	1900	1610	1898	0	0
Q Serve(g_s), s	3.8	0.0	23.0				0.0	45.1	11.1	21.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	23.0				0.0	45.1	11.1	21.0	0.0	0.0
Prop In Lane	0.97		1.00				0.00		1.00	0.02		0.00
Lane Grp Cap(c), veh/h	347	0	309				0	934	792	411	0	0
V/C Ratio(X)	0.20	0.00	1.87				0.00	0.79	0.22	0.82	0.00	0.00
Avail Cap(c_a), veh/h	347	0	309				0	934	792	411	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.83	0.83	0.97	0.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	48.5				0.0	44.4	30.2	53.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	402.1				0.0	5.8	0.5	16.1	0.0	0.0
Initial Q Delay(d3),s/veh	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	0.0	43.6				0.0	24.5	4.9	12.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	0.0	450.6				0.0	50.2	30.7	69.5	0.0	0.0
LnGrp LOS	D	A	F				A	D	C	E	A	A
Approach Vol, veh/h		644						913			337	
Approach Delay, s/veh		407.3						46.6			69.5	
Approach LOS		F						D			E	
Timer - Assigned Phs		2		4			6					
Phs Duration (G+Y+Rc), s		63.0		27.0			30.0					
Change Period (Y+Rc), s		4.0		4.0			4.0					
Max Green Setting (Gmax), s		59.0		23.0			26.0					
Max Q Clear Time (g_c+I1), s		47.1		25.0			23.0					
Green Ext Time (p_c), s		4.6		0.0			0.6					
Intersection Summary												
HCM 6th Ctrl Delay			173.3									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	338	41	135	36	63	228	114	329	6	96	549	241
Future Volume (veh/h)	338	41	135	36	63	228	114	329	6	96	549	241
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		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	360	44	144	38	67	243	121	350	6	102	584	256
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	434	478	405	76	323	274	149	782	349	645	1772	790
Arrive On Green	0.12	0.25	0.25	0.04	0.17	0.17	0.08	0.22	0.22	0.36	0.49	0.49
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	360	44	144	38	67	243	121	350	6	102	584	256
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	12.0	2.1	8.8	2.5	3.6	17.7	7.9	10.1	0.3	4.6	11.8	7.2
Cycle Q Clear(g_c), s	12.0	2.1	8.8	2.5	3.6	17.7	7.9	10.1	0.3	4.6	11.8	7.2
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	434	478	405	76	323	274	149	782	349	645	1772	790
V/C Ratio(X)	0.83	0.09	0.36	0.50	0.21	0.89	0.81	0.45	0.02	0.16	0.33	0.32
Avail Cap(c_a), veh/h	644	618	523	151	428	362	256	782	349	645	1772	790
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)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.45	0.45	0.45
Uniform Delay (d), s/veh	51.3	34.4	36.9	56.3	42.8	48.7	54.2	40.8	27.4	26.3	18.6	7.3
Incr Delay (d2), s/veh	5.7	0.1	0.5	5.0	0.3	18.4	10.2	1.9	0.1	0.1	0.2	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	5.6	1.0	3.5	1.2	1.7	8.5	4.0	4.7	0.1	2.0	5.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	34.5	37.4	61.3	43.2	67.1	64.3	42.6	27.5	26.4	18.8	7.7
LnGrp LOS	E	C	D	E	D	E	E	D	C	C	B	A
Approach Vol, veh/h		548			348			477			942	
Approach Delay, s/veh		50.1			61.9			47.9			16.6	
Approach LOS		D			E			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.8	30.0	9.0	34.2	13.9	62.9	18.8	24.4				
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	29.0	26.0	10.0	39.0	17.0	38.0	22.0	27.0				
Max Q Clear Time (g_c+1), s	10.6	12.1	4.5	10.8	9.9	13.8	14.0	19.7				
Green Ext Time (p_c), s	0.2	1.9	0.0	0.7	0.1	5.1	0.8	0.7				

Intersection Summary

HCM 6th Ctrl Delay	37.8
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↗			↕	
Traffic Vol, veh/h	12	110	27	17	207	1	57	5	8	0	5	16
Future Vol, veh/h	12	110	27	17	207	1	57	5	8	0	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	134	33	21	252	1	70	6	10	0	6	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	253	0	0	167	0	0	472	459	134	483	491	252
Stage 1	-	-	-	-	-	-	164	164	-	294	294	-
Stage 2	-	-	-	-	-	-	308	295	-	189	197	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1324	-	-	1423	-	-	506	502	920	497	481	792
Stage 1	-	-	-	-	-	-	843	766	-	719	673	-
Stage 2	-	-	-	-	-	-	706	673	-	817	742	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1324	-	-	1423	-	-	479	489	920	478	468	792
Mov Cap-2 Maneuver	-	-	-	-	-	-	545	538	-	478	468	-
Stage 1	-	-	-	-	-	-	834	758	-	711	663	-
Stage 2	-	-	-	-	-	-	672	663	-	793	734	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.6			12.1			10.5		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	545	723	1324	-	-	1423	-	-	680
HCM Lane V/C Ratio	0.128	0.022	0.011	-	-	0.015	-	-	0.038
HCM Control Delay (s)	12.6	10.1	7.7	-	-	7.6	-	-	10.5
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.1	0	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	0	50	36	27	83	0	91	0	104	0	0	0
Future Vol, veh/h	0	50	36	27	83	0	91	0	104	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	58	39	29	97	0	99	0	113	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	97	0	0	97	0	0	185	233	78	289	252	49
Stage 1	-	-	-	-	-	-	78	78	-	155	155	-
Stage 2	-	-	-	-	-	-	107	155	-	134	97	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1524	-	-	1509	-	-	790	682	988	671	666	1040
Stage 1	-	-	-	-	-	-	936	834	-	854	783	-
Stage 2	-	-	-	-	-	-	911	783	-	874	819	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1524	-	-	1509	-	-	779	669	988	586	654	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	771	667	-	586	654	-
Stage 1	-	-	-	-	-	-	936	834	-	854	768	-
Stage 2	-	-	-	-	-	-	893	768	-	774	819	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.7			10.4			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	873	1524	-	-	1509	-	-	-
HCM Lane V/C Ratio	0.243	-	-	-	0.019	-	-	-
HCM Control Delay (s)	10.4	0	-	-	7.4	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1	0	-	-	0.1	-	-	-

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	11	1	4	0	0	3	11	0	1
Future Vol, veh/h	0	0	0	11	1	4	0	0	3	11	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	58	58	58	58	92	58	92	58	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	19	2	4	0	0	5	12	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	2	0	0	45	46	2	47	44	4
Stage 1	-	-	-	-	-	-	2	2	-	42	42	-
Stage 2	-	-	-	-	-	-	43	44	-	5	2	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1628	-	-	1634	-	-	962	850	1088	959	852	1085
Stage 1	-	-	-	-	-	-	1026	898	-	978	864	-
Stage 2	-	-	-	-	-	-	976	862	-	1022	898	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1628	-	-	1634	-	-	952	840	1088	946	842	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	952	840	-	946	842	-
Stage 1	-	-	-	-	-	-	1026	898	-	978	854	-
Stage 2	-	-	-	-	-	-	963	852	-	1017	898	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			5.5			8.3			8.8		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1088	1628	-	-	1634	-	-	956
HCM Lane V/C Ratio	0.005	-	-	-	0.012	-	-	0.014
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	8.8
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

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	14	0	6	16	6	0	0	3	17	0	0
Future Vol, veh/h	0	14	0	6	16	6	0	0	3	17	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	0	10	27	7	0	0	5	18	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	23	0	0	74	77	23	77	74	31
Stage 1	-	-	-	-	-	-	23	23	-	51	51	-
Stage 2	-	-	-	-	-	-	51	54	-	26	23	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1591	-	-	1605	-	-	921	817	1060	917	820	1049
Stage 1	-	-	-	-	-	-	1000	880	-	967	856	-
Stage 2	-	-	-	-	-	-	967	854	-	997	880	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1591	-	-	1605	-	-	916	812	1060	909	815	1049
Mov Cap-2 Maneuver	-	-	-	-	-	-	916	812	-	909	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	967	851	-
Stage 2	-	-	-	-	-	-	961	849	-	992	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.7	8.4	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1060	1591	-	-	1605	-	-	909
HCM Lane V/C Ratio	0.005	-	-	-	0.006	-	-	0.02
HCM Control Delay (s)	8.4	0	-	-	7.3	0	-	9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

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	35	0	3	28	9	0	0	2	23	0	0
Future Vol, veh/h	0	35	0	3	28	9	0	0	2	23	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	64	64	64	64	92	64	92	64	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	55	0	5	44	10	0	0	3	25	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	55	0	0	114	119	28	87	114	49
Stage 1	-	-	-	-	-	-	55	55	-	59	59	-
Stage 2	-	-	-	-	-	-	59	64	-	28	55	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1564	-	-	1563	-	-	862	775	1047	899	780	1025
Stage 1	-	-	-	-	-	-	956	853	-	958	850	-
Stage 2	-	-	-	-	-	-	958	846	-	991	853	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1564	-	-	1563	-	-	860	773	1047	895	778	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	860	773	-	895	778	-
Stage 1	-	-	-	-	-	-	956	853	-	958	847	-
Stage 2	-	-	-	-	-	-	955	843	-	988	853	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			8.4			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1047	1564	-	-	1563	-	-	895
HCM Lane V/C Ratio	0.003	-	-	-	0.003	-	-	0.028
HCM Control Delay (s)	8.4	0	-	-	7.3	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↑↑		↗
Traffic Vol, veh/h	170	0	0	108	0	18
Future Vol, veh/h	170	0	0	108	0	18
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	185	0	0	117	0	20

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	185
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	862
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	862
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	862	-	-	-
HCM Lane V/C Ratio	0.023	-	-	-
HCM Control Delay (s)	9.3	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	0	6	1	33	0	20	3	691	199	379	432	0
Future Volume (veh/h)	0	6	1	33	0	20	3	691	199	379	432	0
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		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	0	6	1	34	0	20	3	705	203	387	441	0
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	0	23	20	53	0	31	10	681	655	810	1521	0
Arrive On Green	0.00	0.01	0.01	0.05	0.00	0.05	0.00	0.24	0.24	0.90	1.00	0.00
Sat Flow, veh/h	0	1900	1610	1089	0	641	1810	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	6	1	54	0	0	3	705	203	387	441	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1730	0	0	1810	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.4	0.1	3.7	0.0	0.0	0.2	43.0	11.6	4.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.4	0.1	3.7	0.0	0.0	0.2	43.0	11.6	4.7	0.0	0.0
Prop In Lane	0.00		1.00	0.63		0.37	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	23	20	84	0	0	10	681	655	810	1521	0
V/C Ratio(X)	0.00	0.26	0.05	0.64	0.00	0.00	0.30	1.04	0.31	0.48	0.29	0.00
Avail Cap(c_a), veh/h	0	293	248	267	0	0	106	681	655	810	1521	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	0.00	0.87	0.87	0.87	0.77	0.77	0.00
Uniform Delay (d), s/veh	0.0	58.7	58.6	56.0	0.0	0.0	59.5	45.6	29.1	3.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	5.8	1.1	7.9	0.0	0.0	13.7	41.7	1.1	0.3	0.4	0.0
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	0.0	0.2	0.0	1.8	0.0	0.0	0.1	28.8	5.4	1.3	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	64.6	59.7	63.9	0.0	0.0	73.3	87.3	30.1	4.1	0.4	0.0
LnGrp LOS	A	E	E	E	A	A	E	F	C	A	A	A
Approach Vol, veh/h		7			54			911			828	
Approach Delay, s/veh		63.9			63.9			74.5			2.1	
Approach LOS		E			E			E			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	57.7	47.0		5.5	4.7	100.0		9.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	24.0	43.0		18.5	7.0	60.0		18.5				
Max Q Clear Time (g_c+I1), s	6.7	45.0		2.4	2.2	2.0		5.7				
Green Ext Time (p_c), s	1.1	0.0		0.0	0.0	3.1		0.1				

Intersection Summary

HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↕			↕	↕
Traffic Volume (veh/h)	403	0	177	0	0	0	97	490	0	0	430	37
Future Volume (veh/h)	403	0	177	0	0	0	97	490	0	0	430	37
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	420	0	184				101	510	0	0	448	39
Peak Hour Factor	0.96	0.92	0.96				0.96	0.96	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	453	0	199				273	1063	0	0	712	1206
Arrive On Green	0.37	0.00	0.37				0.30	1.00	0.00	0.00	0.75	0.75
Sat Flow, veh/h	1213	0	531				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	604	0	0				101	510	0	0	448	39
Grp Sat Flow(s),veh/h/ln	1744	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	39.8	0.0	0.0				5.3	0.0	0.0	0.0	13.4	0.3
Cycle Q Clear(g_c), s	39.8	0.0	0.0				5.3	0.0	0.0	0.0	13.4	0.3
Prop In Lane	0.70		0.30				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	652	0	0				273	1063	0	0	713	1206
V/C Ratio(X)	0.93	0.00	0.00				0.37	0.48	0.00	0.00	0.63	0.03
Avail Cap(c_a), veh/h	756	0	0				273	1063	0	0	713	1206
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00				0.96	0.96	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh	36.0	0.0	0.0				37.4	0.0	0.0	0.0	11.0	1.5
Incr Delay (d2), s/veh	16.0	0.0	0.0				0.8	1.5	0.0	0.0	4.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.5	0.0	0.0				2.3	0.4	0.0	0.0	4.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	0.0	0.0				38.2	1.5	0.0	0.0	15.1	1.6
LnGrp LOS	D	A	A				D	A	A	A	B	A
Approach Vol, veh/h		604						611			487	
Approach Delay, s/veh		52.0						7.6			14.0	
Approach LOS		D						A			B	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		71.1		48.9	22.1	49.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		60.0		52.0	11.0	45.0						
Max Q Clear Time (g_c+I1), s		2.0		41.8	7.3	15.4						
Green Ext Time (p_c), s		3.8		3.1	0.1	3.2						
Intersection Summary												
HCM 6th Ctrl Delay											25.2	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 Int.12: Redlands Blvd & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕			↕	↗
Traffic Volume (veh/h)	151	2	34	1	1	24	40	410	3	0	538	67
Future Volume (veh/h)	151	2	34	1	1	24	40	410	3	0	538	67
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		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	159	2	36	1	1	25	42	432	3	0	566	71
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	192	2	244	2	2	52	80	1428	10	0	1293	1269
Arrive On Green	0.11	0.11	0.11	0.03	0.03	0.03	0.04	0.76	0.76	0.00	1.00	1.00
Sat Flow, veh/h	1788	22	1610	60	60	1506	1810	1885	13	0	1900	1610
Grp Volume(v), veh/h	161	0	36	27	0	0	42	0	435	0	566	71
Grp Sat Flow(s),veh/h/ln	1811	0	1610	1626	0	0	1810	0	1898	0	1900	1610
Q Serve(g_s), s	10.5	0.0	2.3	2.0	0.0	0.0	2.7	0.0	8.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.5	0.0	2.3	2.0	0.0	0.0	2.7	0.0	8.6	0.0	0.0	0.0
Prop In Lane	0.99		1.00	0.04		0.93	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h	194	0	244	56	0	0	80	0	1438	0	1293	1269
V/C Ratio(X)	0.83	0.00	0.15	0.48	0.00	0.00	0.53	0.00	0.30	0.00	0.44	0.06
Avail Cap(c_a), veh/h	279	0	319	244	0	0	226	0	1438	0	1293	1269
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	1.00	0.00	1.00	0.00	0.82	0.82
Uniform Delay (d), s/veh	52.5	0.0	44.2	56.9	0.0	0.0	56.1	0.0	4.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	12.8	0.0	0.3	6.2	0.0	0.0	5.3	0.0	0.5	0.0	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	5.4	0.0	1.0	0.9	0.0	0.0	1.4	0.0	3.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	0.0	44.5	63.1	0.0	0.0	61.5	0.0	5.1	0.0	0.9	0.1
LnGrp LOS	E	A	D	E	A	A	E	A	A	A	A	A
Approach Vol, veh/h		197			27			477			637	
Approach Delay, s/veh		61.5			63.1			10.1			0.8	
Approach LOS		E			E			B			A	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		95.0		16.9	9.3	85.7		8.2				
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s		71.5		18.5	15.0	52.5		18.0				
Max Q Clear Time (g_c+I1), s		10.6		12.5	4.7	2.0		4.0				
Green Ext Time (p_c), s		3.1		0.5	0.0	4.6		0.1				

Intersection Summary

HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	13	0	454	568	6
Future Vol, veh/h	0	13	0	454	568	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	14	0	493	617	7

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	621	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.2	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	491	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	491	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 491	-	-
HCM Lane V/C Ratio	- 0.029	-	-
HCM Control Delay (s)	- 12.5	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	13	0	454	556	25
Future Vol, veh/h	0	13	0	454	556	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	14	0	493	604	27

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	618	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.2	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	493	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	493	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 493	-	-
HCM Lane V/C Ratio	- 0.029	-	-
HCM Control Delay (s)	- 12.5	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	9	10	405	527	26
Future Vol, veh/h	50	9	10	405	527	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
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	52	9	10	422	549	27

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1005	563	576	0	-	0
Stage 1	563	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*254	*637	*955	-	-	-
Stage 1	*600	-	-	-	-	-
Stage 2	*652	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*251	*637	*955	-	-	-
Mov Cap-2 Maneuver	*251	-	-	-	-	-
Stage 1	*592	-	-	-	-	-
Stage 2	*652	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.2	0.2	0
HCM LOS	C		













Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	*955	-	251	637	-	-
HCM Lane V/C Ratio	0.011	-	0.208	0.015	-	-
HCM Control Delay (s)	8.8	0	23.1	10.7	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.8	0	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center

03/30/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	211	7	463	494	116	308
Future Volume (veh/h)	211	7	463	494	116	308
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	243	8	532	568	133	354
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	278	765	808	932	581	1481
Arrive On Green	0.15	0.15	0.71	0.71	0.32	0.78
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	243	8	532	568	133	354
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	15.8	0.0	18.3	21.9	6.5	6.1
Cycle Q Clear(g_c), s	15.8	0.0	18.3	21.9	6.5	6.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	278	765	808	932	581	1481
V/C Ratio(X)	0.87	0.01	0.66	0.61	0.23	0.24
Avail Cap(c_a), veh/h	603	1054	808	932	581	1481
HCM Platoon Ratio	1.00	1.00	1.67	1.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	49.6	16.6	12.7	7.7	29.8	3.6
Incr Delay (d2), s/veh	8.4	0.0	0.4	0.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.1	5.2	6.8	2.9	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.0	16.6	13.1	8.0	30.0	4.0
LnGrp LOS	E	B	B	A	C	A
Approach Vol, veh/h	251		1100			487
Approach Delay, s/veh	56.7		10.4			11.1
Approach LOS	E		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	42.5	55.0			97.5	22.5
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	17.0	51.0			72.0	40.0
Max Q Clear Time (g_c+I1), s	8.5	23.9			8.1	17.8
Green Ext Time (p_c), s	0.2	6.4			2.4	0.7
Intersection Summary						
HCM 6th Ctrl Delay			16.9			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	246	11	541	0	0	0	0	709	256	78	460	0
Future Volume (veh/h)	246	11	541	0	0	0	0	709	256	78	460	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	296	13	652				0	854	308	94	554	0
Peak Hour Factor	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
Cap, veh/h	275	12	255				0	792	671	89	524	0
Arrive On Green	0.16	0.16	0.16				0.00	0.83	0.83	0.65	0.65	0.00
Sat Flow, veh/h	1737	76	1610				0	1900	1610	274	1613	0
Grp Volume(v), veh/h	309	0	652				0	854	308	648	0	0
Grp Sat Flow(s),veh/h/ln	1813	0	1610				0	1900	1610	1886	0	0
Q Serve(g_s), s	19.0	0.0	19.0				0.0	50.0	6.2	39.0	0.0	0.0
Cycle Q Clear(g_c), s	19.0	0.0	19.0				0.0	50.0	6.2	39.0	0.0	0.0
Prop In Lane	0.96		1.00				0.00		1.00	0.15		0.00
Lane Grp Cap(c), veh/h	287	0	255				0	792	671	613	0	0
V/C Ratio(X)	1.08	0.00	2.56				0.00	1.08	0.46	1.06	0.00	0.00
Avail Cap(c_a), veh/h	287	0	255				0	792	671	613	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.87	0.87	0.90	0.00	0.00
Uniform Delay (d), s/veh	50.5	0.0	50.5				0.0	10.0	6.3	21.0	0.0	0.0
Incr Delay (d2), s/veh	74.9	0.0	712.3				0.0	53.4	2.0	50.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	58.1				0.0	16.0	1.9	18.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	125.4	0.0	762.8				0.0	63.4	8.3	71.5	0.0	0.0
LnGrp LOS	F	A	F				A	F	A	F	A	A
Approach Vol, veh/h		961						1162			648	
Approach Delay, s/veh		557.8						48.8			71.5	
Approach LOS		F						D			E	
Timer - Assigned Phs		2	4			6						
Phs Duration (G+Y+Rc), s		54.0	23.0			43.0						
Change Period (Y+Rc), s		4.0	4.0			4.0						
Max Green Setting (Gmax), s		50.0	19.0			39.0						
Max Q Clear Time (g_c+I1), s		52.0	21.0			41.0						
Green Ext Time (p_c), s		0.0	0.0			0.0						
Intersection Summary												
HCM 6th Ctrl Delay			230.6									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↔	↔	↑	↔	↔	↑↑	↔	↔	↑↑	↔
Traffic Volume (veh/h)	218	85	115	37	40	59	155	692	64	183	643	176
Future Volume (veh/h)	218	85	115	37	40	59	155	692	64	183	643	176
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		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	263	102	139	45	48	71	187	834	77	220	775	212
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	325	208	176	82	118	100	542	2071	924	250	1489	664
Arrive On Green	0.09	0.11	0.11	0.05	0.06	0.06	0.30	0.57	0.57	0.14	0.41	0.41
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	263	102	139	45	48	71	187	834	77	220	775	212
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	8.8	6.1	5.9	2.9	2.9	5.2	9.7	15.4	2.6	14.3	19.3	7.8
Cycle Q Clear(g_c), s	8.8	6.1	5.9	2.9	2.9	5.2	9.7	15.4	2.6	14.3	19.3	7.8
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	325	208	176	82	118	100	542	2071	924	250	1489	664
V/C Ratio(X)	0.81	0.49	0.79	0.55	0.41	0.71	0.35	0.40	0.08	0.88	0.52	0.32
Avail Cap(c_a), veh/h	410	388	329	121	293	248	542	2071	924	332	1489	664
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)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.24	0.24	0.24
Uniform Delay (d), s/veh	53.4	50.3	18.1	56.1	54.1	55.2	32.8	14.2	11.5	50.7	26.4	12.7
Incr Delay (d2), s/veh	9.1	1.7	7.4	5.6	2.2	8.8	0.4	0.6	0.2	5.4	0.3	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	4.3	3.0	4.3	1.5	1.5	2.4	4.3	6.3	1.0	6.8	8.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	52.0	25.5	61.7	56.4	64.0	33.2	14.8	11.6	56.1	26.7	13.0
LnGrp LOS	E	D	C	E	E	E	C	B	B	E	C	B
Approach Vol, veh/h		504			164			1098			1207	
Approach Delay, s/veh		50.2			61.1			17.7			29.6	
Approach LOS		D			E			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.6	72.8	9.4	17.1	39.9	53.5	15.1	11.5				
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	22.0	49.5	8.0	24.5	22.0	49.5	14.0	18.5				
Max Q Clear Time (g_c+10), s	10.3	17.4	4.9	8.1	11.7	21.3	10.8	7.2				
Green Ext Time (p_c), s	0.3	7.1	0.0	0.9	0.4	6.9	0.3	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			30.4									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	98	60	13	90	2	35	2	15	0	1	4
Future Vol, veh/h	11	98	60	13	90	2	35	2	15	0	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	111	68	15	102	2	40	2	17	0	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	179	0	0	273	271	111	313	337	102
Stage 1	-	-	-	-	-	-	137	137	-	132	132	-
Stage 2	-	-	-	-	-	-	136	134	-	181	205	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1500	-	-	1409	-	-	684	639	948	643	587	959
Stage 1	-	-	-	-	-	-	871	787	-	876	791	-
Stage 2	-	-	-	-	-	-	872	789	-	825	736	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1500	-	-	1409	-	-	670	626	948	620	575	959
Mov Cap-2 Maneuver	-	-	-	-	-	-	695	639	-	620	575	-
Stage 1	-	-	-	-	-	-	863	780	-	868	782	-
Stage 2	-	-	-	-	-	-	857	780	-	801	729	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.9			10			9.3		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	695	897	1500	-	-	1409	-	-	846
HCM Lane V/C Ratio	0.057	0.022	0.008	-	-	0.01	-	-	0.007
HCM Control Delay (s)	10.5	9.1	7.4	-	-	7.6	-	-	9.3
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	2	54	0	0	76	0	0	0	0	2	0	0
Future Vol, veh/h	2	54	0	0	76	0	0	0	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	92	92	90	90	92	92	92	90	92	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	60	0	0	84	0	0	0	0	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	60	0	0	106	148	60	148	148	42
Stage 1	-	-	-	-	-	-	64	64	-	84	84	-
Stage 2	-	-	-	-	-	-	42	84	-	64	64	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1526	-	-	1556	-	-	873	747	1011	818	747	1026
Stage 1	-	-	-	-	-	-	952	846	-	920	829	-
Stage 2	-	-	-	-	-	-	973	829	-	952	846	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1526	-	-	1556	-	-	872	746	1011	817	746	1026
Mov Cap-2 Maneuver	-	-	-	-	-	-	836	722	-	799	722	-
Stage 1	-	-	-	-	-	-	951	845	-	919	829	-
Stage 2	-	-	-	-	-	-	973	829	-	951	845	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	0	9.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1526	-	-	1556	-	-	799
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	0.003
HCM Control Delay (s)		0	7.4	-	-	0	-	9.5
HCM Lane LOS		A	A	-	-	A	-	A
HCM 95th %tile Q(veh)		-	0	-	-	0	-	0

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	2	4	2	0	1	0	6	0	0	0
Future Vol, veh/h	0	1	2	4	2	0	1	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	75	75	75	75	92	75	92	75	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	3	5	3	0	1	0	8	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	4	0	0	16	16	3	20	17	3
Stage 1	-	-	-	-	-	-	3	3	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	7	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1632	-	-	1631	-	-	1004	882	1087	998	881	1087
Stage 1	-	-	-	-	-	-	1025	897	-	1013	889	-
Stage 2	-	-	-	-	-	-	1013	889	-	1020	897	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1632	-	-	1631	-	-	1002	879	1087	988	878	1087
Mov Cap-2 Maneuver	-	-	-	-	-	-	1002	879	-	988	878	-
Stage 1	-	-	-	-	-	-	1025	897	-	1013	886	-
Stage 2	-	-	-	-	-	-	1010	886	-	1012	897	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.8	8.4	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1074	1632	-	-	1631	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-	0.003	-	-	-
HCM Control Delay (s)	8.4	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	7	0	0	6	0	1	0	17	0	0	0
Future Vol, veh/h	0	7	0	0	6	0	1	0	17	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	12	0	0	10	0	2	0	28	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	12	0	0	22	22	12	36	22	10
Stage 1	-	-	-	-	-	-	12	12	-	10	10	-
Stage 2	-	-	-	-	-	-	10	10	-	26	12	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1623	-	-	1620	-	-	995	876	1074	975	876	1077
Stage 1	-	-	-	-	-	-	1014	890	-	1016	891	-
Stage 2	-	-	-	-	-	-	1016	891	-	997	890	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1623	-	-	1620	-	-	995	876	1074	950	876	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	995	876	-	950	876	-
Stage 1	-	-	-	-	-	-	1014	890	-	1016	891	-
Stage 2	-	-	-	-	-	-	1016	891	-	971	890	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1069	1623	-	-	1620	-	-	-
HCM Lane V/C Ratio	0.028	-	-	-	-	-	-	-
HCM Control Delay (s)	8.5	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	23	0	1	6	0	0	0	6	0	0	0
Future Vol, veh/h	0	23	0	1	6	0	0	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	38	0	2	10	0	0	0	10	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	38	0	0	52	52	19	33	52	10
Stage 1	-	-	-	-	-	-	38	38	-	14	14	-
Stage 2	-	-	-	-	-	-	14	14	-	19	38	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1623	-	-	1585	-	-	949	843	1061	978	843	1077
Stage 1	-	-	-	-	-	-	978	867	-	1011	888	-
Stage 2	-	-	-	-	-	-	1011	888	-	1003	867	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1623	-	-	1585	-	-	948	842	1061	968	842	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	948	842	-	968	842	-
Stage 1	-	-	-	-	-	-	978	867	-	1011	887	-
Stage 2	-	-	-	-	-	-	1010	887	-	994	867	-

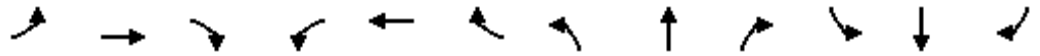
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	8.4	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1061	1623	-	-	1585	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-	0.001	-	-	-
HCM Control Delay (s)	8.4	0	-	-	7.3	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↔		↖	↑	↗	↖	↕	↗
Traffic Volume (veh/h)	9	5	9	100	10	111	15	463	215	424	398	8
Future Volume (veh/h)	9	5	9	100	10	111	15	463	215	424	398	8
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		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	11	6	11	118	12	131	18	545	253	499	468	9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	23	57	119	12	132	320	780	909	483	929	18
Arrive On Green	0.04	0.04	0.04	0.15	0.15	0.15	0.35	0.82	0.82	0.45	0.83	0.83
Sat Flow, veh/h	1191	650	1610	772	78	857	1810	1900	1610	1810	1858	36
Grp Volume(v), veh/h	17	0	11	261	0	0	18	545	253	499	0	477
Grp Sat Flow(s),veh/h/ln	1840	0	1610	1707	0	0	1810	1900	1610	1810	0	1894
Q Serve(g_s), s	1.1	0.0	0.8	18.3	0.0	0.0	0.8	14.5	3.6	32.0	0.0	8.6
Cycle Q Clear(g_c), s	1.1	0.0	0.8	18.3	0.0	0.0	0.8	14.5	3.6	32.0	0.0	8.6
Prop In Lane	0.65		1.00	0.45		0.50	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	57	263	0	0	320	780	909	483	0	947
V/C Ratio(X)	0.26	0.00	0.19	0.99	0.00	0.00	0.06	0.70	0.28	1.03	0.00	0.50
Avail Cap(c_a), veh/h	284	0	248	263	0	0	320	780	909	483	0	947
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.80	0.80	0.80	0.66	0.00	0.66
Uniform Delay (d), s/veh	56.3	0.0	56.2	50.7	0.0	0.0	32.1	7.6	3.7	33.3	0.0	5.7
Incr Delay (d2), s/veh	2.1	0.0	1.6	53.0	0.0	0.0	0.1	4.2	0.6	42.4	0.0	1.3
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	0.5	0.0	0.3	11.7	0.0	0.0	0.4	3.9	1.5	17.6	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	0.0	57.8	103.7	0.0	0.0	32.2	11.8	4.3	75.7	0.0	6.9
LnGrp LOS	E	A	E	F	A	A	C	B	A	F	A	A
Approach Vol, veh/h		28			261			816				976
Approach Delay, s/veh		58.2			103.7			9.9				42.1
Approach LOS		E			F			A				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.0	53.3		8.2	25.3	64.0		22.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	32.0	35.0		18.5	7.0	60.0		18.5				
Max Q Clear Time (g_c+I1), s	34.0	16.5		3.1	2.8	10.6		20.3				
Green Ext Time (p_c), s	0.0	4.3		0.0	0.0	3.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps

Moreno Valley Trade Center

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑			↑	↕
Traffic Volume (veh/h)	162	0	271	0	0	0	126	523	0	0	455	59
Future Volume (veh/h)	162	0	271	0	0	0	126	523	0	0	455	59
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	202	0	339				158	654	0	0	569	74
Peak Hour Factor	0.80	0.92	0.80				0.80	0.80	0.92	0.92	0.80	0.80
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	215	0	362				283	1121	0	0	760	1197
Arrive On Green	0.34	0.00	0.34				0.16	0.59	0.00	0.00	0.13	0.13
Sat Flow, veh/h	627	0	1052				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	541	0	0				158	654	0	0	569	74
Grp Sat Flow(s),veh/h/ln	1679	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	37.4	0.0	0.0				9.7	25.8	0.0	0.0	34.6	2.1
Cycle Q Clear(g_c), s	37.4	0.0	0.0				9.7	25.8	0.0	0.0	34.6	2.1
Prop In Lane	0.37		0.63				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	577	0	0				283	1121	0	0	760	1197
V/C Ratio(X)	0.94	0.00	0.00				0.56	0.58	0.00	0.00	0.75	0.06
Avail Cap(c_a), veh/h	630	0	0				283	1121	0	0	760	1197
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh	38.1	0.0	0.0				46.8	15.4	0.0	0.0	46.3	6.1
Incr Delay (d2), s/veh	20.9	0.0	0.0				2.4	2.2	0.0	0.0	6.2	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
%ile BackOfQ(50%),veh/ln	18.5	0.0	0.0				4.6	11.5	0.0	0.0	19.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	0.0	0.0				49.2	17.6	0.0	0.0	52.5	6.2
LnGrp LOS	E	A	A				D	B	A	A	D	A
Approach Vol, veh/h		541						812			643	
Approach Delay, s/veh		59.1						23.8			47.2	
Approach LOS		E						C			D	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		74.8		45.2	22.8	52.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		67.0		45.0	15.0	48.0						
Max Q Clear Time (g_c+I1), s		27.8		39.4	11.7	36.6						
Green Ext Time (p_c), s		5.2		1.8	0.1	3.1						
Intersection Summary												
HCM 6th Ctrl Delay											40.9	
HCM 6th LOS											D	

Intersection						
Intersection Delay, s/veh16.0						
Intersection LOS C						
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	96	103		819	931	
Demand Flow Rate, veh/h	96	103		819	931	
Vehicles Circulating, veh/h	831	795		369	45	
Vehicles Exiting, veh/h	145	393		558	853	
Ped Vol Crossing Leg, #/h	0	0		0	0	
Ped Cap Adj	1.000	1.000		1.000	1.000	
Approach Delay, s/veh	8.1	6.2		26.7	8.5	
Approach LOS	A	A		D	A	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.252	0.748	1.000	0.866	0.134
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	96	26	77	819	806	125
Cap Entry Lane, veh/h	591	689	689	947	1363	1363
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	96	26	77	819	806	125
Cap Entry, veh/h	591	689	689	947	1363	1363
V/C Ratio	0.162	0.038	0.112	0.865	0.591	0.092
Control Delay, s/veh	8.1	5.6	6.4	26.7	9.3	3.4
LOS	A	A	A	D	A	A
95th %tile Queue, veh	1	0	0	11	4	0

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	2	0	627	426	6
Future Vol, veh/h	24	2	0	627	426	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	3	0	794	539	8

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1337	543	547	0	-	0
Stage 1	543	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	171	544	1033	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	544	1033	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	449	-	-	-	-	-













Approach	EB	NB	SB
HCM Control Delay, s	29	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1033	-	171	544	-	-
HCM Lane V/C Ratio	-	-	0.178	0.005	-	-
HCM Control Delay (s)	0	-	30.5	11.6	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	0	-	-

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	249	19	564	619	58	373
Future Volume (veh/h)	249	19	564	619	58	373
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	268	20	606	666	62	401
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	304	631	966	1089	405	1454
Arrive On Green	0.17	0.17	0.68	0.68	0.22	0.77
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	268	20	606	666	62	401
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	17.4	0.0	21.5	23.5	3.3	7.5
Cycle Q Clear(g_c), s	17.4	0.0	21.5	23.5	3.3	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	304	631	966	1089	405	1454
V/C Ratio(X)	0.88	0.03	0.63	0.61	0.15	0.28
Avail Cap(c_a), veh/h	558	857	966	1089	405	1454
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	48.8	22.5	13.0	6.7	37.4	4.2
Incr Delay (d2), s/veh	8.3	0.0	0.3	0.2	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.4	7.4	10.4	1.5	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.1	22.5	13.3	6.9	37.6	4.7
LnGrp LOS	E	C	B	A	D	A
Approach Vol, veh/h	288		1272			463
Approach Delay, s/veh	54.7		10.0			9.1
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	30.9	65.0			95.9	24.1
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	10.0	61.0			75.0	37.0
Max Q Clear Time (g_c+I1), s	5.3	25.5			9.5	19.4
Green Ext Time (p_c), s	0.0	8.3			2.8	0.8
Intersection Summary						
HCM 6th Ctrl Delay			16.1			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	333	8	710	0	0	0	0	851	302	86	534	0
Future Volume (veh/h)	333	8	710	0	0	0	0	851	302	86	534	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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			
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	340	8	724				0	868	308	88	545	0
Peak Hour Factor	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
Cap, veh/h	324	8	295				0	792	671	79	487	0
Arrive On Green	0.18	0.18	0.18				0.00	0.14	0.14	0.30	0.30	0.00
Sat Flow, veh/h	1770	42	1610				0	1900	1610	262	1625	0
Grp Volume(v), veh/h	348	0	724				0	868	308	633	0	0
Grp Sat Flow(s),veh/h/ln	1812	0	1610				0	1900	1610	1887	0	0
Q Serve(g_s), s	22.0	0.0	22.0				0.0	50.0	21.1	36.0	0.0	0.0
Cycle Q Clear(g_c), s	22.0	0.0	22.0				0.0	50.0	21.1	36.0	0.0	0.0
Prop In Lane	0.98		1.00				0.00		1.00	0.14		0.00
Lane Grp Cap(c), veh/h	332	0	295				0	792	671	566	0	0
V/C Ratio(X)	1.05	0.00	2.45				0.00	1.10	0.46	1.12	0.00	0.00
Avail Cap(c_a), veh/h	332	0	295				0	792	671	566	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.83	0.83	0.88	0.00	0.00
Uniform Delay (d), s/veh	49.0	0.0	49.0				0.0	51.8	39.3	42.0	0.0	0.0
Incr Delay (d2), s/veh	62.5	0.0	663.8				0.0	59.1	1.9	72.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	0.0	63.2				0.0	38.5	9.5	27.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.5	0.0	712.8				0.0	110.9	41.2	114.6	0.0	0.0
LnGrp LOS	F	A	F				A	F	D	F	A	A
Approach Vol, veh/h		1072						1176			633	
Approach Delay, s/veh		517.6						92.6			114.6	
Approach LOS		F						F			F	
Timer - Assigned Phs		2	4			6						
Phs Duration (G+Y+Rc), s		54.0	26.0			40.0						
Change Period (Y+Rc), s		4.0	4.0			4.0						
Max Green Setting (Gmax), s		50.0	22.0			36.0						
Max Q Clear Time (g_c+I1), s		52.0	24.0			38.0						
Green Ext Time (p_c), s		0.0	0.0			0.0						
Intersection Summary												
HCM 6th Ctrl Delay			255.6									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	384	53	208	85	79	171	171	596	34	91	879	279
Future Volume (veh/h)	384	53	208	85	79	171	171	596	34	91	879	279
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		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	409	56	221	90	84	182	182	634	36	97	935	297
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	470	295	250	197	247	210	329	1932	862	122	1519	678
Arrive On Green	0.13	0.16	0.16	0.11	0.13	0.13	0.18	0.54	0.54	0.07	0.42	0.42
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	409	56	221	90	84	182	182	634	36	97	935	297
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	13.7	3.1	16.1	5.6	4.8	13.3	11.0	11.9	0.8	6.3	24.3	10.3
Cycle Q Clear(g_c), s	13.7	3.1	16.1	5.6	4.8	13.3	11.0	11.9	0.8	6.3	24.3	10.3
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	470	295	250	197	247	210	329	1932	862	122	1519	678
V/C Ratio(X)	0.87	0.19	0.89	0.46	0.34	0.87	0.55	0.33	0.04	0.80	0.62	0.44
Avail Cap(c_a), veh/h	527	372	315	197	293	248	329	1932	862	196	1519	678
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)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.14	0.14	0.14
Uniform Delay (d), s/veh	50.9	44.1	49.6	50.1	47.5	51.2	44.7	15.7	5.1	55.1	27.2	10.5
Incr Delay (d2), s/veh	12.9	0.3	20.1	1.6	0.8	23.6	2.0	0.5	0.1	1.7	0.3	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	6.9	1.5	7.9	2.6	2.3	6.7	5.1	5.0	0.5	2.9	10.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	44.4	69.8	51.8	48.3	74.8	46.7	16.2	5.2	56.9	27.4	10.8
LnGrp LOS	E	D	E	D	D	E	D	B	A	E	C	B
Approach Vol, veh/h		686			356			852			1329	
Approach Delay, s/veh		64.2			62.7			22.2			25.9	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	68.2	17.1	22.6	25.8	54.5	20.1	19.6				
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	13.0	54.5	13.0	23.5	17.0	50.5	18.0	18.5				
Max Q Clear Time (g_c+1), s	10.3	13.9	7.6	18.1	13.0	26.3	15.7	15.3				
Green Ext Time (p_c), s	0.1	5.1	0.1	0.5	0.2	8.5	0.4	0.3				

Intersection Summary

HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	86	42	16	117	1	80	6	8	0	6	18
Future Vol, veh/h	13	86	42	16	117	1	80	6	8	0	6	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	105	51	20	143	1	98	7	10	0	7	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	144	0	0	156	0	0	335	321	105	354	371	143
Stage 1	-	-	-	-	-	-	137	137	-	183	183	-
Stage 2	-	-	-	-	-	-	198	184	-	171	188	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1451	-	-	1436	-	-	622	599	955	605	562	910
Stage 1	-	-	-	-	-	-	871	787	-	823	752	-
Stage 2	-	-	-	-	-	-	808	751	-	836	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1451	-	-	1436	-	-	590	584	955	582	548	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	632	607	-	582	548	-
Stage 1	-	-	-	-	-	-	861	778	-	814	741	-
Stage 2	-	-	-	-	-	-	770	740	-	811	740	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			0.9			11.4			9.8		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	632	767	1451	-	-	1436	-	-	781
HCM Lane V/C Ratio	0.154	0.022	0.011	-	-	0.014	-	-	0.037
HCM Control Delay (s)	11.7	9.8	7.5	-	-	7.5	-	-	9.8
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.5	0.1	0	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	0	59	0	0	84	0	0	0	0	0	0	0
Future Vol, veh/h	0	59	0	0	84	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	69	0	0	98	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	98	0	0	69	0	0	118	167	69	167	167	49
Stage 1	-	-	-	-	-	-	69	69	-	98	98	-
Stage 2	-	-	-	-	-	-	49	98	-	69	69	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1508	-	-	1545	-	-	857	729	1000	794	729	1016
Stage 1	-	-	-	-	-	-	946	841	-	903	818	-
Stage 2	-	-	-	-	-	-	964	818	-	946	841	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1508	-	-	1545	-	-	857	729	1000	794	729	1016
Mov Cap-2 Maneuver	-	-	-	-	-	-	827	711	-	783	711	-
Stage 1	-	-	-	-	-	-	946	841	-	903	818	-
Stage 2	-	-	-	-	-	-	964	818	-	946	841	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1508	-	-	1545	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	1	0	0	0	3	0	0	0
Future Vol, veh/h	0	0	0	12	1	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	58	58	58	58	92	58	92	58	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	21	2	0	0	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	2	0	0	46	46	2	49	46	2
Stage 1	-	-	-	-	-	-	2	2	-	44	44	-
Stage 2	-	-	-	-	-	-	44	44	-	5	2	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1634	-	-	961	850	1088	956	850	1088
Stage 1	-	-	-	-	-	-	1026	898	-	975	862	-
Stage 2	-	-	-	-	-	-	975	862	-	1022	898	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1634	-	-	1634	-	-	951	839	1088	942	839	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	951	839	-	942	839	-
Stage 1	-	-	-	-	-	-	1026	898	-	975	851	-
Stage 2	-	-	-	-	-	-	962	851	-	1017	898	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	6.7	8.3	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1088	1634	-	-	1634	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	0.013	-	-	-
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	3	0	7	13	0	0	0	3	0	0	0
Future Vol, veh/h	0	3	0	7	13	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	5	0	12	22	0	0	0	5	0	0	0

Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	22	0	0	5	0	0	51	51	5	54	51	22
Stage 1	-	-	-	-	-	-	5	5	-	46	46	-
Stage 2	-	-	-	-	-	-	46	46	-	8	5	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1607	-	-	1630	-	-	953	844	1084	949	844	1061
Stage 1	-	-	-	-	-	-	1022	896	-	973	861	-
Stage 2	-	-	-	-	-	-	973	861	-	1019	896	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1607	-	-	1630	-	-	948	838	1084	940	838	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	948	838	-	940	838	-
Stage 1	-	-	-	-	-	-	1022	896	-	973	855	-
Stage 2	-	-	-	-	-	-	966	855	-	1014	896	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	8.3	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1084	1607	-	-	1630	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	0.007	-	-	-
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

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	7	0	3	20	0	0	0	2	0	0	0
Future Vol, veh/h	0	7	0	3	20	0	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	64	64	64	64	92	64	92	64	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	5	31	0	0	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	11	0	0	52	52	6	47	52	31
Stage 1	-	-	-	-	-	-	11	11	-	41	41	-
Stage 2	-	-	-	-	-	-	41	41	-	6	11	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1595	-	-	1621	-	-	949	843	1081	957	843	1049
Stage 1	-	-	-	-	-	-	1014	890	-	979	865	-
Stage 2	-	-	-	-	-	-	979	865	-	1020	890	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1595	-	-	1621	-	-	947	840	1081	952	840	1049
Mov Cap-2 Maneuver	-	-	-	-	-	-	947	840	-	952	840	-
Stage 1	-	-	-	-	-	-	1014	890	-	979	862	-
Stage 2	-	-	-	-	-	-	976	862	-	1017	890	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.9			8.3			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1081	1595	-	-	1621	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	0.003	-	-	-
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↔		↖	↑	↗	↖	↕	↗
Traffic Volume (veh/h)	9	7	3	87	0	46	4	801	256	446	502	9
Future Volume (veh/h)	9	7	3	87	0	46	4	801	256	446	502	9
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		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	9	7	3	89	0	47	4	817	261	455	512	9
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	28	22	44	108	0	57	13	681	731	698	1371	24
Arrive On Green	0.03	0.03	0.03	0.10	0.00	0.10	0.00	0.24	0.24	0.77	1.00	1.00
Sat Flow, veh/h	1040	809	1610	1136	0	600	1810	1900	1610	1810	1861	33
Grp Volume(v), veh/h	16	0	3	136	0	0	4	817	261	455	0	521
Grp Sat Flow(s),veh/h/ln	1848	0	1610	1735	0	0	1810	1900	1610	1810	0	1894
Q Serve(g_s), s	1.0	0.0	0.2	9.2	0.0	0.0	0.3	43.0	14.1	13.9	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.2	9.2	0.0	0.0	0.3	43.0	14.1	13.9	0.0	0.0
Prop In Lane	0.56		1.00	0.65		0.35	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	51	0	44	166	0	0	13	681	731	698	0	1395
V/C Ratio(X)	0.32	0.00	0.07	0.82	0.00	0.00	0.30	1.20	0.36	0.65	0.00	0.37
Avail Cap(c_a), veh/h	285	0	248	268	0	0	106	681	731	698	0	1395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.82	0.82	0.82	0.62	0.00	0.62
Uniform Delay (d), s/veh	57.3	0.0	56.9	53.3	0.0	0.0	59.4	45.6	25.8	10.0	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.6	10.1	0.0	0.0	10.2	101.5	1.1	1.4	0.0	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	0.5	0.0	0.1	4.5	0.0	0.0	0.2	40.2	7.1	3.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	0.0	57.5	63.4	0.0	0.0	69.6	147.1	26.9	11.4	0.0	0.5
LnGrp LOS	E	A	E	E	A	A	E	F	C	B	A	A
Approach Vol, veh/h		19			136			1082				976
Approach Delay, s/veh		60.3			63.4			117.8				5.6
Approach LOS		E			E			F				A
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	50.3	47.0		7.3	4.9	92.4		15.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	24.0	43.0		18.5	7.0	60.0		18.5				
Max Q Clear Time (g_c+I1), s	15.9	45.0		3.0	2.3	2.0		11.2				
Green Ext Time (p_c), s	1.0	0.0		0.0	0.0	3.9		0.4				

Intersection Summary

HCM 6th Ctrl Delay	64.5
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↕			↕	↕
Traffic Volume (veh/h)	487	0	209	0	0	0	148	512	0	0	518	56
Future Volume (veh/h)	487	0	209	0	0	0	148	512	0	0	518	56
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	507	0	218				154	533	0	0	540	58
Peak Hour Factor	0.96	0.92	0.96				0.96	0.96	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	526	0	226				215	954	0	0	665	1258
Arrive On Green	0.43	0.00	0.43				0.24	1.00	0.00	0.00	0.70	0.70
Sat Flow, veh/h	1220	0	525				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	725	0	0				154	533	0	0	540	58
Grp Sat Flow(s),veh/h/ln	1745	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	48.5	0.0	0.0				9.4	0.0	0.0	0.0	23.7	0.5
Cycle Q Clear(g_c), s	48.5	0.0	0.0				9.4	0.0	0.0	0.0	23.7	0.5
Prop In Lane	0.70		0.30				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	752	0	0				215	954	0	0	665	1258
V/C Ratio(X)	0.96	0.00	0.00				0.72	0.56	0.00	0.00	0.81	0.05
Avail Cap(c_a), veh/h	771	0	0				215	954	0	0	665	1258
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	0.00				1.00	1.00	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh	33.2	0.0	0.0				43.9	0.0	0.0	0.0	15.3	1.3
Incr Delay (d2), s/veh	23.5	0.0	0.0				10.9	2.4	0.0	0.0	9.9	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
%ile BackOfQ(50%),veh/ln	24.9	0.0	0.0				4.5	0.6	0.0	0.0	7.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	0.0	0.0				54.8	2.4	0.0	0.0	25.2	1.4
LnGrp LOS	E	A	A				D	A	A	A	C	A
Approach Vol, veh/h		725						687			598	
Approach Delay, s/veh		56.7						14.1			22.9	
Approach LOS		E						B			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		64.2		55.8	18.2	46.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		59.0		53.0	13.0	42.0						
Max Q Clear Time (g_c+I1), s		2.0		50.5	11.4	25.7						
Green Ext Time (p_c), s		4.0		1.2	0.1	3.4						
Intersection Summary												
HCM 6th Ctrl Delay											32.1	
HCM 6th LOS											C	

Intersection						
Intersection Delay, s/veh	8.4					
Intersection LOS	A					
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	86	435		539	816	
Demand Flow Rate, veh/h	86	435		539	816	
Vehicles Circulating, veh/h	863	571		129	133	
Vehicles Exiting, veh/h	86	97		820	873	
Ped Vol Crossing Leg, #/h	0	0		0	0	
Ped Cap Adj	1.000	1.000		1.000	1.000	
Approach Delay, s/veh	8.2	7.9		7.6	9.4	
Approach LOS	A	A		A	A	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.269	0.731	1.000	0.915	0.085
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	86	117	318	539	747	69
Cap Entry Lane, veh/h	572	845	845	1210	1258	1258
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	86	117	318	539	747	69
Cap Entry, veh/h	572	845	845	1210	1258	1258
V/C Ratio	0.150	0.139	0.377	0.446	0.594	0.055
Control Delay, s/veh	8.2	5.6	8.7	7.6	9.9	3.3
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	0	2	2	4	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↵	↵		↵	↵	
Traffic Vol, veh/h	9	0	0	512	750	19
Future Vol, veh/h	9	0	0	512	750	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
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	9	0	0	533	781	20













Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1324	791	801	0	-	0
Stage 1	791	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	174	393	831	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	174	393	831	-	-	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	593	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	831	-	174	-	-	-
HCM Lane V/C Ratio	-	-	0.054	-	-	-
HCM Control Delay (s)	0	-	26.9	0	-	-
HCM Lane LOS	A	-	D	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-	-

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	211	7	464	522	116	311
Future Volume (veh/h)	211	7	464	522	116	311
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	243	8	533	600	133	357
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	278	778	792	918	596	1481
Arrive On Green	0.15	0.15	0.70	0.70	0.33	0.78
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	243	8	533	600	133	357
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	15.8	0.0	19.3	26.5	6.4	6.1
Cycle Q Clear(g_c), s	15.8	0.0	19.3	26.5	6.4	6.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	278	778	792	918	596	1481
V/C Ratio(X)	0.87	0.01	0.67	0.65	0.22	0.24
Avail Cap(c_a), veh/h	603	1067	792	918	596	1481
HCM Platoon Ratio	1.00	1.00	1.67	1.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	49.6	16.1	13.6	8.7	29.1	3.6
Incr Delay (d2), s/veh	8.4	0.0	0.4	0.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.1	5.5	8.5	2.8	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.0	16.1	14.0	9.1	29.3	4.0
LnGrp LOS	E	B	B	A	C	A
Approach Vol, veh/h	251		1133			490
Approach Delay, s/veh	56.7		11.4			10.8
Approach LOS	E		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	43.5	54.0			97.5	22.5
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	18.0	50.0			72.0	40.0
Max Q Clear Time (g_c+I1), s	8.4	28.5			8.1	17.8
Green Ext Time (p_c), s	0.2	6.2			2.4	0.7
Intersection Summary						
HCM 6th Ctrl Delay			17.3			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	246	11	637	0	0	0	0	738	256	78	463	0
Future Volume (veh/h)	246	11	637	0	0	0	0	738	256	78	463	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	296	13	767				0	889	308	94	558	0
Peak Hour Factor	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
Cap, veh/h	318	14	295				0	808	684	79	471	0
Arrive On Green	0.18	0.18	0.18				0.00	0.57	0.57	0.39	0.39	0.00
Sat Flow, veh/h	1737	76	1610				0	1900	1610	272	1614	0
Grp Volume(v), veh/h	309	0	767				0	889	308	652	0	0
Grp Sat Flow(s),veh/h/ln	1813	0	1610				0	1900	1610	1886	0	0
Q Serve(g_s), s	20.1	0.0	22.0				0.0	51.0	13.4	35.0	0.0	0.0
Cycle Q Clear(g_c), s	20.1	0.0	22.0				0.0	51.0	13.4	35.0	0.0	0.0
Prop In Lane	0.96		1.00				0.00		1.00	0.14		0.00
Lane Grp Cap(c), veh/h	332	0	295				0	808	684	550	0	0
V/C Ratio(X)	0.93	0.00	2.60				0.00	1.10	0.45	1.19	0.00	0.00
Avail Cap(c_a), veh/h	332	0	295				0	808	684	550	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.81	0.81	0.90	0.00	0.00
Uniform Delay (d), s/veh	48.2	0.0	49.0				0.0	26.1	17.9	36.7	0.0	0.0
Incr Delay (d2), s/veh	31.8	0.0	729.0				0.0	60.3	1.7	99.1	0.0	0.0
Initial Q Delay(d3),s/veh	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	0.0	68.6				0.0	33.3	4.8	30.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	0.0	778.0				0.0	86.3	19.6	135.8	0.0	0.0
LnGrp LOS	E	A	F				A	F	B	F	A	A
Approach Vol, veh/h		1076						1197			652	
Approach Delay, s/veh		577.5						69.2			135.8	
Approach LOS		F						E			F	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		55.0		26.0				39.0				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		51.0		22.0				35.0				
Max Q Clear Time (g_c+I1), s		53.0		24.0				37.0				
Green Ext Time (p_c), s		0.0		0.0				0.0				
Intersection Summary												
HCM 6th Ctrl Delay			271.0									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↖	↑	↗	↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	218	90	115	38	42	88	155	692	67	283	643	176
Future Volume (veh/h)	218	90	115	38	42	88	155	692	67	283	643	176
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		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	263	108	139	46	51	106	187	834	81	341	775	212
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	322	204	173	83	116	98	218	1309	584	635	2142	955
Arrive On Green	0.09	0.11	0.11	0.05	0.06	0.06	0.12	0.36	0.36	0.35	0.59	0.59
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	263	108	139	46	51	106	187	834	81	341	775	212
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	8.8	6.5	10.1	3.0	3.1	4.1	12.2	23.0	3.3	18.1	13.3	7.4
Cycle Q Clear(g_c), s	8.8	6.5	10.1	3.0	3.1	4.1	12.2	23.0	3.3	18.1	13.3	7.4
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	322	204	173	83	116	98	218	1309	584	635	2142	955
V/C Ratio(X)	0.82	0.53	0.80	0.56	0.44	1.08	0.86	0.64	0.14	0.54	0.36	0.22
Avail Cap(c_a), veh/h	380	372	315	121	293	248	332	1309	584	635	2142	955
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)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	53.5	50.7	52.3	56.1	54.3	17.3	51.8	31.7	17.4	31.1	12.6	11.4
Incr Delay (d2), s/veh	10.9	2.1	8.2	5.7	2.6	64.1	13.2	2.4	0.5	0.1	0.0	0.0
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	4.4	3.2	4.5	1.5	1.6	4.6	6.3	10.4	1.6	7.9	5.3	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	52.8	60.6	61.8	56.9	81.5	65.0	34.1	17.9	31.2	12.7	11.5
LnGrp LOS	E	D	E	E	E	F	E	C	B	C	B	B
Approach Vol, veh/h		510			203			1102			1328	
Approach Delay, s/veh		60.9			70.8			38.1			17.2	
Approach LOS		E			E			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.1	47.5	9.5	16.9	18.4	75.2	15.0	11.3				
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	29.0	43.5	8.0	23.5	22.0	50.5	13.0	18.5				
Max Q Clear Time (g_c+20), s	20.5	25.0	5.0	12.1	14.2	15.3	10.8	6.1				
Green Ext Time (p_c), s	0.7	6.0	0.0	0.8	0.3	7.2	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	206	60	14	122	2	35	2	19	0	1	4
Future Vol, veh/h	11	206	60	14	122	2	35	2	19	0	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	234	68	16	139	2	40	2	22	0	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	141	0	0	302	0	0	435	433	234	477	499	139
Stage 1	-	-	-	-	-	-	260	260	-	171	171	-
Stage 2	-	-	-	-	-	-	175	173	-	306	328	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1455	-	-	1270	-	-	535	519	810	502	476	915
Stage 1	-	-	-	-	-	-	749	697	-	836	761	-
Stage 2	-	-	-	-	-	-	832	760	-	708	651	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1455	-	-	1270	-	-	523	508	810	479	466	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	590	557	-	479	466	-
Stage 1	-	-	-	-	-	-	742	691	-	828	751	-
Stage 2	-	-	-	-	-	-	816	750	-	681	645	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			10.9			9.7		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	590	776	1455	-	-	1270	-	-	767
HCM Lane V/C Ratio	0.067	0.031	0.009	-	-	0.013	-	-	0.007
HCM Control Delay (s)	11.5	9.8	7.5	-	-	7.9	-	-	9.7
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	2	79	88	66	83	0	26	0	30	2	0	0
Future Vol, veh/h	2	79	88	66	83	0	26	0	30	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	92	92	90	90	92	92	92	90	92	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	88	96	72	92	0	28	0	33	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	184	0	0	330	376	136	393	424	46
Stage 1	-	-	-	-	-	-	140	140	-	236	236	-
Stage 2	-	-	-	-	-	-	190	236	-	157	188	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1515	-	-	1403	-	-	616	558	918	558	525	1020
Stage 1	-	-	-	-	-	-	868	785	-	752	713	-
Stage 2	-	-	-	-	-	-	799	713	-	850	748	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1515	-	-	1403	-	-	591	529	918	517	498	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	634	568	-	578	536	-
Stage 1	-	-	-	-	-	-	867	784	-	751	677	-
Stage 2	-	-	-	-	-	-	758	677	-	819	747	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			3.4			10.1			11.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	760	1515	-	-	1403	-	-	578
HCM Lane V/C Ratio	0.08	0.001	-	-	0.051	-	-	0.004
HCM Control Delay (s)	10.1	7.4	-	-	7.7	-	-	11.3
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	2	4	2	11	1	0	6	3	0	0
Future Vol, veh/h	1	1	2	4	2	11	1	0	6	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	75	75	75	75	92	75	92	75	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	3	5	3	12	1	0	8	3	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	15	0	0	4	0	0	24	30	3	28	25	9
Stage 1	-	-	-	-	-	-	5	5	-	19	19	-
Stage 2	-	-	-	-	-	-	19	25	-	9	6	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1616	-	-	1631	-	-	993	867	1087	987	872	1079
Stage 1	-	-	-	-	-	-	1022	896	-	1005	884	-
Stage 2	-	-	-	-	-	-	1005	878	-	1017	895	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1616	-	-	1631	-	-	990	864	1087	977	869	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-	990	864	-	977	869	-
Stage 1	-	-	-	-	-	-	1021	895	-	1004	881	-
Stage 2	-	-	-	-	-	-	1002	875	-	1009	894	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	1.9	8.4	8.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1072	1616	-	-	1631	-	-	977
HCM Lane V/C Ratio	0.009	0.001	-	-	0.003	-	-	0.003
HCM Control Delay (s)	8.4	7.2	0	-	7.2	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

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	10	0	0	17	15	1	0	17	5	0	0
Future Vol, veh/h	0	10	0	0	17	15	1	0	17	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	17	0	0	28	16	2	0	28	5	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	44	0	0	17	0	0	53	61	17	67	53	36
Stage 1	-	-	-	-	-	-	17	17	-	36	36	-
Stage 2	-	-	-	-	-	-	36	44	-	31	17	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1577	-	-	1613	-	-	951	834	1068	931	842	1042
Stage 1	-	-	-	-	-	-	1008	885	-	985	869	-
Stage 2	-	-	-	-	-	-	985	862	-	991	885	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1577	-	-	1613	-	-	951	834	1068	906	842	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	951	834	-	906	842	-
Stage 1	-	-	-	-	-	-	1008	885	-	985	869	-
Stage 2	-	-	-	-	-	-	985	862	-	965	885	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.5			9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1061	1577	-	-	1613	-	-	906
HCM Lane V/C Ratio	0.028	-	-	-	-	-	-	0.006
HCM Control Delay (s)	8.5	0	-	-	0	-	-	9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔			↔			↔	
Traffic Vol, veh/h	0	31	0	1	32	22	0	0	6	6	0	0
Future Vol, veh/h	0	31	0	1	32	22	0	0	6	6	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	52	0	2	53	24	0	0	10	7	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	77	0	0	52	0	0	121	133	26	95	121	65
Stage 1	-	-	-	-	-	-	52	52	-	69	69	-
Stage 2	-	-	-	-	-	-	69	81	-	26	52	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1535	-	-	1567	-	-	853	761	1050	888	773	1005
Stage 1	-	-	-	-	-	-	960	856	-	946	841	-
Stage 2	-	-	-	-	-	-	946	832	-	994	856	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1535	-	-	1567	-	-	852	760	1050	879	772	1005
Mov Cap-2 Maneuver	-	-	-	-	-	-	852	760	-	879	772	-
Stage 1	-	-	-	-	-	-	960	856	-	946	840	-
Stage 2	-	-	-	-	-	-	945	831	-	985	856	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			8.5			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1050	1535	-	-	1567	-	-	879
HCM Lane V/C Ratio	0.01	-	-	-	0.001	-	-	0.007
HCM Control Delay (s)	8.5	0	-	-	7.3	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑↑		↑
Traffic Vol, veh/h	131	0	0	182	0	5
Future Vol, veh/h	131	0	0	182	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	142	0	0	198	0	5

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	142
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	911
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	911
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	911	-	-	-
HCM Lane V/C Ratio	0.006	-	-	-
HCM Control Delay (s)	9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	9	5	9	126	10	111	15	466	245	424	407	8
Future Volume (veh/h)	9	5	9	126	10	111	15	466	245	424	407	8
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		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	11	6	11	148	12	131	18	548	288	499	479	9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	23	57	140	11	124	320	769	909	483	919	17
Arrive On Green	0.04	0.04	0.04	0.16	0.16	0.16	0.35	0.81	0.81	0.45	0.83	0.83
Sat Flow, veh/h	1191	650	1610	873	71	773	1810	1900	1610	1810	1859	35
Grp Volume(v), veh/h	17	0	11	291	0	0	18	548	288	499	0	488
Grp Sat Flow(s),veh/h/ln	1840	0	1610	1717	0	0	1810	1900	1610	1810	0	1894
Q Serve(g_s), s	1.1	0.0	0.8	19.2	0.0	0.0	0.8	15.6	4.7	32.0	0.0	9.5
Cycle Q Clear(g_c), s	1.1	0.0	0.8	19.2	0.0	0.0	0.8	15.6	4.7	32.0	0.0	9.5
Prop In Lane	0.65		1.00	0.51		0.45	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	57	275	0	0	320	769	909	483	0	936
V/C Ratio(X)	0.26	0.00	0.19	1.06	0.00	0.00	0.06	0.71	0.32	1.03	0.00	0.52
Avail Cap(c_a), veh/h	284	0	248	275	0	0	320	769	909	483	0	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.72	0.72	0.72	0.63	0.00	0.63
Uniform Delay (d), s/veh	56.3	0.0	56.2	50.4	0.0	0.0	32.1	8.3	4.0	33.3	0.0	6.1
Incr Delay (d2), s/veh	2.1	0.0	1.6	70.7	0.0	0.0	0.1	4.1	0.7	41.6	0.0	1.3
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	0.5	0.0	0.3	13.6	0.0	0.0	0.4	4.1	1.8	17.5	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	0.0	57.8	121.1	0.0	0.0	32.2	12.4	4.6	74.9	0.0	7.4
LnGrp LOS	E	A	E	F	A	A	C	B	A	F	A	A
Approach Vol, veh/h		28			291			854				987
Approach Delay, s/veh		58.2			121.1			10.2				41.6
Approach LOS		E			F			B				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.0	52.6		8.2	25.3	63.3		23.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	32.0	34.3		18.5	7.0	59.3		19.2				
Max Q Clear Time (g_c+I1), s	34.0	17.6		3.1	2.8	11.5		21.2				
Green Ext Time (p_c), s	0.0	4.3		0.0	0.0	3.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑			↑	↕
Traffic Volume (veh/h)	162	0	369	0	0	0	134	555	0	0	489	59
Future Volume (veh/h)	162	0	369	0	0	0	134	555	0	0	489	59
Initial Q (Qb), veh	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
Parking Bus, Adj	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			
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	202	0	461				168	694	0	0	611	74
Peak Hour Factor	0.80	0.92	0.80				0.80	0.80	0.92	0.92	0.80	0.80
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	191	0	436				193	1058	0	0	792	1278
Arrive On Green	0.38	0.00	0.38				0.21	1.00	0.00	0.00	0.42	0.42
Sat Flow, veh/h	508	0	1158				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	663	0	0				168	694	0	0	611	74
Grp Sat Flow(s),veh/h/ln	1666	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	45.2	0.0	0.0				10.8	0.0	0.0	0.0	33.2	1.2
Cycle Q Clear(g_c), s	45.2	0.0	0.0				10.8	0.0	0.0	0.0	33.2	1.2
Prop In Lane	0.30		0.70				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	628	0	0				193	1058	0	0	792	1278
V/C Ratio(X)	1.06	0.00	0.00				0.87	0.66	0.00	0.00	0.77	0.06
Avail Cap(c_a), veh/h	628	0	0				211	1058	0	0	792	1278
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh	37.4	0.0	0.0				46.4	0.0	0.0	0.0	30.1	2.7
Incr Delay (d2), s/veh	51.8	0.0	0.0				28.9	3.2	0.0	0.0	6.6	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
%ile BackOfQ(50%),veh/ln	17.0	0.0	0.0				5.9	0.9	0.0	0.0	16.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.2	0.0	0.0				75.3	3.2	0.0	0.0	36.7	2.8
LnGrp LOS	F	A	A				E	A	A	A	D	A
Approach Vol, veh/h		663						862			685	
Approach Delay, s/veh		89.2						17.2			33.0	
Approach LOS		F						B			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		70.8		49.2	16.8	54.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		66.8		45.2	14.0	48.8						
Max Q Clear Time (g_c+I1), s		2.0		47.2	12.8	35.2						
Green Ext Time (p_c), s		5.9		0.0	0.1	3.7						
Intersection Summary												
HCM 6th Ctrl Delay											43.7	
HCM 6th LOS											D	

Intersection						
Intersection Delay, s/veh19.7						
Intersection LOS C						
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	174	110		838	1099	
Demand Flow Rate, veh/h	174	110		838	1099	
Vehicles Circulating, veh/h	924	855		414	63	
Vehicles Exiting, veh/h	238	397		684	902	
Ped Vol Crossing Leg, #/h	0	0		0	0	
Ped Cap Adj	1.000	1.000		1.000	1.000	
Approach Delay, s/veh	11.5	6.6		36.0	9.9	
Approach LOS	B	A		E	A	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.300	0.700	1.000	0.814	0.186
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	174	33	77	838	895	204
Cap Entry Lane, veh/h	538	652	652	905	1341	1341
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	174	33	77	838	895	204
Cap Entry, veh/h	538	652	652	905	1341	1341
V/C Ratio	0.324	0.051	0.118	0.926	0.667	0.152
Control Delay, s/veh	11.5	6.1	6.8	36.0	11.2	3.9
LOS	B	A	A	E	B	A
95th %tile Queue, veh	1	0	0	14	5	1

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	4	0	663	527	14
Future Vol, veh/h	0	4	0	663	527	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	0	721	573	15

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	581	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.2	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	517	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	517	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 517	-	-
HCM Lane V/C Ratio	- 0.008	-	-
HCM Control Delay (s)	- 12	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	4	0	663	468	62
Future Vol, veh/h	0	4	0	663	468	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	0	721	509	67

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	543	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.2	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	544	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	544	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	544	-	-
HCM Lane V/C Ratio	-	0.008	-	-
HCM Control Delay (s)	-	11.7	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	5	26	629	432	28
Future Vol, veh/h	36	5	26	629	432	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	46	6	33	796	547	35

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1427	565	582	0	-	0
Stage 1	565	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	150	528	1002	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	141	528	1002	-	-	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	417	-	-	-	-	-













Approach	EB	NB	SB
HCM Control Delay, s	38.6	0.3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1002	-	141	528	-	-
HCM Lane V/C Ratio	0.033	-	0.323	0.012	-	-
HCM Control Delay (s)	8.7	0	42.3	11.9	-	-
HCM Lane LOS	A	A	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.3	0	-	-

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center

03/30/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	249	19	567	719	58	374
Future Volume (veh/h)	249	19	567	719	58	374
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	268	20	610	773	62	402
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	304	631	966	1089	405	1454
Arrive On Green	0.17	0.17	0.68	0.68	0.22	0.77
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	268	20	610	773	62	402
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	17.4	0.0	21.8	34.0	3.3	7.6
Cycle Q Clear(g_c), s	17.4	0.0	21.8	34.0	3.3	7.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	304	631	966	1089	405	1454
V/C Ratio(X)	0.88	0.03	0.63	0.71	0.15	0.28
Avail Cap(c_a), veh/h	573	870	966	1089	405	1454
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	48.8	22.5	13.1	7.8	37.4	4.2
Incr Delay (d2), s/veh	8.3	0.0	0.3	0.4	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.4	7.5	15.0	1.5	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.0	22.5	13.4	8.1	37.6	4.7
LnGrp LOS	E	C	B	A	D	A
Approach Vol, veh/h	288		1383			464
Approach Delay, s/veh	54.6		10.4			9.1
Approach LOS	D		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	30.9	65.0			95.9	24.1
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	9.0	61.0			74.0	38.0
Max Q Clear Time (g_c+I1), s	5.3	36.0			9.6	19.4
Green Ext Time (p_c), s	0.0	8.5			2.8	0.8
Intersection Summary						
HCM 6th Ctrl Delay			16.1			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗		↕	
Traffic Volume (veh/h)	333	8	749	0	0	0	0	954	302	86	535	0
Future Volume (veh/h)	333	8	749	0	0	0	0	954	302	86	535	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	340	8	764				0	973	308	88	546	0
Peak Hour Factor	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
Cap, veh/h	369	9	335				0	792	671	72	447	0
Arrive On Green	0.21	0.21	0.21				0.00	0.14	0.14	0.28	0.28	0.00
Sat Flow, veh/h	1770	42	1610				0	1900	1610	262	1625	0
Grp Volume(v), veh/h	348	0	764				0	973	308	634	0	0
Grp Sat Flow(s),veh/h/ln	1812	0	1610				0	1900	1610	1887	0	0
Q Serve(g_s), s	22.6	0.0	25.0				0.0	50.0	21.1	33.0	0.0	0.0
Cycle Q Clear(g_c), s	22.6	0.0	25.0				0.0	50.0	21.1	33.0	0.0	0.0
Prop In Lane	0.98		1.00				0.00		1.00	0.14		0.00
Lane Grp Cap(c), veh/h	377	0	335				0	792	671	519	0	0
V/C Ratio(X)	0.92	0.00	2.28				0.00	1.23	0.46	1.22	0.00	0.00
Avail Cap(c_a), veh/h	377	0	335				0	792	671	519	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.80	0.80	0.88	0.00	0.00
Uniform Delay (d), s/veh	46.5	0.0	47.5				0.0	51.8	39.3	43.5	0.0	0.0
Incr Delay (d2), s/veh	27.7	0.0	584.3				0.0	112.1	1.8	114.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	0.0	64.4				0.0	50.2	9.5	31.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.2	0.0	631.8				0.0	163.8	41.1	158.0	0.0	0.0
LnGrp LOS	E	A	F				A	F	D	F	A	A
Approach Vol, veh/h		1112						1281			634	
Approach Delay, s/veh		457.3						134.3			158.0	
Approach LOS		F						F			F	
Timer - Assigned Phs		2	4		6							
Phs Duration (G+Y+Rc), s		54.0	29.0		37.0							
Change Period (Y+Rc), s		4.0	4.0		4.0							
Max Green Setting (Gmax), s		50.0	25.0		33.0							
Max Q Clear Time (g_c+I1), s		52.0	27.0		35.0							
Green Ext Time (p_c), s		0.0	0.0		0.0							
Intersection Summary												
HCM 6th Ctrl Delay			257.9									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	384	55	219	88	85	274	171	596	35	131	879	279
Future Volume (veh/h)	384	55	219	88	85	274	171	596	35	131	879	279
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		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	409	59	233	94	90	291	182	634	37	139	935	297
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	470	306	260	237	301	255	270	1736	774	169	1534	684
Arrive On Green	0.13	0.16	0.16	0.13	0.16	0.16	0.15	0.48	0.48	0.09	0.43	0.43
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	409	59	233	94	90	291	182	634	37	139	935	297
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1610	1810	1805	1610
Q Serve(g_s), s	13.7	3.2	17.0	5.7	5.0	19.0	11.4	13.3	0.9	9.1	24.1	10.2
Cycle Q Clear(g_c), s	13.7	3.2	17.0	5.7	5.0	19.0	11.4	13.3	0.9	9.1	24.1	10.2
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	470	306	260	237	301	255	270	1736	774	169	1534	684
V/C Ratio(X)	0.87	0.19	0.90	0.40	0.30	1.14	0.67	0.37	0.05	0.82	0.61	0.43
Avail Cap(c_a), veh/h	527	348	295	237	301	255	270	1736	774	347	1534	684
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)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	50.9	43.6	49.4	47.8	44.6	50.5	48.3	19.6	6.3	53.4	26.8	10.3
Incr Delay (d2), s/veh	12.9	0.3	25.0	1.1	0.6	99.9	6.4	0.6	0.1	1.0	0.2	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	6.9	1.6	8.6	2.7	2.4	14.7	5.6	5.7	0.6	4.2	10.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	43.9	74.4	48.9	45.2	150.4	54.7	20.2	6.5	54.4	26.9	10.5
LnGrp LOS	E	D	E	D	D	F	D	C	A	D	C	B
Approach Vol, veh/h		701			475			853			1371	
Approach Delay, s/veh		65.6			110.4			27.0			26.2	
Approach LOS		E			F			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	61.7	19.7	23.4	21.9	55.0	20.1	23.0				
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	23.0	44.0	15.0	22.0	16.0	51.0	18.0	19.0				
Max Q Clear Time (g_c+I), s	11.5	15.3	7.7	19.0	13.4	26.1	15.7	21.0				
Green Ext Time (p_c), s	0.3	4.9	0.1	0.3	0.1	8.6	0.4	0.0				

Intersection Summary

HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↗			↕	
Traffic Vol, veh/h	13	130	42	21	229	1	80	6	10	0	6	18
Future Vol, veh/h	13	130	42	21	229	1	80	6	10	0	6	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	159	51	26	279	1	98	7	12	0	7	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	280	0	0	210	0	0	537	523	159	557	573	279
Stage 1	-	-	-	-	-	-	191	191	-	331	331	-
Stage 2	-	-	-	-	-	-	346	332	-	226	242	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1294	-	-	1373	-	-	458	462	892	444	432	765
Stage 1	-	-	-	-	-	-	815	746	-	687	649	-
Stage 2	-	-	-	-	-	-	674	648	-	781	709	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1294	-	-	1373	-	-	429	448	892	423	419	765
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	507	-	423	419	-
Stage 1	-	-	-	-	-	-	805	737	-	679	637	-
Stage 2	-	-	-	-	-	-	635	636	-	753	700	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.6			13.2			11		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	507	694	1294	-	-	1373	-	-	634
HCM Lane V/C Ratio	0.192	0.028	0.012	-	-	0.019	-	-	0.046
HCM Control Delay (s)	13.8	10.3	7.8	-	-	7.7	-	-	11
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	0	-	-	0.1	-	-	0.1

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	0	69	36	27	110	0	91	0	104	0	0	0
Future Vol, veh/h	0	69	36	27	110	0	91	0	104	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	80	39	29	128	0	99	0	113	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	128	0	0	119	0	0	222	286	100	342	305	64
Stage 1	-	-	-	-	-	-	100	100	-	186	186	-
Stage 2	-	-	-	-	-	-	122	186	-	156	119	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.2	7.3	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1470	-	-	1482	-	-	729	627	961	604	612	994
Stage 1	-	-	-	-	-	-	911	816	-	804	750	-
Stage 2	-	-	-	-	-	-	875	750	-	851	801	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1470	-	-	1482	-	-	718	614	961	525	600	994
Mov Cap-2 Maneuver	-	-	-	-	-	-	729	630	-	585	617	-
Stage 1	-	-	-	-	-	-	911	816	-	804	735	-
Stage 2	-	-	-	-	-	-	858	735	-	751	801	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.4			10.8			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	837	1470	-	-	1482	-	-	-
HCM Lane V/C Ratio	0.253	-	-	-	0.02	-	-	-
HCM Control Delay (s)	10.8	0	-	-	7.5	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1	0	-	-	0.1	-	-	-

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	1	4	0	0	3	11	0	1
Future Vol, veh/h	0	0	0	12	1	4	0	0	3	11	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	58	58	58	58	92	58	92	58	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	21	2	4	0	0	5	12	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	2	0	0	49	50	2	51	48	4
Stage 1	-	-	-	-	-	-	2	2	-	46	46	-
Stage 2	-	-	-	-	-	-	47	48	-	5	2	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1628	-	-	1634	-	-	956	845	1088	953	847	1085
Stage 1	-	-	-	-	-	-	1026	898	-	973	861	-
Stage 2	-	-	-	-	-	-	972	859	-	1022	898	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1628	-	-	1634	-	-	945	834	1088	939	836	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	945	834	-	939	836	-
Stage 1	-	-	-	-	-	-	1026	898	-	973	850	-
Stage 2	-	-	-	-	-	-	958	848	-	1017	898	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			5.6			8.3			8.8		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1088	1628	-	-	1634	-	-	950
HCM Lane V/C Ratio	0.005	-	-	-	0.013	-	-	0.014
HCM Control Delay (s)	8.3	0	-	-	7.2	0	-	8.8
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

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	14	0	7	17	6	0	0	3	17	0	0
Future Vol, veh/h	0	14	0	7	17	6	0	0	3	17	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	60	60	60	60	92	60	92	60	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	0	12	28	7	0	0	5	18	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	35	0	0	23	0	0	79	82	23	82	79	32
Stage 1	-	-	-	-	-	-	23	23	-	56	56	-
Stage 2	-	-	-	-	-	-	56	59	-	26	23	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1589	-	-	1605	-	-	914	812	1060	910	815	1048
Stage 1	-	-	-	-	-	-	1000	880	-	961	852	-
Stage 2	-	-	-	-	-	-	961	850	-	997	880	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1589	-	-	1605	-	-	909	806	1060	900	808	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	909	806	-	900	808	-
Stage 1	-	-	-	-	-	-	1000	880	-	961	845	-
Stage 2	-	-	-	-	-	-	953	843	-	992	880	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			8.4			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1060	1589	-	-	1605	-	-	900
HCM Lane V/C Ratio	0.005	-	-	-	0.007	-	-	0.021
HCM Control Delay (s)	8.4	0	-	-	7.3	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

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	36	0	3	30	9	0	0	2	23	0	0
Future Vol, veh/h	0	36	0	3	30	9	0	0	2	23	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	64	64	64	64	92	64	92	64	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	56	0	5	47	10	0	0	3	25	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	57	0	0	56	0	0	118	123	28	90	118	52
Stage 1	-	-	-	-	-	-	56	56	-	62	62	-
Stage 2	-	-	-	-	-	-	62	67	-	28	56	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1560	-	-	1562	-	-	857	771	1047	895	776	1021
Stage 1	-	-	-	-	-	-	955	852	-	954	847	-
Stage 2	-	-	-	-	-	-	954	843	-	991	852	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1560	-	-	1562	-	-	855	769	1047	891	774	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	769	-	891	774	-
Stage 1	-	-	-	-	-	-	955	852	-	954	844	-
Stage 2	-	-	-	-	-	-	951	840	-	988	852	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			8.4			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1047	1560	-	-	1562	-	-	891
HCM Lane V/C Ratio	0.003	-	-	-	0.003	-	-	0.028
HCM Control Delay (s)	8.4	0	-	-	7.3	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↬			↶↶		↶
Traffic Vol, veh/h	191	0	0	135	0	18
Future Vol, veh/h	191	0	0	135	0	18
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	208	0	0	147	0	20

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	208
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	837
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	837
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

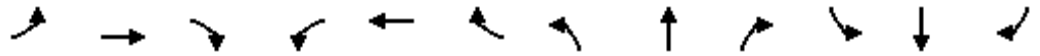
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	837	-	-	-
HCM Lane V/C Ratio	0.023	-	-	-
HCM Control Delay (s)	9.4	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↔		↖	↑	↗	↖	↕	↗
Traffic Volume (veh/h)	9	7	3	97	0	46	4	810	357	446	505	9
Future Volume (veh/h)	9	7	3	97	0	46	4	810	357	446	505	9
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		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	9	7	3	99	0	47	4	827	364	455	515	9
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	28	22	44	119	0	57	13	681	740	687	1360	24
Arrive On Green	0.03	0.03	0.03	0.10	0.00	0.10	0.00	0.24	0.24	0.76	1.00	1.00
Sat Flow, veh/h	1040	809	1610	1180	0	560	1810	1900	1610	1810	1862	33
Grp Volume(v), veh/h	16	0	3	146	0	0	4	827	364	455	0	524
Grp Sat Flow(s),veh/h/ln	1848	0	1610	1740	0	0	1810	1900	1610	1810	0	1894
Q Serve(g_s), s	1.0	0.0	0.2	9.9	0.0	0.0	0.3	43.0	20.5	14.6	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.2	9.9	0.0	0.0	0.3	43.0	20.5	14.6	0.0	0.0
Prop In Lane	0.56		1.00	0.68		0.32	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	51	0	44	176	0	0	13	681	740	687	0	1384
V/C Ratio(X)	0.32	0.00	0.07	0.83	0.00	0.00	0.30	1.21	0.49	0.66	0.00	0.38
Avail Cap(c_a), veh/h	285	0	248	268	0	0	106	681	740	687	0	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.67	0.67	0.67	0.57	0.00	0.57
Uniform Delay (d), s/veh	57.3	0.0	56.9	52.9	0.0	0.0	59.4	45.6	27.3	10.7	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.6	12.2	0.0	0.0	8.4	105.8	1.6	1.4	0.0	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	0.5	0.0	0.1	4.9	0.0	0.0	0.2	41.0	10.4	3.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	0.0	57.5	65.1	0.0	0.0	67.8	151.4	28.9	12.1	0.0	0.5
LnGrp LOS	E	A	E	E	A	A	E	F	C	B	A	A
Approach Vol, veh/h		19			146			1195				979
Approach Delay, s/veh		60.3			65.1			113.8				5.9
Approach LOS		E			E			F				A
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.6	47.0		7.3	4.9	91.7		16.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	24.0	43.0		18.5	7.0	60.0		18.5				
Max Q Clear Time (g_c+I1), s	16.6	45.0		3.0	2.3	2.0		11.9				
Green Ext Time (p_c), s	0.9	0.0		0.0	0.0	3.9		0.4				

Intersection Summary

HCM 6th Ctrl Delay	65.1
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps

Moreno Valley Trade Center

03/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↕	↑			↑	↕
Traffic Volume (veh/h)	487	0	250	0	0	0	175	622	0	0	532	56
Future Volume (veh/h)	487	0	250	0	0	0	175	622	0	0	532	56
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	507	0	260				182	648	0	0	554	58
Peak Hour Factor	0.96	0.92	0.96				0.96	0.96	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	507	0	260				196	934	0	0	665	1275
Arrive On Green	0.44	0.00	0.44				0.22	0.98	0.00	0.00	0.70	0.70
Sat Flow, veh/h	1148	0	589				1810	1900	0	0	1900	1610
Grp Volume(v), veh/h	767	0	0				182	648	0	0	554	58
Grp Sat Flow(s),veh/h/ln	737	0	0				1810	1900	0	0	1900	1610
Q Serve(g_s), s	53.0	0.0	0.0				11.8	2.1	0.0	0.0	25.2	0.4
Cycle Q Clear(g_c), s	53.0	0.0	0.0				11.8	2.1	0.0	0.0	25.2	0.4
Prop In Lane	0.66		0.34				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	767	0	0				196	934	0	0	665	1275
V/C Ratio(X)	1.00	0.00	0.00				0.93	0.69	0.00	0.00	0.83	0.05
Avail Cap(c_a), veh/h	767	0	0				196	934	0	0	665	1275
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh	33.5	0.0	0.0				46.5	0.5	0.0	0.0	15.5	1.2
Incr Delay (d2), s/veh	32.5	0.0	0.0				44.4	4.2	0.0	0.0	11.2	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
%ile BackOfQ(50%),veh	28.5	0.0	0.0				7.1	1.4	0.0	0.0	7.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	0.0	0.0				91.0	4.8	0.0	0.0	26.6	1.3
LnGrp LOS	E	A	A				F	A	A	A	C	A
Approach Vol, veh/h		767						830			612	
Approach Delay, s/veh		66.0						23.7			24.2	
Approach LOS		E						C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		63.0		57.0	17.0	46.0						
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s		59.0		53.0	13.0	42.0						
Max Q Clear Time (g_c+I1), s		4.1		55.0	13.8	27.2						
Green Ext Time (p_c), s		5.3		0.0	0.0	3.4						
Intersection Summary												
HCM 6th Ctrl Delay											38.5	
HCM 6th LOS											D	

Intersection						
Intersection Delay, s/veh10.4						
Intersection LOS B						
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	223	437		590	872	
Demand Flow Rate, veh/h	223	437		590	872	
Vehicles Circulating, veh/h	893	742		254	163	
Vehicles Exiting, veh/h	142	102		862	1016	
Ped Vol Crossing Leg, #/h	0	0		0	0	
Ped Cap Adj	1.000	1.000		1.000	1.000	
Approach Delay, s/veh	12.8	9.9		10.3	10.2	
Approach LOS	B	A		B	B	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.272	0.728	1.000	0.890	0.110
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	223	119	318	590	776	96
Cap Entry Lane, veh/h	555	723	723	1065	1224	1224
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	223	119	318	590	776	96
Cap Entry, veh/h	555	723	723	1065	1224	1224
V/C Ratio	0.402	0.165	0.440	0.554	0.634	0.078
Control Delay, s/veh	12.8	6.8	11.0	10.3	11.1	3.6
LOS	B	A	B	B	B	A
95th %tile Queue, veh	2	1	2	4	5	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	13	0	562	814	6
Future Vol, veh/h	0	13	0	562	814	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	14	0	611	885	7

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	889	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.2	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	345	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	345	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 345	-	-
HCM Lane V/C Ratio	- 0.041	-	-
HCM Control Delay (s)	- 15.9	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	13	0	562	802	25
Future Vol, veh/h	0	13	0	562	802	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	14	0	611	872	27

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	886	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.2	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	346	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	346	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 346	-	-
HCM Lane V/C Ratio	- 0.041	-	-
HCM Control Delay (s)	- 15.8	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	51	9	10	513	771	28
Future Vol, veh/h	51	9	10	513	771	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
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	53	9	10	534	803	29

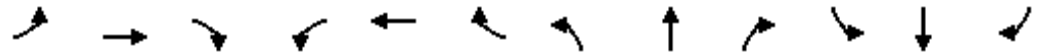
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1372	818	832	0	-	0
Stage 1	818	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	163	379	809	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	160	379	809	-	-	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	580	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	34.8	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	809	-	160	379	-	-
HCM Lane V/C Ratio	0.013	-	0.332	0.025	-	-
HCM Control Delay (s)	9.5	0	38.3	14.7	-	-
HCM Lane LOS	A	A	E	B	-	-
HCM 95th %tile Q(veh)	0	-	1.4	0.1	-	-

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center
 10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖		↖		↑↑	↖		↑↑	↖
Traffic Volume (veh/h)	0	0	0	324	0	11	0	588	615	0	621	149
Future Volume (veh/h)	0	0	0	324	0	11	0	588	615	0	621	149
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				324	0	11	0	588	0	0	621	149
Peak Hour Factor				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
Cap, veh/h				0	0	0	0	3490		0	3490	1556
Arrive On Green				0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.97	0.97
Sat Flow, veh/h					0		0	3705	1610	0	3705	1610
Grp Volume(v), veh/h					0.0		0	588	0	0	621	149
Grp Sat Flow(s),veh/h/ln							0	1805	1610	0	1805	1610
Q Serve(g_s), s							0.0	14.1	0.0	0.0	0.8	0.4
Cycle Q Clear(g_c), s							0.0	14.1	0.0	0.0	0.8	0.4
Prop In Lane							0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h							0	3490		0	3490	1556
V/C Ratio(X)							0.00	0.17		0.00	0.18	0.10
Avail Cap(c_a), veh/h							0	3490		0	3490	1556
HCM Platoon Ratio							1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)							0.00	0.75	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh							0.0	6.2	0.0	0.0	0.1	0.1
Incr Delay (d2), s/veh							0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	2.1	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	6.2	0.0	0.0	0.2	0.2
LnGrp LOS							A	A		A	A	A
Approach Vol, veh/h								588	A		770	
Approach Delay, s/veh								6.2			0.2	
Approach LOS								A			A	
Timer - Assigned Phs		2				6						
Phs Duration (G+Y+Rc), s		120.0				120.0						
Change Period (Y+Rc), s		4.0				4.0						
Max Green Setting (Gmax), s		53.0				53.0						
Max Q Clear Time (g_c+I1), s		16.1				2.8						
Green Ext Time (p_c), s		4.5				5.5						
Intersection Summary												
HCM 6th Ctrl Delay				2.8								
HCM 6th LOS				A								
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	12	562	0	0	0	0	944	386	88	856	0
Future Volume (veh/h)	258	12	562	0	0	0	0	944	386	88	856	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	176	0	658				0	944	386	88	856	0
Peak Hour Factor	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
Cap, veh/h	424	0	754				0	1772	790	317	2524	0
Arrive On Green	0.23	0.00	0.23				0.00	0.98	0.98	0.35	1.00	0.00
Sat Flow, veh/h	1810	0	3220				0	3705	1610	1810	3705	0
Grp Volume(v), veh/h	176	0	658				0	944	386	88	856	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1810	1805	0
Q Serve(g_s), s	9.9	0.0	23.6				0.0	1.2	1.0	4.2	0.0	0.0
Cycle Q Clear(g_c), s	9.9	0.0	23.6				0.0	1.2	1.0	4.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	424	0	754				0	1772	790	317	2524	0
V/C Ratio(X)	0.42	0.00	0.87				0.00	0.53	0.49	0.28	0.34	0.00
Avail Cap(c_a), veh/h	528	0	939				0	1772	790	317	2524	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.88	0.88	0.91	0.91	0.00
Uniform Delay (d), s/veh	39.0	0.0	44.2				0.0	0.6	0.6	33.5	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	7.7				0.0	1.0	1.9	2.0	0.3	0.0
Initial Q Delay(d3),s/veh	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	10.2				0.0	0.5	0.6	1.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	51.9				0.0	1.6	2.5	35.5	0.3	0.0
LnGrp LOS	D	A	D				A	A	A	D	A	A
Approach Vol, veh/h		834						1330			944	
Approach Delay, s/veh		49.3						1.8			3.6	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	35.0	62.9	32.1	87.9								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	21.0	52.0	35.0	77.0								
Max Q Clear Time (g_c+1), s	10.2	3.2	25.6	2.0								
Green Ext Time (p_c), s	0.2	10.9	2.5	7.6								

Intersection Summary

HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	449	170	133	46	193	122	166	760	67	243	758	432
Future Volume (veh/h)	449	170	133	46	193	122	166	760	67	243	758	432
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		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	449	170	133	46	193	122	166	760	67	243	758	432
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	529	219	185	245	360	161	226	2730	848	315	2862	888
Arrive On Green	0.15	0.12	0.12	0.14	0.10	0.10	0.06	0.53	0.53	0.09	0.55	0.55
Sat Flow, veh/h	3510	1900	1610	1810	3610	1610	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	449	170	133	46	193	122	166	760	67	243	758	432
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1805	1610	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	14.9	10.4	8.1	2.7	6.1	8.9	5.6	9.8	1.4	8.1	9.2	19.7
Cycle Q Clear(g_c), s	14.9	10.4	8.1	2.7	6.1	8.9	5.6	9.8	1.4	8.1	9.2	19.7
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	529	219	185	245	360	161	226	2730	848	315	2862	888
V/C Ratio(X)	0.85	0.78	0.72	0.19	0.54	0.76	0.73	0.28	0.08	0.77	0.26	0.49
Avail Cap(c_a), veh/h	761	586	496	245	632	282	351	2730	848	673	2862	888
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)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	49.6	51.6	37.2	46.0	51.4	52.6	55.1	15.8	4.6	53.4	14.1	16.5
Incr Delay (d2), s/veh	5.9	5.5	4.8	0.4	1.2	7.2	4.6	0.3	0.2	3.7	0.2	1.8
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	0.0
%ile BackOfQ(50%),veh/ln	7.0	5.3	3.5	1.2	2.8	3.9	2.6	3.9	0.9	3.7	3.6	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	57.1	42.0	46.4	52.6	59.8	59.7	16.0	4.8	57.1	14.3	18.2
LnGrp LOS	E	E	D	D	D	E	E	B	A	E	B	B
Approach Vol, veh/h		752			361			993			1433	
Approach Delay, s/veh		53.5			54.2			22.6			22.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	67.2	20.3	17.8	11.7	70.2	22.1	16.0				
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	23.0	34.0	10.0	37.0	12.0	45.0	26.0	21.0				
Max Q Clear Time (g_c+10), s	11.0	11.8	4.7	12.4	7.6	21.7	16.9	10.9				
Green Ext Time (p_c), s	0.7	5.7	0.0	1.4	0.2	7.4	1.2	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			32.4									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	314	63	14	362	3	37	2	16	0	1	5
Future Vol, veh/h	12	314	63	14	362	3	37	2	16	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	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	12	314	63	14	362	3	37	2	16	0	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	365	0	0	377	0	0	548	731	157	572	791	181
Stage 1	-	-	-	-	-	-	338	338	-	390	390	-
Stage 2	-	-	-	-	-	-	210	393	-	182	401	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1205	-	-	1193	-	-	424	351	867	407	324	837
Stage 1	-	-	-	-	-	-	656	644	-	611	611	-
Stage 2	-	-	-	-	-	-	778	609	-	808	604	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1205	-	-	1193	-	-	413	343	867	392	317	837
Mov Cap-2 Maneuver	-	-	-	-	-	-	504	436	-	392	317	-
Stage 1	-	-	-	-	-	-	649	638	-	605	604	-
Stage 2	-	-	-	-	-	-	763	602	-	783	598	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			11.7			10.5		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	504	781	1205	-	-	1193	-	-	657
HCM Lane V/C Ratio	0.073	0.023	0.01	-	-	0.012	-	-	0.009
HCM Control Delay (s)	12.7	9.7	8	-	-	8.1	-	-	10.5
HCM Lane LOS	B	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	2	205	0	0	336	0	0	0	0	2	0	0
Future Vol, veh/h	2	205	0	0	336	0	0	0	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
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	2	205	0	0	336	0	0	0	0	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	336	0	0	205	0	0	377	545	103	443	545	168
Stage 1	-	-	-	-	-	-	209	209	-	336	336	-
Stage 2	-	-	-	-	-	-	168	336	-	107	209	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1235	-	-	1378	-	-	560	449	938	503	449	853
Stage 1	-	-	-	-	-	-	779	733	-	657	645	-
Stage 2	-	-	-	-	-	-	823	645	-	893	733	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1235	-	-	1378	-	-	559	448	938	502	448	853
Mov Cap-2 Maneuver	-	-	-	-	-	-	619	514	-	559	515	-
Stage 1	-	-	-	-	-	-	777	732	-	656	645	-
Stage 2	-	-	-	-	-	-	823	645	-	892	732	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	11.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1235	-	-	1378	-	-	559
HCM Lane V/C Ratio	-	0.002	-	-	-	-	-	0.004
HCM Control Delay (s)		0	7.9	-	-	0	-	11.5
HCM Lane LOS		A	A	-	-	A	-	B
HCM 95th %tile Q(veh)		-	0	-	-	0	-	0

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	102	2	4	154	0	1	0	6	0	0	0
Future Vol, veh/h	0	102	2	4	154	0	1	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	102	2	4	154	0	1	0	6	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	154	0	0	104	0	0	188	265	52	213	266	77
Stage 1	-	-	-	-	-	-	103	103	-	162	162	-
Stage 2	-	-	-	-	-	-	85	162	-	51	104	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1511	-	-	1500	-	-	*861	702	1011	826	701	*1052
Stage 1	-	-	-	-	-	-	*897	814	-	915	818	-
Stage 2	-	-	-	-	-	-	*992	818	-	962	813	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1511	-	-	1500	-	-	*859	700	1011	819	699	*1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	*859	700	-	819	699	-
Stage 1	-	-	-	-	-	-	*897	814	-	915	816	-
Stage 2	-	-	-	-	-	-	*989	816	-	956	813	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	8.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	986	1511	-	-	1500	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-	0.003	-	-	-
HCM Control Delay (s)	8.7	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Traffic Vol, veh/h	0	102	0	0	154	0	1	0	18	0	0	0
Future Vol, veh/h	0	102	0	0	154	0	1	0	18	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	102	0	0	154	0	1	0	18	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	154	0	0	102	0	0	179	256	51	205	256	77
Stage 1	-	-	-	-	-	-	102	102	-	154	154	-
Stage 2	-	-	-	-	-	-	77	154	-	51	102	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1511	-	-	1503	-	-	*874	711	1013	837	711	*1052
Stage 1	-	-	-	-	-	-	*899	815	-	925	825	-
Stage 2	-	-	-	-	-	-	*992	825	-	962	815	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1511	-	-	1503	-	-	*874	711	1013	822	711	*1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	*874	711	-	822	711	-
Stage 1	-	-	-	-	-	-	*899	815	-	925	825	-
Stage 2	-	-	-	-	-	-	*992	825	-	945	815	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.7			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1005	1511	-	-	1503	-	-	-
HCM Lane V/C Ratio	0.019	-	-	-	-	-	-	-
HCM Control Delay (s)	8.7	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

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	102	0	1	154	0	0	0	6	0	0	0
Future Vol, veh/h	0	102	0	1	154	0	0	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	-
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	102	0	1	154	0	0	0	6	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	154	0	0	102	0	0	181	258	51	207	258	77
Stage 1	-	-	-	-	-	-	102	102	-	156	156	-
Stage 2	-	-	-	-	-	-	79	156	-	51	102	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1511	-	-	1503	-	-	*871	709	1013	834	709	*1052
Stage 1	-	-	-	-	-	-	*899	815	-	923	823	-
Stage 2	-	-	-	-	-	-	*992	823	-	962	815	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1511	-	-	1503	-	-	*871	708	1013	829	708	*1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	*871	708	-	829	708	-
Stage 1	-	-	-	-	-	-	*899	815	-	923	822	-
Stage 2	-	-	-	-	-	-	*992	822	-	956	815	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1013	1511	-	-	1503	-	-	-
HCM Lane V/C Ratio	0.006	-	-	-	0.001	-	-	-
HCM Control Delay (s)	8.6	0	-	-	7.4	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	205	0	0	336	0	0
Future Vol, veh/h	205	0	0	336	0	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	205	0	0	336	0	0

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	103
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	938
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	938
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔	↗		↑↑	↗		↑↑	↗
Traffic Volume (veh/h)	0	0	0	261	0	117	0	672	333	0	674	464
Future Volume (veh/h)	0	0	0	261	0	117	0	672	333	0	674	464
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				297	0	78	0	672	0	0	674	464
Peak Hour Factor				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
Cap, veh/h				388	0	172	0	2983		0	2983	1330
Arrive On Green				0.11	0.00	0.11	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h				3619	0	1610	0	3705	1610	0	3705	1610
Grp Volume(v), veh/h				297	0	78	0	672	0	0	674	464
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1805	1610	0	1805	1610
Q Serve(g_s), s				9.6	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				9.6	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				388	0	172	0	2983		0	2983	1330
V/C Ratio(X)				0.77	0.00	0.45	0.00	0.23		0.00	0.23	0.35
Avail Cap(c_a), veh/h				1025	0	456	0	2983		0	2983	1330
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.94	0.00	0.00	0.89	0.89
Uniform Delay (d), s/veh				52.1	0.0	50.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				3.2	0.0	1.8	0.0	0.2	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln				4.5	0.0	2.3	0.0	0.1	0.0	0.0	0.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.3	0.0	52.1	0.0	0.2	0.0	0.0	0.2	0.6
LnGrp LOS				E	A	D	A	A		A	A	A
Approach Vol, veh/h					375			672	A		1138	
Approach Delay, s/veh					54.6			0.2			0.4	
Approach LOS					D			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		103.1				103.1		16.9				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		78.0				78.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0				2.0		11.6				
Green Ext Time (p_c), s		5.5				8.0		1.3				

Intersection Summary

HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	0	313	0	0	0	0	777	158	0	874	61
Future Volume (veh/h)	228	0	313	0	0	0	0	777	158	0	874	61
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	339	0	194				0	777	158	0	874	0
Peak Hour Factor	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
Cap, veh/h	539	0	240				0	2831	1263	0	2831	
Arrive On Green	0.15	0.00	0.15				0.00	0.78	0.78	0.00	0.78	0.00
Sat Flow, veh/h	3619	0	1610				0	3705	1610	0	3705	1610
Grp Volume(v), veh/h	339	0	194				0	777	158	0	874	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	0	1805	1610
Q Serve(g_s), s	10.6	0.0	14.0				0.0	7.1	2.8	0.0	8.3	0.0
Cycle Q Clear(g_c), s	10.6	0.0	14.0				0.0	7.1	2.8	0.0	8.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	539	0	240				0	2831	1263	0	2831	
V/C Ratio(X)	0.63	0.00	0.81				0.00	0.27	0.13	0.00	0.31	
Avail Cap(c_a), veh/h	1237	0	550				0	2831	1263	0	2831	
HCM Platoon Ratio	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				0.00	1.00	1.00	0.00	0.96	0.00
Uniform Delay (d), s/veh	47.9	0.0	49.4				0.0	3.6	3.1	0.0	3.7	0.0
Incr Delay (d2), s/veh	1.2	0.0	6.4				0.0	0.2	0.2	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	6.0				0.0	2.2	0.8	0.0	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	0.0	55.8				0.0	3.8	3.3	0.0	4.0	0.0
LnGrp LOS	D	A	E				A	A	A	A	A	
Approach Vol, veh/h	533						935			874		
Approach Delay, s/veh	51.6						3.7			4.0		
Approach LOS	D						A			A		
Timer - Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	98.1		21.9		98.1							
Change Period (Y+Rc), s	4.0		4.0		4.0							
Max Green Setting (Gmax), s	71.0		41.0		71.0							
Max Q Clear Time (g_c+I1), s	9.1		16.0		10.3							
Green Ext Time (p_c), s	7.3		1.9		7.8							

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection									
Intersection Delay, s/veh 8.6									
Intersection LOS A									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	205		425		782		1188		
Demand Flow Rate, veh/h	205		425		782		1188		
Vehicles Circulating, veh/h	1046		704		415		194		
Vehicles Exiting, veh/h	336		493		836		935		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	9.1		8.6		8.3		8.8		
Approach LOS	A		A		A		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	LTR	LT	R	LT	TR	LT	TR	
Assumed Moves	L	TR	LT	R	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.312	0.688	0.315	0.685	0.471	0.529	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	64	141	134	291	368	414	558	630	
Cap Entry Lane, veh/h	516	584	706	781	921	998	1129	1204	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	0.999	1.001	1.001	0.999	
Flow Entry, veh/h	64	141	134	291	368	414	558	630	
Cap Entry, veh/h	516	584	706	781	920	999	1130	1204	
V/C Ratio	0.124	0.242	0.190	0.373	0.399	0.415	0.494	0.523	
Control Delay, s/veh	8.6	9.3	7.2	9.2	8.5	8.2	8.7	8.8	
LOS	A	A	A	A	A	A	A	A	
95th %tile Queue, veh	0	1	1	2	2	2	3	3	

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	0	0	782	836	0
Future Vol, veh/h	0	0	0	782	836	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	0	0	782	836	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	418	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	589	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	589	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	0	0	782	836	0
Future Vol, veh/h	0	0	0	782	836	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	0	0	782	836	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	418	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	589	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	589	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th Signalized Intersection Summary
 Int.15: Redlands Blvd & Encilia Ave

Moreno Valley Trade Center
 10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	16	2	25	38	80	2	658	29	97	552	114
Future Volume (veh/h)	84	16	2	25	38	80	2	658	29	97	552	114
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		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	84	16	2	25	38	80	2	658	29	97	552	114
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	109	311	38	62	127	113	7	2311	102	124	2601	1160
Arrive On Green	0.06	0.10	0.10	0.03	0.07	0.07	0.01	1.00	1.00	0.07	0.72	0.72
Sat Flow, veh/h	1810	3237	397	1810	1805	1610	1810	3522	155	1810	3610	1610
Grp Volume(v), veh/h	84	9	9	25	38	80	2	337	350	97	552	114
Grp Sat Flow(s),veh/h/ln	1810	1805	1829	1810	1805	1610	1810	1805	1872	1810	1805	1610
Q Serve(g_s), s	5.0	0.5	0.5	1.5	2.2	5.3	0.1	0.0	0.0	5.8	5.5	2.3
Cycle Q Clear(g_c), s	5.0	0.5	0.5	1.5	2.2	5.3	0.1	0.0	0.0	5.8	5.5	2.3
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	109	174	176	62	127	113	7	1184	1228	124	2601	1160
V/C Ratio(X)	0.77	0.05	0.05	0.41	0.30	0.71	0.29	0.28	0.28	0.78	0.21	0.10
Avail Cap(c_a), veh/h	280	459	465	148	328	293	263	1184	1228	263	2601	1160
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	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	45.1	45.2	52.0	48.6	50.0	54.4	0.0	0.0	50.4	5.1	4.6
Incr Delay (d2), s/veh	11.1	0.1	0.1	4.3	1.3	7.9	21.9	0.6	0.6	10.4	0.2	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	0.2	0.2	0.7	1.0	2.4	0.1	0.2	0.2	3.0	1.9	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.0	45.3	45.3	56.3	49.9	57.9	76.3	0.6	0.6	60.8	5.3	4.8
LnGrp LOS	E	D	D	E	D	E	E	A	A	E	A	A
Approach Vol, veh/h		102			143			689			763	
Approach Delay, s/veh		59.1			55.5			0.8			12.2	
Approach LOS		E			E			A			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	76.2	7.7	14.6	4.4	83.3	10.6	11.7				
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	16.0	41.0	9.0	28.0	16.0	41.0	17.0	20.0				
Max Q Clear Time (g_c+I1), s	7.8	2.0	3.5	2.5	2.1	7.5	7.0	7.3				
Green Ext Time (p_c), s	0.1	4.8	0.0	0.0	0.0	4.6	0.1	0.4				

Intersection Summary

HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center
 10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶		↷		↶↷	↷		↶↷	↷
Traffic Volume (veh/h)	0	0	0	405	0	57	0	764	769	0	596	132
Future Volume (veh/h)	0	0	0	405	0	57	0	764	769	0	596	132
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				405	0	57	0	764	0	0	596	132
Peak Hour Factor				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
Cap, veh/h				0	0	0	0	3490		0	3490	1556
Arrive On Green				0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.97	0.97
Sat Flow, veh/h					0		0	3705	1610	0	3705	1610
Grp Volume(v), veh/h					0.0		0	764	0	0	596	132
Grp Sat Flow(s),veh/h/ln							0	1805	1610	0	1805	1610
Q Serve(g_s), s							0.0	1.1	0.0	0.0	0.8	0.4
Cycle Q Clear(g_c), s							0.0	1.1	0.0	0.0	0.8	0.4
Prop In Lane							0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h							0	3490		0	3490	1556
V/C Ratio(X)							0.00	0.22		0.00	0.17	0.08
Avail Cap(c_a), veh/h							0	3490		0	3490	1556
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	0.58	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh							0.0	0.1	0.0	0.0	0.1	0.1
Incr Delay (d2), s/veh							0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	0.0	0.0	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	0.2	0.0	0.0	0.2	0.2
LnGrp LOS							A	A		A	A	A
Approach Vol, veh/h								764	A		728	
Approach Delay, s/veh								0.2			0.2	
Approach LOS								A			A	
Timer - Assigned Phs		2				6						
Phs Duration (G+Y+Rc), s		120.0				120.0						
Change Period (Y+Rc), s		4.0				4.0						
Max Green Setting (Gmax), s		53.0				53.0						
Max Q Clear Time (g_c+I1), s		3.1				2.8						
Green Ext Time (p_c), s		6.4				5.2						

Intersection Summary

HCM 6th Ctrl Delay	0.2
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	8	778	0	0	0	0	1184	574	90	910	0
Future Volume (veh/h)	350	8	778	0	0	0	0	1184	574	90	910	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	236	0	905				0	1184	574	90	910	0
Peak Hour Factor	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
Cap, veh/h	548	0	975				0	1596	712	280	2276	0
Arrive On Green	0.30	0.00	0.30				0.00	0.59	0.59	0.21	0.84	0.00
Sat Flow, veh/h	1810	0	3220				0	3705	1610	1810	3705	0
Grp Volume(v), veh/h	236	0	905				0	1184	574	90	910	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1810	1805	0
Q Serve(g_s), s	12.5	0.0	32.7				0.0	28.8	33.5	5.1	7.4	0.0
Cycle Q Clear(g_c), s	12.5	0.0	32.7				0.0	28.8	33.5	5.1	7.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	548	0	975				0	1596	712	280	2276	0
V/C Ratio(X)	0.43	0.00	0.93				0.00	0.74	0.81	0.32	0.40	0.00
Avail Cap(c_a), veh/h	573	0	1020				0	1596	712	280	2276	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.33	1.33	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.73	0.73	0.88	0.88	0.00
Uniform Delay (d), s/veh	33.5	0.0	40.6				0.0	19.7	20.7	42.3	4.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	13.7				0.0	2.3	7.1	2.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	14.7				0.0	10.9	12.2	2.4	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	54.3				0.0	22.0	27.8	44.9	4.6	0.0
LnGrp LOS	C	A	D				A	C	C	D	A	A
Approach Vol, veh/h		1141						1758			1000	
Approach Delay, s/veh		50.1						23.9			8.3	
Approach LOS		D						C			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	32.6	57.1	40.3	79.7								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	10.6	51.4	38.0	74.0								
Max Q Clear Time (g_c+1), s	17.5	35.5	34.7	9.4								
Green Ext Time (p_c), s	0.1	9.8	1.7	8.3								

Intersection Summary

HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
 10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	713	272	235	89	214	326	236	719	36	268	963	502
Future Volume (veh/h)	713	272	235	89	214	326	236	719	36	268	963	502
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		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	713	272	235	89	214	326	236	719	36	268	963	502
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	783	338	286	485	804	359	454	1687	524	336	1513	470
Arrive On Green	0.22	0.18	0.18	0.27	0.22	0.22	0.13	0.33	0.33	0.10	0.29	0.29
Sat Flow, veh/h	3510	1900	1610	1810	3610	1610	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	713	272	235	89	214	326	236	719	36	268	963	502
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1805	1610	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	23.8	16.5	16.9	4.5	5.9	23.7	7.5	13.0	0.9	9.0	19.4	20.7
Cycle Q Clear(g_c), s	23.8	16.5	16.9	4.5	5.9	23.7	7.5	13.0	0.9	9.0	19.4	20.7
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	783	338	286	485	804	359	454	1687	524	336	1513	470
V/C Ratio(X)	0.91	0.80	0.82	0.18	0.27	0.91	0.52	0.43	0.07	0.80	0.64	1.07
Avail Cap(c_a), veh/h	848	728	617	485	903	403	454	1687	524	527	1513	470
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)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	45.5	47.3	47.5	33.8	38.5	45.4	48.8	31.7	7.1	53.1	37.0	14.9
Incr Delay (d2), s/veh	10.5	3.4	4.4	0.2	0.2	22.6	1.1	0.8	0.3	4.0	1.8	58.2
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	11.4	8.1	7.1	2.0	2.6	11.7	3.4	5.6	0.7	4.1	8.4	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	50.7	51.9	34.0	38.7	68.1	49.8	32.5	7.4	57.1	38.7	73.1
LnGrp LOS	E	D	D	C	D	E	D	C	A	E	D	F
Approach Vol, veh/h		1220			629			991			1733	
Approach Delay, s/veh		54.0			53.2			35.7			51.5	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.5	43.0	36.1	25.3	19.5	39.0	30.8	30.7				
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	13.0	27.0	13.0	46.0	10.0	35.0	29.0	30.0				
Max Q Clear Time (g_c+M), s	11.0	15.0	6.5	18.9	9.5	22.7	25.8	25.7				
Green Ext Time (p_c), s	0.5	4.0	0.1	2.5	0.0	6.8	1.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	49.0
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	578	44	17	505	1	84	6	9	0	6	20
Future Vol, veh/h	16	578	44	17	505	1	84	6	9	0	6	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	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	578	44	17	505	1	84	6	9	0	6	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	506	0	0	622	0	0	900	1150	289	863	1193	253
Stage 1	-	-	-	-	-	-	610	610	-	539	539	-
Stage 2	-	-	-	-	-	-	290	540	-	324	654	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1069	-	-	969	-	-	237	200	714	252	188	753
Stage 1	-	-	-	-	-	-	453	488	-	499	525	-
Stage 2	-	-	-	-	-	-	699	524	-	668	466	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1069	-	-	969	-	-	219	193	714	239	182	753
Mov Cap-2 Maneuver	-	-	-	-	-	-	335	312	-	239	182	-
Stage 1	-	-	-	-	-	-	446	481	-	492	516	-
Stage 2	-	-	-	-	-	-	661	515	-	642	459	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			18.3			13.8		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	335	471	1069	-	-	969	-	-	437
HCM Lane V/C Ratio	0.251	0.032	0.015	-	-	0.018	-	-	0.059
HCM Control Delay (s)	19.3	12.9	8.4	-	-	8.8	-	-	13.8
HCM Lane LOS	C	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1	0.1	0	-	-	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	0	440	0	0	311	0	0	0	0	0	0	0
Future Vol, veh/h	0	440	0	0	311	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
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	440	0	0	311	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	311	0	0	440	0	0	596	751	220	531	751	156
Stage 1	-	-	-	-	-	-	440	440	-	311	311	-
Stage 2	-	-	-	-	-	-	156	311	-	220	440	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1261	-	-	1131	-	-	392	342	790	436	342	868
Stage 1	-	-	-	-	-	-	571	581	-	680	662	-
Stage 2	-	-	-	-	-	-	836	662	-	768	581	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1261	-	-	1131	-	-	392	342	790	436	342	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	474	437	-	526	437	-
Stage 1	-	-	-	-	-	-	571	581	-	680	662	-
Stage 2	-	-	-	-	-	-	836	662	-	768	581	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			0			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1261	-	-	1131	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	333	0	13	216	0	0	0	3	0	0	0
Future Vol, veh/h	0	333	0	13	216	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	333	0	13	216	0	0	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	216	0	0	333	0	0	467	575	167	409	575	108
Stage 1	-	-	-	-	-	-	333	333	-	242	242	-
Stage 2	-	-	-	-	-	-	134	242	-	167	333	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1459	-	-	1238	-	-	*564	480	854	623	480	*1038
Stage 1	-	-	-	-	-	-	*660	647	-	851	772	-
Stage 2	-	-	-	-	-	-	*979	772	-	824	647	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1459	-	-	1238	-	-	*559	474	854	615	474	*1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	*559	474	-	615	474	-
Stage 1	-	-	-	-	-	-	*660	647	-	851	763	-
Stage 2	-	-	-	-	-	-	*967	763	-	821	647	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	9.2	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	854	1459	-	-	1238	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-	0.011	-	-	-
HCM Control Delay (s)	9.2	0	-	-	7.9	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	333	0	7	216	0	0	0	3	0	0	0
Future Vol, veh/h	0	333	0	7	216	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	333	0	7	216	0	0	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	216	0	0	333	0	0	455	563	167	397	563	108
Stage 1	-	-	-	-	-	-	333	333	-	230	230	-
Stage 2	-	-	-	-	-	-	122	230	-	167	333	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1459	-	-	1238	-	-	*576	487	854	635	487	*1038
Stage 1	-	-	-	-	-	-	*660	647	-	865	782	-
Stage 2	-	-	-	-	-	-	*979	782	-	824	647	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1459	-	-	1238	-	-	*573	484	854	630	484	*1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	*573	484	-	630	484	-
Stage 1	-	-	-	-	-	-	*660	647	-	865	777	-
Stage 2	-	-	-	-	-	-	*973	777	-	821	647	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			9.2			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	854	1459	-	-	1238	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-	0.006	-	-	-
HCM Control Delay (s)	9.2	0	-	-	7.9	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔			↔	
Traffic Vol, veh/h	0	333	0	3	216	0	0	0	2	0	0	0
Future Vol, veh/h	0	333	0	3	216	0	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	-
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	333	0	3	216	0	0	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	216	0	0	333	0	0	447	555	167	389	555	108
Stage 1	-	-	-	-	-	-	333	333	-	222	222	-
Stage 2	-	-	-	-	-	-	114	222	-	167	333	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1459	-	-	1238	-	-	*584	493	854	644	493	*1038
Stage 1	-	-	-	-	-	-	*660	647	-	874	789	-
Stage 2	-	-	-	-	-	-	*979	789	-	824	647	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1459	-	-	1238	-	-	*582	492	854	641	492	*1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	*582	492	-	641	492	-
Stage 1	-	-	-	-	-	-	*660	647	-	874	787	-
Stage 2	-	-	-	-	-	-	*977	787	-	822	647	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			9.2			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	854	1459	-	-	1238	-	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.002	-	-	-
HCM Control Delay (s)	9.2	0	-	-	7.9	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	440	0	0	311	0	0
Future Vol, veh/h	440	0	0	311	0	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	440	0	0	311	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	220
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	-	0	790
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	790
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th Signalized Intersection Summary
Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center
10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔	↗		↑↑	↗		↑↑	↗
Traffic Volume (veh/h)	0	0	0	265	0	68	0	1030	280	0	672	475
Future Volume (veh/h)	0	0	0	265	0	68	0	1030	280	0	672	475
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				286	0	45	0	1030	0	0	672	475
Peak Hour Factor				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
Cap, veh/h				404	0	180	0	2871		0	2871	1281
Arrive On Green				0.11	0.00	0.11	0.00	0.80	0.00	0.00	0.80	0.80
Sat Flow, veh/h				3619	0	1610	0	3705	1610	0	3705	1610
Grp Volume(v), veh/h				286	0	45	0	1030	0	0	672	475
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1805	1610	0	1805	1610
Q Serve(g_s), s				6.6	0.0	2.2	0.0	7.0	0.0	0.0	4.0	7.4
Cycle Q Clear(g_c), s				6.6	0.0	2.2	0.0	7.0	0.0	0.0	4.0	7.4
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				404	0	180	0	2871		0	2871	1281
V/C Ratio(X)				0.71	0.00	0.25	0.00	0.36		0.00	0.23	0.37
Avail Cap(c_a), veh/h				1094	0	487	0	2871		0	2871	1281
HCM Platoon Ratio				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	0.00	0.89	0.00	0.00	0.91	0.91
Uniform Delay (d), s/veh				36.9	0.0	34.9	0.0	2.5	0.0	0.0	2.2	2.6
Incr Delay (d2), s/veh				2.3	0.0	0.7	0.0	0.3	0.0	0.0	0.2	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.0	0.0	0.9	0.0	1.6	0.0	0.0	0.9	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.1	0.0	35.6	0.0	2.8	0.0	0.0	2.4	3.3
LnGrp LOS				D	A	D	A	A		A	A	A
Approach Vol, veh/h					331			1030	A		1147	
Approach Delay, s/veh					38.7			2.8			2.8	
Approach LOS					D			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		72.4				72.4		13.6				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		52.5				52.5		26.0				
Max Q Clear Time (g_c+I1), s		9.0				9.4		8.6				
Green Ext Time (p_c), s		9.6				7.8		1.0				

Intersection Summary

HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	511	0	472	0	0	0	0	799	159	0	878	59
Future Volume (veh/h)	511	0	472	0	0	0	0	799	159	0	878	59
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	658	0	315				0	799	159	0	878	0
Peak Hour Factor	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
Cap, veh/h	850	0	378				0	2521	1125	0	2521	
Arrive On Green	0.23	0.00	0.23				0.00	0.70	0.70	0.00	0.70	0.00
Sat Flow, veh/h	3619	0	1610				0	3705	1610	0	3705	1610
Grp Volume(v), veh/h	658	0	315				0	799	159	0	878	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	0	1805	1610
Q Serve(g_s), s	20.4	0.0	22.3				0.0	10.3	4.0	0.0	11.6	0.0
Cycle Q Clear(g_c), s	20.4	0.0	22.3				0.0	10.3	4.0	0.0	11.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	850	0	378				0	2521	1125	0	2521	
V/C Ratio(X)	0.77	0.00	0.83				0.00	0.32	0.14	0.00	0.35	
Avail Cap(c_a), veh/h	1568	0	698				0	2521	1125	0	2521	
HCM Platoon Ratio	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				0.00	1.00	1.00	0.00	0.97	0.00
Uniform Delay (d), s/veh	42.9	0.0	43.7				0.0	7.0	6.1	0.0	7.2	0.0
Incr Delay (d2), s/veh	1.5	0.0	4.8				0.0	0.3	0.3	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	9.4				0.0	3.8	1.3	0.0	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	0.0	48.5				0.0	7.3	6.3	0.0	7.6	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	
Approach Vol, veh/h	973						958			878		
Approach Delay, s/veh	45.8						7.2			7.6		
Approach LOS	D						A			A		
Timer - Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	87.8		32.2		87.8							
Change Period (Y+Rc), s	4.0		4.0		4.0							
Max Green Setting (Gmax), s	60.0		52.0		48.0							
Max Q Clear Time (g_c+I1), s	12.3		24.3		13.6							
Green Ext Time (p_c), s	7.5		3.9		7.4							

Intersection Summary

HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection									
Intersection Delay, s/veh16.1									
Intersection LOS C									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	440		619		1050		1350		
Demand Flow Rate, veh/h	440		619		1050		1350		
Vehicles Circulating, veh/h	1333		633		604		294		
Vehicles Exiting, veh/h	311		1021		1169		958		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	38.5		10.0		15.4		12.1		
Approach LOS	E		B		C		B		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	LTR	LT	R	LT	TR	LT	TR	
Assumed Moves	L	TR	LT	R	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.120	0.880	0.333	0.667	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	53	387	206	413	494	556	634	716	
Cap Entry Lane, veh/h	396	457	754	829	774	850	1030	1106	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	0.999	1.001	1.001	0.999	
Flow Entry, veh/h	53	387	206	413	494	556	634	716	
Cap Entry, veh/h	396	457	754	829	774	851	1031	1105	
V/C Ratio	0.134	0.846	0.273	0.498	0.638	0.654	0.616	0.647	
Control Delay, s/veh	11.2	42.3	7.9	11.1	15.7	15.1	12.0	12.3	
LOS	B	E	A	B	C	C	B	B	
95th %tile Queue, veh	0	8	1	3	5	5	4	5	

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	0	0	1050	1169	0
Future Vol, veh/h	0	0	0	1050	1169	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	0	0	1050	1169	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	585	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	459	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	459	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	0	0	1050	1169	0
Future Vol, veh/h	0	0	0	1050	1169	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	0	0	1050	1169	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	585	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	459	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	459	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

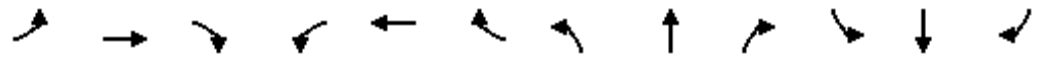
Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th Signalized Intersection Summary
 Int.15: Redlands Blvd & Encilia Ave

Moreno Valley Trade Center

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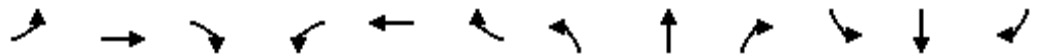


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗↘	↗
Traffic Volume (veh/h)	235	94	4	31	48	160	3	661	38	201	788	165
Future Volume (veh/h)	235	94	4	31	48	160	3	661	38	201	788	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	235	94	4	31	48	160	3	661	38	201	788	165
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	280	850	36	79	234	209	10	1356	78	226	1841	821
Arrive On Green	0.15	0.24	0.24	0.04	0.13	0.13	0.00	0.13	0.13	0.13	0.51	0.51
Sat Flow, veh/h	1810	3529	149	1810	1805	1610	1810	3470	199	1810	3610	1610
Grp Volume(v), veh/h	235	48	50	31	48	160	3	344	355	201	788	165
Grp Sat Flow(s),veh/h/ln	1810	1805	1873	1810	1805	1610	1810	1805	1864	1810	1805	1610
Q Serve(g_s), s	10.1	1.7	1.7	1.3	1.9	7.7	0.1	14.2	14.2	8.7	10.9	4.5
Cycle Q Clear(g_c), s	10.1	1.7	1.7	1.3	1.9	7.7	0.1	14.2	14.2	8.7	10.9	4.5
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	280	435	451	79	234	209	10	705	728	226	1841	821
V/C Ratio(X)	0.84	0.11	0.11	0.39	0.20	0.77	0.29	0.49	0.49	0.89	0.43	0.20
Avail Cap(c_a), veh/h	407	654	679	158	406	362	158	705	728	226	1841	821
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	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	23.7	23.7	37.2	31.1	33.6	39.8	27.4	27.4	34.5	12.3	10.7
Incr Delay (d2), s/veh	10.0	0.1	0.1	3.2	0.4	5.8	14.8	2.4	2.3	32.0	0.7	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	5.1	0.7	0.7	0.6	0.8	3.3	0.1	7.2	7.4	5.8	4.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	23.8	23.8	40.4	31.5	39.4	54.6	29.7	29.7	66.4	13.0	11.2
LnGrp LOS	D	C	C	D	C	D	D	C	C	E	B	B
Approach Vol, veh/h		333			239			702			1154	
Approach Delay, s/veh		37.3			38.0			29.8			22.1	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	35.3	7.5	23.3	4.5	44.8	16.4	14.4				
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	10.0	18.0	7.0	29.0	7.0	21.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	10.7	16.2	3.3	3.7	2.1	12.9	12.1	9.7				
Green Ext Time (p_c), s	0.0	0.8	0.0	0.5	0.0	3.7	0.3	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				28.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖		↖		↑↑	↖		↑↑	↖
Traffic Volume (veh/h)	0	0	0	324	0	11	0	589	643	0	624	149
Future Volume (veh/h)	0	0	0	324	0	11	0	589	643	0	624	149
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				324	0	11	0	589	0	0	624	149
Peak Hour Factor				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
Cap, veh/h				0	0	0	0	3490		0	3490	1556
Arrive On Green				0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.97	0.97
Sat Flow, veh/h					0		0	3705	1610	0	3705	1610
Grp Volume(v), veh/h					0.0		0	589	0	0	624	149
Grp Sat Flow(s),veh/h/ln							0	1805	1610	0	1805	1610
Q Serve(g_s), s							0.0	14.1	0.0	0.0	0.8	0.4
Cycle Q Clear(g_c), s							0.0	14.1	0.0	0.0	0.8	0.4
Prop In Lane							0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h							0	3490		0	3490	1556
V/C Ratio(X)							0.00	0.17		0.00	0.18	0.10
Avail Cap(c_a), veh/h							0	3490		0	3490	1556
HCM Platoon Ratio							1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)							0.00	0.72	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh							0.0	6.2	0.0	0.0	0.1	0.1
Incr Delay (d2), s/veh							0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	2.1	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	6.2	0.0	0.0	0.2	0.2
LnGrp LOS							A	A		A	A	A
Approach Vol, veh/h								589	A		773	
Approach Delay, s/veh								6.2			0.2	
Approach LOS								A			A	
Timer - Assigned Phs		2				6						
Phs Duration (G+Y+Rc), s		120.0				120.0						
Change Period (Y+Rc), s		4.0				4.0						
Max Green Setting (Gmax), s		53.0				53.0						
Max Q Clear Time (g_c+I1), s		16.1				2.8						
Green Ext Time (p_c), s		4.5				5.6						
Intersection Summary												
HCM 6th Ctrl Delay				2.8								
HCM 6th LOS				A								
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	12	658	0	0	0	0	973	386	88	859	0
Future Volume (veh/h)	258	12	658	0	0	0	0	973	386	88	859	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	176	0	754				0	973	386	88	859	0
Peak Hour Factor	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
Cap, veh/h	479	0	852				0	1692	755	302	2414	0
Arrive On Green	0.26	0.00	0.26				0.00	0.94	0.94	0.33	1.00	0.00
Sat Flow, veh/h	1810	0	3220				0	3705	1610	1810	3705	0
Grp Volume(v), veh/h	176	0	754				0	973	386	88	859	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1810	1805	0
Q Serve(g_s), s	9.5	0.0	27.0				0.0	4.4	3.4	4.3	0.0	0.0
Cycle Q Clear(g_c), s	9.5	0.0	27.0				0.0	4.4	3.4	4.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	479	0	852				0	1692	755	302	2414	0
V/C Ratio(X)	0.37	0.00	0.89				0.00	0.57	0.51	0.29	0.36	0.00
Avail Cap(c_a), veh/h	573	0	1020				0	1692	755	302	2414	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.87	0.87	0.91	0.91	0.00
Uniform Delay (d), s/veh	36.0	0.0	42.4				0.0	2.1	2.1	34.8	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	8.3				0.0	1.2	2.1	2.2	0.4	0.0
Initial Q Delay(d3),s/veh	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	11.6				0.0	1.2	1.1	2.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	0.0	50.7				0.0	3.4	4.2	37.0	0.4	0.0
LnGrp LOS	D	A	D				A	A	A	D	A	A
Approach Vol, veh/h		930						1359			947	
Approach Delay, s/veh		48.0						3.6			3.8	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	34.0	60.3	35.7	84.3								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	20.0	50.0	38.0	74.0								
Max Q Clear Time (g_c+10), s	10.3	6.4	29.0	2.0								
Green Ext Time (p_c), s	0.1	11.1	2.8	7.7								

Intersection Summary

HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	449	175	133	47	195	151	166	760	70	343	758	432
Future Volume (veh/h)	449	175	133	47	195	151	166	760	70	343	758	432
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		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	449	175	133	47	195	151	166	760	70	343	758	432
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	529	224	190	271	422	188	226	2489	773	418	2773	861
Arrive On Green	0.15	0.12	0.12	0.15	0.12	0.12	0.06	0.48	0.48	0.12	0.53	0.53
Sat Flow, veh/h	3510	1900	1610	1810	3610	1610	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	449	175	133	47	195	151	166	760	70	343	758	432
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1805	1610	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	14.9	10.7	8.1	2.7	6.1	11.0	5.6	10.7	1.7	11.4	9.6	20.5
Cycle Q Clear(g_c), s	14.9	10.7	8.1	2.7	6.1	11.0	5.6	10.7	1.7	11.4	9.6	20.5
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	529	224	190	271	422	188	226	2489	773	418	2773	861
V/C Ratio(X)	0.85	0.78	0.70	0.17	0.46	0.80	0.73	0.31	0.09	0.82	0.27	0.50
Avail Cap(c_a), veh/h	761	586	496	271	632	282	351	2489	773	673	2773	861
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)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	49.6	51.4	36.9	44.5	49.5	51.6	55.1	19.0	5.8	51.6	15.2	17.8
Incr Delay (d2), s/veh	5.9	5.5	4.4	0.3	0.8	9.6	4.6	0.3	0.2	3.8	0.2	1.9
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	7.0	5.5	3.4	1.3	2.8	4.9	2.6	4.4	1.1	5.3	3.8	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	56.9	41.3	44.8	50.3	61.2	59.7	19.3	6.0	55.4	15.4	19.6
LnGrp LOS	E	E	D	D	D	E	E	B	A	E	B	B
Approach Vol, veh/h		757			393			996			1533	
Approach Delay, s/veh		53.3			53.8			25.1			25.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.3	61.6	22.0	18.1	11.7	68.2	22.1	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	23.0	34.0	10.0	37.0	12.0	45.0	26.0	21.0				
Max Q Clear Time (g_c+I), s	13.4	12.7	4.7	12.7	7.6	22.5	16.9	13.0				
Green Ext Time (p_c), s	0.9	5.6	0.0	1.4	0.2	7.4	1.2	1.1				
Intersection Summary												
HCM 6th Ctrl Delay											34.2	
HCM 6th LOS											C	

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	422	63	15	394	3	37	2	20	0	1	5
Future Vol, veh/h	12	422	63	15	394	3	37	2	20	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	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	12	422	63	15	394	3	37	2	20	0	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	397	0	0	485	0	0	674	873	211	660	933	197
Stage 1	-	-	-	-	-	-	446	446	-	424	424	-
Stage 2	-	-	-	-	-	-	228	427	-	236	509	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1173	-	-	1088	-	-	344	291	801	352	268	817
Stage 1	-	-	-	-	-	-	567	577	-	584	590	-
Stage 2	-	-	-	-	-	-	760	589	-	752	541	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1173	-	-	1088	-	-	335	284	801	336	262	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	437	390	-	336	262	-
Stage 1	-	-	-	-	-	-	561	571	-	578	582	-
Stage 2	-	-	-	-	-	-	744	581	-	723	536	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			12.5			11		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	437	731	1173	-	-	1088	-	-	604
HCM Lane V/C Ratio	0.085	0.03	0.01	-	-	0.014	-	-	0.01
HCM Control Delay (s)	14	10.1	8.1	-	-	8.4	-	-	11
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗			↕			↕	
Traffic Vol, veh/h	2	230	88	66	343	0	26	0	30	2	0	0
Future Vol, veh/h	2	230	88	66	343	0	26	0	30	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
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	2	230	88	66	343	0	26	0	30	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	343	0	0	318	0	0	582	753	159	594	797	172
Stage 1	-	-	-	-	-	-	278	278	-	475	475	-
Stage 2	-	-	-	-	-	-	304	475	-	119	322	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1227	-	-	1253	-	-	401	341	864	393	322	848
Stage 1	-	-	-	-	-	-	711	684	-	545	561	-
Stage 2	-	-	-	-	-	-	686	561	-	879	655	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1227	-	-	1253	-	-	385	322	864	364	304	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	484	414	-	447	393	-
Stage 1	-	-	-	-	-	-	710	683	-	544	531	-
Stage 2	-	-	-	-	-	-	650	531	-	847	654	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.3			11.2			13.1		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1227	-	-	1253	-	-	447
HCM Lane V/C Ratio	0.088	0.002	-	-	0.053	-	-	0.004
HCM Control Delay (s)	11.2	7.9	-	-	8	-	-	13.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	1	102	2	4	154	11	1	0	6	3	0	0
Future Vol, veh/h	1	102	2	4	154	11	1	0	6	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	102	2	4	154	11	1	0	6	3	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	165	0	0	104	0	0	190	278	52	221	274	83
Stage 1	-	-	-	-	-	-	105	105	-	168	168	-
Stage 2	-	-	-	-	-	-	85	173	-	53	106	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1497	-	-	1500	-	-	*858	691	1011	815	695	*1052
Stage 1	-	-	-	-	-	-	*895	812	-	907	814	-
Stage 2	-	-	-	-	-	-	*992	809	-	959	811	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1497	-	-	1500	-	-	*855	688	1011	808	692	*1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	*855	688	-	808	692	-
Stage 1	-	-	-	-	-	-	*894	811	-	906	811	-
Stage 2	-	-	-	-	-	-	*989	806	-	952	810	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.2			8.7			9.5		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	985	1497	-	-	1500	-	-	808
HCM Lane V/C Ratio	0.007	0.001	-	-	0.003	-	-	0.004
HCM Control Delay (s)	8.7	7.4	0	-	7.4	0	-	9.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	105	0	0	165	15	1	0	18	5	0	0
Future Vol, veh/h	0	105	0	0	165	15	1	0	18	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	105	0	0	165	15	1	0	18	5	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	180	0	0	105	0	0	188	285	53	226	278	90
Stage 1	-	-	-	-	-	-	105	105	-	173	173	-
Stage 2	-	-	-	-	-	-	83	180	-	53	105	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*1537	-	-	1499	-	-	*954	*735	1010	*894	*743	*1024
Stage 1	-	-	-	-	-	-	*895	*812	-	*965	*845	-
Stage 2	-	-	-	-	-	-	*965	*845	-	*959	*812	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	*1537	-	-	1499	-	-	*954	*735	1010	*878	*743	*1024
Mov Cap-2 Maneuver	-	-	-	-	-	-	*954	*735	-	*878	*743	-
Stage 1	-	-	-	-	-	-	*895	*812	-	*965	*845	-
Stage 2	-	-	-	-	-	-	*965	*845	-	*942	*812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.6	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1007	*1537	-	-	1499	-	-	878
HCM Lane V/C Ratio	0.019	-	-	-	-	-	-	0.006
HCM Control Delay (s)	8.6	0	-	-	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔			↔	
Traffic Vol, veh/h	0	110	0	1	180	22	0	0	6	6	0	0
Future Vol, veh/h	0	110	0	1	180	22	0	0	6	6	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	-
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	110	0	1	180	22	0	0	6	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	202	0	0	110	0	0	202	314	55	248	303	101
Stage 1	-	-	-	-	-	-	110	110	-	193	193	-
Stage 2	-	-	-	-	-	-	92	204	-	55	110	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1509	-	-	1493	-	-	*931	707	1007	861	718	*1024
Stage 1	-	-	-	-	-	-	*889	808	-	949	835	-
Stage 2	-	-	-	-	-	-	*965	825	-	956	808	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1509	-	-	1493	-	-	*931	706	1007	856	717	*1024
Mov Cap-2 Maneuver	-	-	-	-	-	-	*931	706	-	856	717	-
Stage 1	-	-	-	-	-	-	*889	808	-	949	834	-
Stage 2	-	-	-	-	-	-	*965	824	-	950	808	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.6			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1007	1509	-	-	1493	-	-	856
HCM Lane V/C Ratio	0.006	-	-	-	0.001	-	-	0.007
HCM Control Delay (s)	8.6	0	-	-	7.4	-	-	9.2
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	260	0	0	409	0	5
Future Vol, veh/h	260	0	0	409	0	5
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	260	0	0	409	0	5

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	130
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	902
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	902
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

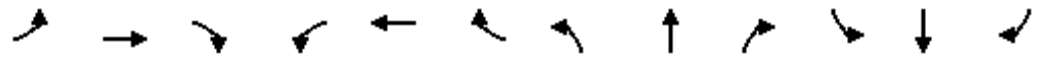
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	902	-	-	-
HCM Lane V/C Ratio	0.006	-	-	-
HCM Control Delay (s)	9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔	↗		↑↑	↗		↑↑	↗
Traffic Volume (veh/h)	0	0	0	287	0	128	0	657	363	0	683	453
Future Volume (veh/h)	0	0	0	287	0	128	0	657	363	0	683	453
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				327	0	85	0	657	0	0	683	453
Peak Hour Factor				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
Cap, veh/h				421	0	187	0	2949		0	2949	1316
Arrive On Green				0.12	0.00	0.12	0.00	1.00	0.00	0.00	0.82	0.82
Sat Flow, veh/h				3619	0	1610	0	3705	1610	0	3705	1610
Grp Volume(v), veh/h				327	0	85	0	657	0	0	683	453
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1805	1610	0	1805	1610
Q Serve(g_s), s				10.5	0.0	5.9	0.0	0.0	0.0	0.0	5.1	8.6
Cycle Q Clear(g_c), s				10.5	0.0	5.9	0.0	0.0	0.0	0.0	5.1	8.6
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				421	0	187	0	2949		0	2949	1316
V/C Ratio(X)				0.78	0.00	0.45	0.00	0.22		0.00	0.23	0.34
Avail Cap(c_a), veh/h				1086	0	483	0	2949		0	2949	1316
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.94	0.00	0.00	0.88	0.88
Uniform Delay (d), s/veh				51.5	0.0	49.5	0.0	0.0	0.0	0.0	2.5	2.8
Incr Delay (d2), s/veh				3.1	0.0	1.7	0.0	0.2	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln				5.0	0.0	2.5	0.0	0.1	0.0	0.0	1.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				54.6	0.0	51.2	0.0	0.2	0.0	0.0	2.6	3.4
LnGrp LOS				D	A	D	A	A		A	A	A
Approach Vol, veh/h					412			657	A		1136	
Approach Delay, s/veh					53.9			0.2			3.0	
Approach LOS					D			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		102.0				102.0		18.0				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		76.0				76.0		36.0				
Max Q Clear Time (g_c+I1), s		2.0				10.6		12.5				
Green Ext Time (p_c), s		5.4				8.0		1.4				

Intersection Summary

HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	0	411	0	0	0	0	809	166	0	908	61
Future Volume (veh/h)	228	0	411	0	0	0	0	809	166	0	908	61
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	152	0	492				0	809	166	0	908	0
Peak Hour Factor	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
Cap, veh/h	334	0	594				0	2703	1206	0	2703	
Arrive On Green	0.18	0.00	0.18				0.00	0.75	0.75	0.00	0.75	0.00
Sat Flow, veh/h	1810	0	3220				0	3705	1610	0	3705	1610
Grp Volume(v), veh/h	152	0	492				0	809	166	0	908	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	0	1805	1610
Q Serve(g_s), s	9.0	0.0	17.6				0.0	8.7	3.5	0.0	10.1	0.0
Cycle Q Clear(g_c), s	9.0	0.0	17.6				0.0	8.7	3.5	0.0	10.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	334	0	594				0	2703	1206	0	2703	
V/C Ratio(X)	0.46	0.00	0.83				0.00	0.30	0.14	0.00	0.34	
Avail Cap(c_a), veh/h	633	0	1127				0	2703	1206	0	2703	
HCM Platoon Ratio	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				0.00	1.00	1.00	0.00	0.96	0.00
Uniform Delay (d), s/veh	43.6	0.0	47.1				0.0	4.9	4.2	0.0	5.1	0.0
Incr Delay (d2), s/veh	1.0	0.0	3.0				0.0	0.3	0.2	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	7.3				0.0	3.0	1.1	0.0	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	0.0	50.1				0.0	5.2	4.5	0.0	5.4	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	
Approach Vol, veh/h	644						975			908		
Approach Delay, s/veh	48.8						5.0			5.4		
Approach LOS	D						A			A		
Timer - Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	93.9		26.1		93.9							
Change Period (Y+Rc), s	4.0		4.0		4.0							
Max Green Setting (Gmax), s	70.0		42.0		70.0							
Max Q Clear Time (g_c+I1), s	10.7		19.6		12.1							
Green Ext Time (p_c), s	7.8		2.5		8.2							

Intersection Summary

HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection									
Intersection Delay, s/veh 9.7									
Intersection LOS A									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	266		430		797		1320		
Demand Flow Rate, veh/h	266		430		797		1320		
Vehicles Circulating, veh/h	1119		752		450		208		
Vehicles Exiting, veh/h	409		495		935		974		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	10.7		9.1		8.9		10.1		
Approach LOS	B		A		A		B		
Lane	Left		Right		Left		Right		
Designated Moves	L	LTR	LT	R	LT	TR	LT	TR	
Assumed Moves	L	TR	LT	R	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.368	0.632	0.323	0.677	0.471	0.529	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	98	168	139	291	375	422	620	700	
Cap Entry Lane, veh/h	482	549	676	749	892	969	1115	1190	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	0.999	1.001	1.001	0.999	
Flow Entry, veh/h	98	168	139	291	375	422	620	700	
Cap Entry, veh/h	482	549	676	749	891	970	1115	1189	
V/C Ratio	0.203	0.306	0.206	0.388	0.420	0.436	0.556	0.588	
Control Delay, s/veh	10.4	11.0	7.7	9.8	9.0	8.7	10.0	10.2	
LOS	B	B	A	A	A	A	A	B	
95th %tile Queue, veh	1	1	1	2	2	2	4	4	

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	4	0	798	921	14
Future Vol, veh/h	0	4	0	798	921	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	4	0	798	921	14

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	468	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	547	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	547	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 547	-	-
HCM Lane V/C Ratio	- 0.007	-	-
HCM Control Delay (s)	- 11.6	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	4	0	798	862	62
Future Vol, veh/h	0	4	0	798	862	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	4	0	798	862	62

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	462	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	552	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	552	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 552	-	-
HCM Lane V/C Ratio	- 0.007	-	-
HCM Control Delay (s)	- 11.6	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0	-	-

HCM 6th Signalized Intersection Summary
 Int.15: Redlands Blvd & Encilia Ave

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕		↖	↕		↖	↕	↖
Traffic Volume (veh/h)	96	16	5	25	38	80	28	660	29	99	558	136
Future Volume (veh/h)	96	16	5	25	38	80	28	660	29	99	558	136
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		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	96	16	5	25	38	80	28	660	29	99	558	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	123	285	85	62	127	113	66	2279	100	126	2455	1095
Arrive On Green	0.07	0.10	0.10	0.03	0.07	0.07	0.07	1.00	1.00	0.07	0.68	0.68
Sat Flow, veh/h	1810	2743	815	1810	1805	1610	1810	3522	155	1810	3610	1610
Grp Volume(v), veh/h	96	10	11	25	38	80	28	338	351	99	558	136
Grp Sat Flow(s),veh/h/ln	1810	1805	1753	1810	1805	1610	1810	1805	1872	1810	1805	1610
Q Serve(g_s), s	5.7	0.6	0.6	1.5	2.2	5.3	1.6	0.0	0.0	5.9	6.4	3.2
Cycle Q Clear(g_c), s	5.7	0.6	0.6	1.5	2.2	5.3	1.6	0.0	0.0	5.9	6.4	3.2
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	123	188	182	62	127	113	66	1168	1211	126	2455	1095
V/C Ratio(X)	0.78	0.05	0.06	0.41	0.30	0.71	0.42	0.29	0.29	0.79	0.23	0.12
Avail Cap(c_a), veh/h	280	459	446	148	328	293	263	1168	1211	263	2455	1095
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	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	44.4	44.4	52.0	48.6	50.0	49.9	0.0	0.0	50.4	6.7	6.2
Incr Delay (d2), s/veh	10.3	0.1	0.1	4.3	1.3	7.8	4.2	0.6	0.6	10.3	0.2	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	2.9	0.3	0.3	0.7	1.0	2.4	0.8	0.2	0.2	3.0	2.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	44.5	44.6	56.3	49.9	57.9	54.1	0.6	0.6	60.6	6.9	6.4
LnGrp LOS	E	D	D	E	D	E	D	A	A	E	A	A
Approach Vol, veh/h		117			143			717			793	
Approach Delay, s/veh		57.9			55.5			2.7			13.5	
Approach LOS		E			E			A			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.7	75.2	7.7	15.4	8.0	78.8	11.5	11.7				
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	16.0	41.0	9.0	28.0	16.0	41.0	17.0	20.0				
Max Q Clear Time (g_c+I1), s	7.9	2.0	3.5	2.6	3.6	8.4	7.7	7.3				
Green Ext Time (p_c), s	0.1	4.8	0.0	0.1	0.0	4.7	0.1	0.4				

Intersection Summary

HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
 Int.1: Moreno Beach Dr & SR-60 WB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰		↰		↕	↰		↕	↰
Traffic Volume (veh/h)	0	0	0	405	0	57	0	767	869	0	597	132
Future Volume (veh/h)	0	0	0	405	0	57	0	767	869	0	597	132
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				405	0	57	0	767	0	0	597	132
Peak Hour Factor				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
Cap, veh/h				0	0	0	0	3490		0	3490	1556
Arrive On Green				0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.97
Sat Flow, veh/h					0		0	3705	1610	0	3705	1610
Grp Volume(v), veh/h					0.0		0	767	0	0	597	132
Grp Sat Flow(s),veh/h/ln							0	1805	1610	0	1805	1610
Q Serve(g_s), s							0.0	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s							0.0	0.0	0.0	0.0	0.0	0.4
Prop In Lane							0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h							0	3490		0	3490	1556
V/C Ratio(X)							0.00	0.22		0.00	0.17	0.08
Avail Cap(c_a), veh/h							0	3490		0	3490	1556
HCM Platoon Ratio							1.00	1.33	1.33	1.00	1.33	1.00
Upstream Filter(I)							0.00	0.51	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh							0.0	0.0	0.0	0.0	0.0	0.1
Incr Delay (d2), s/veh							0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	0.0	0.0	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	0.1	0.0	0.0	0.1	0.2
LnGrp LOS							A	A		A	A	A
Approach Vol, veh/h								767	A		729	
Approach Delay, s/veh								0.1			0.1	
Approach LOS								A			A	
Timer - Assigned Phs		2				6						
Phs Duration (G+Y+Rc), s		120.0				120.0						
Change Period (Y+Rc), s		4.0				4.0						
Max Green Setting (Gmax), s		53.0				53.0						
Max Q Clear Time (g_c+I1), s		2.0				2.4						
Green Ext Time (p_c), s		6.5				5.2						

Intersection Summary

HCM 6th Ctrl Delay	0.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	8	817	0	0	0	0	1287	574	90	911	0
Future Volume (veh/h)	350	8	817	0	0	0	0	1287	574	90	911	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	236	0	944				0	1287	574	90	911	0
Peak Hour Factor	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
Cap, veh/h	555	0	988				0	1585	707	279	2262	0
Arrive On Green	0.31	0.00	0.31				0.00	0.44	0.44	0.21	0.83	0.00
Sat Flow, veh/h	1810	0	3220				0	3705	1610	1810	3705	0
Grp Volume(v), veh/h	236	0	944				0	1287	574	90	911	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1810	1805	0
Q Serve(g_s), s	12.5	0.0	34.5				0.0	37.3	37.3	5.1	7.6	0.0
Cycle Q Clear(g_c), s	12.5	0.0	34.5				0.0	37.3	37.3	5.1	7.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	555	0	988				0	1585	707	279	2262	0
V/C Ratio(X)	0.43	0.00	0.96				0.00	0.81	0.81	0.32	0.40	0.00
Avail Cap(c_a), veh/h	558	0	993				0	1585	707	279	2262	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.66	0.66	0.88	0.88	0.00
Uniform Delay (d), s/veh	33.2	0.0	40.8				0.0	29.3	29.3	42.4	4.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	18.7				0.0	3.1	6.7	2.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	16.1				0.0	16.5	15.4	2.5	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	59.5				0.0	32.4	36.0	45.0	4.8	0.0
LnGrp LOS	C	A	E				A	C	D	D	A	A
Approach Vol, veh/h		1180						1861			1001	
Approach Delay, s/veh		54.4						33.6			8.4	
Approach LOS		D						C			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	32.5	56.7	40.8	79.2								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	10.5	52.5	37.0	75.0								
Max Q Clear Time (g_c+1), s	17.5	39.3	36.5	9.6								
Green Ext Time (p_c), s	0.1	9.1	0.3	8.3								

Intersection Summary

HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 Int.3: Moreno Beach Dr & Eucalyptus Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	713	274	235	92	220	429	236	719	37	308	963	502
Future Volume (veh/h)	713	274	235	92	220	429	236	719	37	308	963	502
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		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	713	274	235	92	220	429	236	719	37	308	963	502
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	783	338	287	534	902	403	358	1487	462	376	1513	470
Arrive On Green	0.22	0.18	0.18	0.29	0.25	0.25	0.10	0.29	0.29	0.11	0.29	0.29
Sat Flow, veh/h	3510	1900	1610	1810	3610	1610	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	713	274	235	92	220	429	236	719	37	308	963	502
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1805	1610	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	23.8	16.6	16.9	4.5	5.8	30.0	7.8	13.8	1.0	10.3	19.4	20.7
Cycle Q Clear(g_c), s	23.8	16.6	16.9	4.5	5.8	30.0	7.8	13.8	1.0	10.3	19.4	20.7
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	783	338	287	534	903	403	358	1487	462	376	1513	470
V/C Ratio(X)	0.91	0.81	0.82	0.17	0.24	1.07	0.66	0.48	0.08	0.82	0.64	1.07
Avail Cap(c_a), veh/h	848	728	617	534	903	403	358	1487	462	527	1513	470
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)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	45.5	47.4	47.5	31.4	35.9	45.0	51.9	35.4	7.6	52.4	37.0	14.9
Incr Delay (d2), s/veh	10.4	3.5	4.3	0.2	0.1	63.4	4.4	1.1	0.3	6.0	1.8	58.0
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	11.4	8.2	7.1	2.0	2.6	19.0	3.6	6.0	0.8	4.9	8.4	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	50.9	51.8	31.6	36.1	108.4	56.2	36.6	7.9	58.5	38.7	72.9
LnGrp LOS	E	D	D	C	D	F	E	D	A	E	D	F
Approach Vol, veh/h		1222			741			992			1773	
Approach Delay, s/veh		54.0			77.4			40.2			51.8	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.8	38.4	39.4	25.4	16.2	39.0	30.8	34.0				
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	13.0	27.0	13.0	46.0	10.0	35.0	29.0	30.0				
Max Q Clear Time (g_c+1/2), s	11.3	15.8	6.5	18.9	9.8	22.7	25.8	32.0				
Green Ext Time (p_c), s	0.5	3.8	0.1	2.5	0.0	6.8	1.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	53.9
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	622	44	22	617	1	84	6	11	0	6	20
Future Vol, veh/h	16	622	44	22	617	1	84	6	11	0	6	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	25	85	-	25	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	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	622	44	22	617	1	84	6	11	0	6	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	618	0	0	666	0	0	1010	1316	311	1007	1359	309
Stage 1	-	-	-	-	-	-	654	654	-	661	661	-
Stage 2	-	-	-	-	-	-	356	662	-	346	698	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	972	-	-	933	-	-	197	159	691	198	150	693
Stage 1	-	-	-	-	-	-	427	466	-	423	463	-
Stage 2	-	-	-	-	-	-	640	462	-	649	445	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	972	-	-	933	-	-	180	153	691	186	144	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	274	-	186	144	-
Stage 1	-	-	-	-	-	-	420	459	-	416	452	-
Stage 2	-	-	-	-	-	-	599	451	-	620	438	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			20.1			15.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	302	450	972	-	-	933	-	-	369
HCM Lane V/C Ratio	0.278	0.038	0.016	-	-	0.024	-	-	0.07
HCM Control Delay (s)	21.5	13.3	8.8	-	-	9	-	-	15.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.1	0.1	0.1	-	-	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕			↕			↕	
Traffic Vol, veh/h	0	450	36	27	337	0	91	0	104	0	0	0
Future Vol, veh/h	0	450	36	27	337	0	91	0	104	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
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	450	36	27	337	0	91	0	104	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	337	0	0	486	0	0	691	859	243	616	877	169
Stage 1	-	-	-	-	-	-	468	468	-	391	391	-
Stage 2	-	-	-	-	-	-	223	391	-	225	486	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1234	-	-	1087	-	-	335	296	764	379	289	852
Stage 1	-	-	-	-	-	-	550	565	-	610	611	-
Stage 2	-	-	-	-	-	-	765	611	-	763	554	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1234	-	-	1087	-	-	329	289	764	321	282	852
Mov Cap-2 Maneuver	-	-	-	-	-	-	432	396	-	430	383	-
Stage 1	-	-	-	-	-	-	550	565	-	610	596	-
Stage 2	-	-	-	-	-	-	746	596	-	659	554	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			14.8			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	562	1234	-	-	1087	-	-	-
HCM Lane V/C Ratio	0.347	-	-	-	0.025	-	-	-
HCM Control Delay (s)	14.8	0	-	-	8.4	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1.5	0	-	-	0.1	-	-	-

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	333	0	13	216	4	0	0	3	11	0	1
Future Vol, veh/h	0	333	0	13	216	4	0	0	3	11	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	333	0	13	216	4	0	0	3	11	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	220	0	0	333	0	0	467	579	167	411	577	110
Stage 1	-	-	-	-	-	-	333	333	-	244	244	-
Stage 2	-	-	-	-	-	-	134	246	-	167	333	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1454	-	-	1238	-	-	*564	477	854	621	479	*1038
Stage 1	-	-	-	-	-	-	*660	647	-	849	771	-
Stage 2	-	-	-	-	-	-	*979	769	-	824	647	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1454	-	-	1238	-	-	*559	471	854	613	473	*1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	*559	471	-	613	473	-
Stage 1	-	-	-	-	-	-	*660	647	-	849	762	-
Stage 2	-	-	-	-	-	-	*967	760	-	821	647	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.4			9.2			10.8		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	854	1454	-	-	1238	-	-	635
HCM Lane V/C Ratio	0.004	-	-	-	0.011	-	-	0.019
HCM Control Delay (s)	9.2	0	-	-	7.9	0	-	10.8
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	344	0	7	220	6	0	0	3	17	0	0
Future Vol, veh/h	0	344	0	7	220	6	0	0	3	17	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	344	0	7	220	6	0	0	3	17	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	226	0	0	344	0	0	468	584	172	409	581	113
Stage 1	-	-	-	-	-	-	344	344	-	237	237	-
Stage 2	-	-	-	-	-	-	124	240	-	172	344	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1446	-	-	1226	-	-	*564	474	848	623	476	*1038
Stage 1	-	-	-	-	-	-	*650	640	-	856	776	-
Stage 2	-	-	-	-	-	-	*979	774	-	819	640	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1446	-	-	1226	-	-	*561	471	848	617	472	*1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	*561	471	-	617	472	-
Stage 1	-	-	-	-	-	-	*650	640	-	856	771	-
Stage 2	-	-	-	-	-	-	*972	769	-	816	640	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	9.3	11
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	848	1446	-	-	1226	-	-	617
HCM Lane V/C Ratio	0.004	-	-	-	0.006	-	-	0.028
HCM Control Delay (s)	9.3	0	-	-	8	0	-	11
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕			↕↕	
Traffic Vol, veh/h	0	362	0	3	226	9	0	0	2	23	0	0
Future Vol, veh/h	0	362	0	3	226	9	0	0	2	23	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	-
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	362	0	3	226	9	0	0	2	23	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	235	0	0	362	0	0	481	603	181	418	599	118
Stage 1	-	-	-	-	-	-	362	362	-	237	237	-
Stage 2	-	-	-	-	-	-	119	241	-	181	362	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*1500	-	-	1208	-	-	*628	*505	837	*701	*508	*999
Stage 1	-	-	-	-	-	-	*635	*629	-	*942	*825	-
Stage 2	-	-	-	-	-	-	*942	*825	-	*809	*629	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	*1500	-	-	1208	-	-	*626	*504	837	*698	*507	*999
Mov Cap-2 Maneuver	-	-	-	-	-	-	*626	*504	-	*698	*507	-
Stage 1	-	-	-	-	-	-	*635	*629	-	*942	*823	-
Stage 2	-	-	-	-	-	-	*940	*823	-	*807	*629	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	9.3	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	837	*1500	-	-	1208	-	-	698
HCM Lane V/C Ratio	0.002	-	-	-	0.002	-	-	0.033
HCM Control Delay (s)	9.3	0	-	-	8	-	-	10.3
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	554	0	0	364	0	18
Future Vol, veh/h	554	0	0	364	0	18
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	554	0	0	364	0	18

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	277
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	726
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	726
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

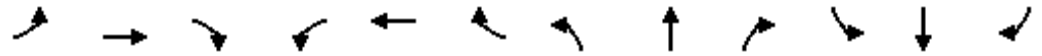
Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	726	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-
HCM Control Delay (s)	10.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔	↗		↑↑	↗		↑↑	↗
Traffic Volume (veh/h)	0	0	0	275	0	68	0	1039	381	0	672	475
Future Volume (veh/h)	0	0	0	275	0	68	0	1039	381	0	672	475
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				296	0	45	0	1039	0	0	672	475
Peak Hour Factor				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
Cap, veh/h				383	0	170	0	2987		0	2987	1332
Arrive On Green				0.11	0.00	0.11	0.00	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h				3619	0	1610	0	3705	1610	0	3705	1610
Grp Volume(v), veh/h				296	0	45	0	1039	0	0	672	475
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1805	1610	0	1805	1610
Q Serve(g_s), s				9.6	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				9.6	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				383	0	170	0	2987		0	2987	1332
V/C Ratio(X)				0.77	0.00	0.26	0.00	0.35		0.00	0.22	0.36
Avail Cap(c_a), veh/h				995	0	443	0	2987		0	2987	1332
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.86	0.00	0.00	0.90	0.90
Uniform Delay (d), s/veh				52.2	0.0	49.4	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				3.3	0.0	0.8	0.0	0.3	0.0	0.0	0.2	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.5	0.0	1.3	0.0	0.1	0.0	0.0	0.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.6	0.0	50.2	0.0	0.3	0.0	0.0	0.2	0.7
LnGrp LOS				E	A	D	A	A		A	A	A
Approach Vol, veh/h					341			1039	A		1147	
Approach Delay, s/veh					54.9			0.3			0.4	
Approach LOS					D			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		103.3				103.3		16.7				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		79.0				79.0		33.0				
Max Q Clear Time (g_c+I1), s		2.0				2.0		11.6				
Green Ext Time (p_c), s		10.2				8.0		1.1				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 Int.11: Redlands Blvd & SR-60 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	511	0	513	0	0	0	0	909	186	0	892	59
Future Volume (veh/h)	511	0	513	0	0	0	0	909	186	0	892	59
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	671	0	342				0	909	186	0	892	0
Peak Hour Factor	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
Cap, veh/h	881	0	392				0	2491	1111	0	2491	
Arrive On Green	0.24	0.00	0.24				0.00	1.00	1.00	0.00	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	3705	1610	0	3705	1610
Grp Volume(v), veh/h	671	0	342				0	909	186	0	892	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	0	1805	1610
Q Serve(g_s), s	20.7	0.0	24.5				0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	20.7	0.0	24.5				0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	881	0	392				0	2491	1111	0	2491	
V/C Ratio(X)	0.76	0.00	0.87				0.00	0.36	0.17	0.00	0.36	
Avail Cap(c_a), veh/h	1056	0	470				0	2491	1111	0	2491	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	0.96	0.00
Uniform Delay (d), s/veh	42.2	0.0	43.6				0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.7	0.0	14.4				0.0	0.4	0.3	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	0.0	11.3				0.0	0.1	0.1	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	0.0	58.0				0.0	0.4	0.3	0.0	0.4	0.0
LnGrp LOS	D	A	E				A	A	A	A	A	
Approach Vol, veh/h		1013						1095			892	A
Approach Delay, s/veh		49.3						0.4			0.4	
Approach LOS		D						A			A	
Timer - Assigned Phs		2	4			6						
Phs Duration (G+Y+Rc), s		86.8	33.2			86.8						
Change Period (Y+Rc), s		4.0	4.0			4.0						
Max Green Setting (Gmax), s		77.0	35.0			77.0						
Max Q Clear Time (g_c+I1), s		2.0	26.5			2.0						
Green Ext Time (p_c), s		9.3	2.7			8.1						

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection									
Intersection Delay, s/veh20.3									
Intersection LOS C									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	571		621		1099		1403		
Demand Flow Rate, veh/h	571		621		1099		1403		
Vehicles Circulating, veh/h	1362		796		723		323		
Vehicles Exiting, veh/h	364		1026		1210		1094		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	41.6		12.8		22.0		13.7		
Approach LOS	E		B		C		B		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	LTR	LT	R	LT	TR	LT	TR	
Assumed Moves	L	TR	LT	R	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.298	0.702	0.335	0.665	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	170	401	208	413	517	582	659	744	
Cap Entry Lane, veh/h	386	446	649	722	694	768	1003	1079	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	0.999	1.001	1.001	0.999	
Flow Entry, veh/h	170	401	208	413	517	582	659	744	
Cap Entry, veh/h	386	446	649	722	694	769	1003	1079	
V/C Ratio	0.441	0.899	0.320	0.572	0.745	0.758	0.657	0.689	
Control Delay, s/veh	18.7	51.3	9.7	14.3	22.5	21.6	13.5	13.8	
LOS	C	F	A	B	C	C	B	B	
95th %tile Queue, veh	2	10	1	4	7	7	5	6	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	13	0	1100	1205	6
Future Vol, veh/h	0	13	0	1100	1205	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	13	0	1100	1205	6

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	606	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	445	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	445	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 445	-	-
HCM Lane V/C Ratio	- 0.029	-	-
HCM Control Delay (s)	- 13.3	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	13	0	1100	1193	25
Future Vol, veh/h	0	13	0	1100	1193	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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	0	13	0	1100	1193	25

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	609	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	443	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	443	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 443	-	-
HCM Lane V/C Ratio	- 0.029	-	-
HCM Control Delay (s)	- 13.4	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

HCM 6th Signalized Intersection Summary
 Int.15: Redlands Blvd & Encilia Ave

Moreno Valley Trade Center
 10/29/2020





















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	94	13	31	48	160	13	662	38	208	809	174
Future Volume (veh/h)	277	94	13	31	48	160	13	662	38	208	809	174
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		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	277	94	13	31	48	160	13	662	38	208	809	174
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	321	842	114	79	234	209	40	1277	73	226	1700	758
Arrive On Green	0.18	0.26	0.26	0.04	0.13	0.13	0.02	0.37	0.37	0.13	0.47	0.47
Sat Flow, veh/h	1810	3193	434	1810	1805	1610	1810	3470	199	1810	3610	1610
Grp Volume(v), veh/h	277	52	55	31	48	160	13	344	356	208	809	174
Grp Sat Flow(s),veh/h/ln	1810	1805	1822	1810	1805	1610	1810	1805	1864	1810	1805	1610
Q Serve(g_s), s	11.9	1.8	1.8	1.3	1.9	7.7	0.6	11.9	11.9	9.1	12.2	2.4
Cycle Q Clear(g_c), s	11.9	1.8	1.8	1.3	1.9	7.7	0.6	11.9	11.9	9.1	12.2	2.4
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	321	476	480	79	234	209	40	664	686	226	1700	758
V/C Ratio(X)	0.86	0.11	0.11	0.39	0.20	0.77	0.33	0.52	0.52	0.92	0.48	0.23
Avail Cap(c_a), veh/h	407	564	569	249	406	362	158	664	686	226	1700	758
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	22.3	22.4	37.2	31.1	33.6	38.5	19.7	19.8	34.6	14.4	2.8
Incr Delay (d2), s/veh	14.3	0.1	0.1	3.2	0.4	5.8	4.6	2.8	2.7	38.5	1.0	0.7
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	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.7	0.8	0.6	0.8	3.3	0.3	5.3	5.4	6.3	4.9	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	22.4	22.5	40.4	31.5	39.4	43.1	22.5	22.5	73.1	15.4	3.5
LnGrp LOS	D	C	C	D	C	D	D	C	C	E	B	A
Approach Vol, veh/h		384			239			713			1191	
Approach Delay, s/veh		39.6			38.0			22.9			23.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	33.4	7.5	25.1	5.8	41.7	18.2	14.4				
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	10.0	18.0	11.0	25.0	7.0	21.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	11.1	13.9	3.3	3.8	2.6	14.2	13.9	9.7				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.5	0.0	3.3	0.3	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				27.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	2	496	0	0	0	0	543	121	13	288	0
Future Volume (veh/h)	44	2	496	0	0	0	0	543	121	13	288	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	656				0	654	146	16	347	0
Peak Hour Factor	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
Cap, veh/h	0	425	720				0	991	839	280	1348	0
Arrive On Green	0.00	0.00	0.22				0.00	0.52	0.52	0.31	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	0	656				0	654	146	16	347	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.0	23.8				0.0	30.1	5.7	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	23.8				0.0	30.1	5.7	0.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	425	720				0	991	839	280	1348	0
V/C Ratio(X)	0.00	0.00	0.91				0.00	0.66	0.17	0.06	0.26	0.00
Avail Cap(c_a), veh/h	0	462	784				0	991	839	280	1348	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	0.92	0.92	0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	0.0	45.4				0.0	21.0	15.1	35.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	14.1				0.0	3.2	0.4	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.9				0.0	13.9	2.2	0.4	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	59.5				0.0	24.1	15.5	35.6	0.4	0.0
LnGrp LOS	A	A	E				A	C	B	D	A	A
Approach Vol, veh/h		656						800			363	
Approach Delay, s/veh		59.5						22.6			2.0	
Approach LOS		E						C			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	22.6	66.6	30.8	89.2								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	18.6	60.2	29.2	82.8								
Max Q Clear Time (g_c+I1), s	2.7	32.1	25.8	2.0								
Green Ext Time (p_c), s	0.0	5.5	1.0	2.4								
Intersection Summary												
HCM 6th Ctrl Delay			31.8									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↑	↗	↘	↑	
Traffic Volume (veh/h)	65	2	564	0	0	0	0	727	168	8	322	0
Future Volume (veh/h)	65	2	564	0	0	0	0	727	168	8	322	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	648				0	742	171	8	329	0
Peak Hour Factor	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
Cap, veh/h	0	413	700				0	1004	851	279	1360	0
Arrive On Green	0.00	0.00	0.22				0.00	0.17	0.17	0.31	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	0	648				0	742	171	8	329	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.0	23.7				0.0	44.4	10.9	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	23.7				0.0	44.4	10.9	0.4	0.0	0.0
Prop In Lane	0.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	413	700				0	1004	851	279	1360	0
V/C Ratio(X)	0.00	0.00	0.93				0.00	0.74	0.20	0.03	0.24	0.00
Avail Cap(c_a), veh/h	0	428	725				0	1004	851	279	1360	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	0.83	0.83	0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	0.0	46.0				0.0	41.7	27.9	35.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	17.5				0.0	4.1	0.4	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	11.1				0.0	23.8	4.8	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	63.4				0.0	45.8	28.3	35.4	0.4	0.0
LnGrp LOS	A	A	E				A	D	C	D	A	A
Approach Vol, veh/h		648						913			337	
Approach Delay, s/veh		63.4						42.5			1.2	
Approach LOS		E						D			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	22.5	67.4	30.1	89.9								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	18.5	62.5	27.0	85.0								
Max Q Clear Time (g_c+I1), s	2.4	46.4	25.7	2.0								
Green Ext Time (p_c), s	0.0	5.4	0.4	2.2								

Intersection Summary

HCM 6th Ctrl Delay	42.3
HCM 6th LOS	D

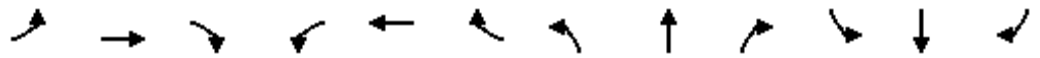
Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↑↑	↗	↘	↑	
Traffic Volume (veh/h)	246	11	637	0	0	0	0	738	256	78	463	0
Future Volume (veh/h)	246	11	637	0	0	0	0	738	256	78	463	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	296	356	538				0	889	308	94	558	0
Peak Hour Factor	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
Cap, veh/h	325	391	621				0	1296	578	280	1040	0
Arrive On Green	0.39	0.39	0.39				0.00	0.48	0.48	0.21	0.73	0.00
Sat Flow, veh/h	843	1014	1610				0	3705	1610	1810	1900	0
Grp Volume(v), veh/h	652	0	538				0	889	308	94	558	0
Grp Sat Flow(s),veh/h/ln	1858	0	1610				0	1805	1610	1810	1900	0
Q Serve(g_s), s	39.8	0.0	37.0				0.0	23.0	16.1	5.3	15.7	0.0
Cycle Q Clear(g_c), s	39.8	0.0	37.0				0.0	23.0	16.1	5.3	15.7	0.0
Prop In Lane	0.45		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	717	0	621				0	1296	578	280	1040	0
V/C Ratio(X)	0.91	0.00	0.87				0.00	0.69	0.53	0.34	0.54	0.00
Avail Cap(c_a), veh/h	790	0	684				0	1296	578	280	1040	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.81	0.81	0.90	0.90	0.00
Uniform Delay (d), s/veh	34.9	0.0	34.0				0.0	26.1	24.3	42.4	9.5	0.0
Incr Delay (d2), s/veh	13.7	0.0	10.6				0.0	2.4	2.8	2.9	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.4	0.0	16.0				0.0	9.4	6.1	2.6	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	0.0	44.6				0.0	28.5	27.1	45.2	11.3	0.0
LnGrp LOS	D	A	D				A	C	C	D	B	A
Approach Vol, veh/h		1190						1197			652	
Approach Delay, s/veh		46.8						28.1			16.2	
Approach LOS		D						C			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	22.6	47.1	50.3	69.7								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	18.6	38.4	51.0	61.0								
Max Q Clear Time (g_c+I1), s	7.3	25.0	41.8	17.7								
Green Ext Time (p_c), s	0.1	6.1	4.5	4.2								

Intersection Summary

HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

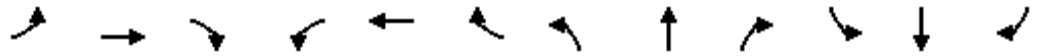
Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center

11/05/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↗		↗	↕	
Traffic Volume (veh/h)	9	5	9	126	10	111	15	466	245	424	407	8
Future Volume (veh/h)	9	5	9	126	10	111	15	466	245	424	407	8
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		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	11	6	11	148	12	131	18	548	288	499	479	9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	23	57	146	12	129	320	867	455	517	906	17
Arrive On Green	0.04	0.04	0.04	0.17	0.17	0.17	0.35	0.76	0.76	0.48	0.81	0.81
Sat Flow, veh/h	1191	650	1610	873	71	773	1810	2288	1201	1810	1859	35
Grp Volume(v), veh/h	17	0	11	291	0	0	18	432	404	499	0	488
Grp Sat Flow(s),veh/h/ln	1840	0	1610	1717	0	0	1810	1805	1684	1810	0	1894
Q Serve(g_s), s	1.1	0.0	0.8	20.0	0.0	0.0	0.8	13.3	13.4	32.1	0.0	10.1
Cycle Q Clear(g_c), s	1.1	0.0	0.8	20.0	0.0	0.0	0.8	13.3	13.4	32.1	0.0	10.1
Prop In Lane	0.65		1.00	0.51		0.45	1.00		0.71	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	57	286	0	0	320	684	638	517	0	923
V/C Ratio(X)	0.26	0.00	0.19	1.02	0.00	0.00	0.06	0.63	0.63	0.97	0.00	0.53
Avail Cap(c_a), veh/h	284	0	248	286	0	0	320	684	638	528	0	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.72	0.72	0.72	0.63	0.00	0.63
Uniform Delay (d), s/veh	56.3	0.0	56.2	50.0	0.0	0.0	32.1	10.6	10.6	30.8	0.0	6.7
Incr Delay (d2), s/veh	2.1	0.0	1.6	57.6	0.0	0.0	0.1	3.2	3.4	22.8	0.0	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	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	13.1	0.0	0.0	0.4	3.9	3.7	14.9	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	0.0	57.8	107.6	0.0	0.0	32.2	13.8	14.1	53.6	0.0	8.0
LnGrp LOS	E	A	E	F	A	A	C	B	B	D	A	A
Approach Vol, veh/h		28			291			854				987
Approach Delay, s/veh		58.2			107.6			14.3				31.0
Approach LOS		E			F			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	38.3	49.5		8.2	25.3	62.5		24.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	30.5		18.5	7.0	58.5		20.0				
Max Q Clear Time (g_c+I1), s	34.1	15.4		3.1	2.8	12.1		22.0				
Green Ext Time (p_c), s	0.2	4.9		0.0	0.0	3.6		0.0				

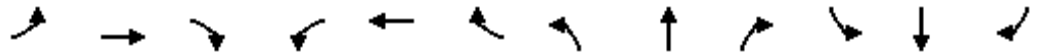
Intersection Summary

HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 Int.2: Moreno Beach Dr & SR-60 EB Ramps

Moreno Valley Trade Center

10/29/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↑↑	↗	↘	↑	
Traffic Volume (veh/h)	333	8	749	0	0	0	0	954	302	86	535	0
Future Volume (veh/h)	333	8	749	0	0	0	0	954	302	86	535	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	340	320	556				0	973	308	88	546	0
Peak Hour Factor	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
Cap, veh/h	368	346	620				0	1298	579	280	1041	0
Arrive On Green	0.39	0.39	0.39				0.00	0.12	0.12	0.21	0.73	0.00
Sat Flow, veh/h	954	898	1610				0	3705	1610	1810	1900	0
Grp Volume(v), veh/h	660	0	556				0	973	308	88	546	0
Grp Sat Flow(s),veh/h/ln	1852	0	1610				0	1805	1610	1810	1900	0
Q Serve(g_s), s	40.8	0.0	38.9				0.0	31.3	21.6	5.0	15.1	0.0
Cycle Q Clear(g_c), s	40.8	0.0	38.9				0.0	31.3	21.6	5.0	15.1	0.0
Prop In Lane	0.52		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	714	0	620				0	1298	579	280	1041	0
V/C Ratio(X)	0.92	0.00	0.90				0.00	0.75	0.53	0.31	0.52	0.00
Avail Cap(c_a), veh/h	756	0	657				0	1298	579	280	1041	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.80	0.80	0.88	0.88	0.00
Uniform Delay (d), s/veh	35.2	0.0	34.6				0.0	47.6	43.4	42.2	9.4	0.0
Incr Delay (d2), s/veh	16.6	0.0	14.5				0.0	3.2	2.8	2.6	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.3	0.0	17.4				0.0	15.8	9.8	2.4	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	0.0	49.1				0.0	50.9	46.2	44.8	11.1	0.0
LnGrp LOS	D	A	D				A	D	D	D	B	A
Approach Vol, veh/h		1216						1281			634	
Approach Delay, s/veh		50.6						49.7			15.8	
Approach LOS		D						D			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	22.6	47.2	50.2	69.8								
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0								
Max Green Setting (Gmax), s	18.6	40.4	49.0	63.0								
Max Q Clear Time (g_c+I1), s	7.0	33.3	42.8	17.1								
Green Ext Time (p_c), s	0.1	4.2	3.4	4.1								

Intersection Summary

HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

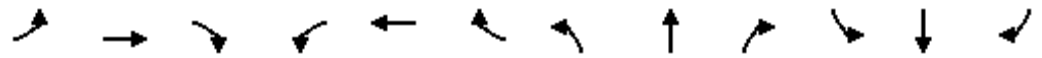
Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 Int.10: Redlands Blvd & SR-60 WB Ramps

Moreno Valley Trade Center

11/05/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↔		↖	↕		↖	↗	
Traffic Volume (veh/h)	9	7	3	97	0	46	4	810	357	446	505	9
Future Volume (veh/h)	9	7	3	97	0	46	4	810	357	446	505	9
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		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	9	7	3	99	0	47	4	827	364	455	515	9
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	28	22	44	119	0	57	13	773	339	763	1360	24
Arrive On Green	0.03	0.03	0.03	0.10	0.00	0.10	0.00	0.21	0.21	0.84	1.00	1.00
Sat Flow, veh/h	1040	809	1610	1180	0	560	1810	2442	1071	1810	1862	33
Grp Volume(v), veh/h	16	0	3	146	0	0	4	611	580	455	0	524
Grp Sat Flow(s),veh/h/ln	1848	0	1610	1740	0	0	1810	1805	1707	1810	0	1894
Q Serve(g_s), s	1.0	0.0	0.2	9.9	0.0	0.0	0.3	38.0	38.0	9.5	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.2	9.9	0.0	0.0	0.3	38.0	38.0	9.5	0.0	0.0
Prop In Lane	0.56		1.00	0.68		0.32	1.00		0.63	1.00		0.02
Lane Grp Cap(c), veh/h	51	0	44	176	0	0	13	572	541	763	0	1384
V/C Ratio(X)	0.32	0.00	0.07	0.83	0.00	0.00	0.30	1.07	1.07	0.60	0.00	0.38
Avail Cap(c_a), veh/h	285	0	248	268	0	0	106	572	541	763	0	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.67	0.67	0.67	0.57	0.00	0.57
Uniform Delay (d), s/veh	57.3	0.0	56.9	52.9	0.0	0.0	59.4	47.3	47.3	6.2	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.6	12.2	0.0	0.0	8.4	50.7	53.3	0.7	0.0	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	0.5	0.0	0.1	4.9	0.0	0.0	0.2	25.7	24.7	2.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	0.0	57.5	65.1	0.0	0.0	67.8	98.0	100.6	6.9	0.0	0.5
LnGrp LOS	E	A	E	E	A	A	E	F	F	A	A	A
Approach Vol, veh/h		19			146			1195				979
Approach Delay, s/veh		60.3			65.1			99.1				3.5
Approach LOS		E			E			F				A
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	54.6	42.0		7.3	4.9	91.7		16.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	29.0	38.0		18.5	7.0	60.0		18.5				
Max Q Clear Time (g_c+I1), s	11.5	40.0		3.0	2.3	2.0		11.9				
Green Ext Time (p_c), s	1.4	0.0		0.0	0.0	3.9		0.4				

Intersection Summary

HCM 6th Ctrl Delay	56.7
HCM 6th LOS	E

APPENDIX D: LEVEL OF SERVICE WORKSHEETS (FREEWAY)

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4727	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1406
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	21.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3889	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1156
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3254	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	968
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3538	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1052
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.45
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4470	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1329
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5455	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2163
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.92
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	38.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5457	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2164
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.92
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	38.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5677	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2251
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	54.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	41.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6008	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2382
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.01
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	1.70	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4805	631	66	556
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5715	751	79	661
Weaving Flow Rate (vw), pc/h	1412	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5794	Density-Based Capacity (cIWL), pc/h/ln		2110
Total Flow Rate (v), pc/h	7206	Demand Flow-Based Capacity (cIW), pc/h		12245
Volume Ratio (VR)	0.196	Weaving Segment Capacity (cw), veh/h		7469
Minimum Lane Change Rate (LCMIN), lc/h	661	Adjusted Weaving Area Capacity, pc/h		8440
Maximum Weaving Length (LMAX), ft	4495	Volume-to-Capacity Ratio (v/c)		0.85

Speed and Density

Non-Weaving Vehicle Index (INW)	689	Average Weaving Speed (Sw), mi/h	52.6
Non-Weaving Lane Change Rate (LCNW), lc/h	803	Average Non-Weaving Speed (SNW), mi/h	56.6
Weaving Lane Change Rate (LCW), lc/h	937	Average Speed (S), mi/h	55.8
Weaving Lane Change Rate (LCAII), lc/h	1740	Density (D), pc/mi/ln	32.3
Weaving Intensity Factor (W)	0.464	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5587	1283	48	564
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6645	1526	57	671
Weaving Flow Rate (vw), pc/h	2197	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6702	Density-Based Capacity (cIWL), pc/h/ln		2220
Total Flow Rate (v), pc/h	8899	Demand Flow-Based Capacity (cIW), pc/h		14170
Volume Ratio (VR)	0.247	Weaving Segment Capacity (cw), veh/h		9824
Minimum Lane Change Rate (LCMIN), lc/h	1526	Adjusted Weaving Area Capacity, pc/h		11101
Maximum Weaving Length (LMAX), ft	3456	Volume-to-Capacity Ratio (v/c)		0.80

Speed and Density

Non-Weaving Vehicle Index (INW)	1474	Average Weaving Speed (Sw), mi/h	49.4
Non-Weaving Lane Change Rate (LCNW), lc/h	1595	Average Non-Weaving Speed (SNW), mi/h	50.5
Weaving Lane Change Rate (LCW), lc/h	2190	Average Speed (S), mi/h	50.2
Weaving Lane Change Rate (LCAII), lc/h	3785	Density (D), pc/mi/ln	35.5
Weaving Intensity Factor (W)	0.599	Level of Service (LOS)	E

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6426	396	19	444
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7643	471	23	528
Weaving Flow Rate (vw), pc/h	999	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7666	Density-Based Capacity (cIWL), pc/h/ln		2217
Total Flow Rate (v), pc/h	8665	Demand Flow-Based Capacity (cIW), pc/h		20870
Volume Ratio (VR)	0.115	Weaving Segment Capacity (cW), veh/h		9810
Minimum Lane Change Rate (LCMIN), Ic/h	999	Adjusted Weaving Area Capacity, pc/h		11085
Maximum Weaving Length (LMAX), ft	3686	Volume-to-Capacity Ratio (v/c)		0.78

Speed and Density

Non-Weaving Vehicle Index (INW)	1993	Average Weaving Speed (SW), mi/h	48.0
Non-Weaving Lane Change Rate (LCNW), Ic/h	3399	Average Non-Weaving Speed (SNW), mi/h	54.5
Weaving Lane Change Rate (LCW), Ic/h	1742	Average Speed (S), mi/h	53.7
Weaving Lane Change Rate (LCAII), Ic/h	5141	Density (D), pc/mi/ln	32.3
Weaving Intensity Factor (W)	0.669	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6146	253	14	676
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7310	301	17	804
Weaving Flow Rate (vw), pc/h	1105	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7327	Density-Based Capacity (cIWL), pc/h/ln		2190
Total Flow Rate (v), pc/h	8432	Demand Flow-Based Capacity (cIW), pc/h		18321
Volume Ratio (VR)	0.131	Weaving Segment Capacity (cw), veh/h		9691
Minimum Lane Change Rate (LCMIN), Ic/h	804	Adjusted Weaving Area Capacity, pc/h		10950
Maximum Weaving Length (LMAX), ft	3843	Volume-to-Capacity Ratio (v/c)		0.77

Speed and Density

Non-Weaving Vehicle Index (INW)	1612	Average Weaving Speed (SW), mi/h	49.7
Non-Weaving Lane Change Rate (LCNW), Ic/h	2189	Average Non-Weaving Speed (SNW), mi/h	56.1
Weaving Lane Change Rate (LCW), Ic/h	1468	Average Speed (S), mi/h	55.2
Weaving Lane Change Rate (LCAII), Ic/h	3657	Density (D), pc/mi/ln	30.6
Weaving Intensity Factor (W)	0.583	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6599	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1962
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	2800	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5466	403	20	508
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6501	479	24	604
Weaving Flow Rate (vw), pc/h	1083	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6525	Density-Based Capacity (cIWL), pc/h/ln		2312
Total Flow Rate (v), pc/h	7608	Demand Flow-Based Capacity (cIW), pc/h		16901
Volume Ratio (VR)	0.142	Weaving Segment Capacity (cW), veh/h		10231
Minimum Lane Change Rate (LCMIN), lc/h	604	Adjusted Weaving Area Capacity, pc/h		11560
Maximum Weaving Length (LMAX), ft	3952	Volume-to-Capacity Ratio (v/c)		0.66

Speed and Density

Non-Weaving Vehicle Index (INW)	3654	Average Weaving Speed (SW), mi/h	55.7
Non-Weaving Lane Change Rate (LCNW), lc/h	3144	Average Non-Weaving Speed (SNW), mi/h	58.3
Weaving Lane Change Rate (LCW), lc/h	1778	Average Speed (S), mi/h	57.9
Weaving Lane Change Rate (LCAII), lc/h	4922	Density (D), pc/mi/ln	26.3
Weaving Intensity Factor (W)	0.353	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5869	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1745
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2683	1251	29	275
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3191	1488	34	327
Weaving Flow Rate (vw), pc/h	1815	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3225	Density-Based Capacity (cIWL), pc/h/ln		2135
Total Flow Rate (v), pc/h	5040	Demand Flow-Based Capacity (cIW), pc/h		9722
Volume Ratio (VR)	0.360	Weaving Segment Capacity (cw), veh/h		8604
Minimum Lane Change Rate (LCMIN), lc/h	1488	Adjusted Weaving Area Capacity, pc/h		9722
Maximum Weaving Length (LMAX), ft	4670	Volume-to-Capacity Ratio (v/c)		0.52

Speed and Density

Non-Weaving Vehicle Index (INW)	774	Average Weaving Speed (Sw), mi/h	54.0
Non-Weaving Lane Change Rate (LCNW), lc/h	352	Average Non-Weaving Speed (SNW), mi/h	54.4
Weaving Lane Change Rate (LCW), lc/h	2192	Average Speed (S), mi/h	54.3
Weaving Lane Change Rate (LCAII), lc/h	2544	Density (D), pc/mi/ln	18.6
Weaving Intensity Factor (W)	0.409	Level of Service (LOS)	B

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2401	391	21	1533
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2856	465	25	1823
Weaving Flow Rate (vw), pc/h	2288	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2881	Density-Based Capacity (cIWL), pc/h/ln		2063
Total Flow Rate (v), pc/h	5169	Demand Flow-Based Capacity (cIW), pc/h		7901
Volume Ratio (VR)	0.443	Weaving Segment Capacity (cW), veh/h		6992
Minimum Lane Change Rate (LCMIN), Ic/h	465	Adjusted Weaving Area Capacity, pc/h		7901
Maximum Weaving Length (LMAX), ft	5602	Volume-to-Capacity Ratio (v/c)		0.65

Speed and Density

Non-Weaving Vehicle Index (INW)	691	Average Weaving Speed (SW), mi/h	58.9
Non-Weaving Lane Change Rate (LCNW), Ic/h	473	Average Non-Weaving Speed (SNW), mi/h	60.4
Weaving Lane Change Rate (LCW), Ic/h	916	Average Speed (S), mi/h	59.7
Weaving Lane Change Rate (LCAII), Ic/h	1389	Density (D), pc/mi/ln	21.6
Weaving Intensity Factor (W)	0.254	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2792	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1660
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2492	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1482
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2236	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1330
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1707	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	677
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.29
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	10.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1287	420
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1531	500
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.21	0.25

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.473
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	310
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	56.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.699	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1221	Ramp Junction Speed (S), mi/h	60.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.5
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.0

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1287	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	766
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.33
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	11.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1287	124
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1531	147
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.35	0.07

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.293
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1531	Ramp Junction Speed (S), mi/h	61.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	1678	Average Density (D), pc/mi/ln	13.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	14.2

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1411	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	839
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.36
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	13.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1221	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	726
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	11.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1221	93
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1452	111
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.33	0.06

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.284
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	62.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1452	Ramp Junction Speed (S), mi/h	62.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	1563	Average Density (D), pc/mi/ln	12.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	12.7

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1314	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	782
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.33
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	12.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1462	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	870
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	13.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1397	65
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1662	77
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.35	0.04

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.435
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1662	Ramp Junction Speed (S), mi/h	57.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	14.4
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.0

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1397	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	831
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.35
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	12.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center- Westbound-Redlands Blvd. On- Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1397	492
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1662	585
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.47	0.29

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.298
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1662	Ramp Junction Speed (S), mi/h	61.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	2247	Average Density (D), pc/mi/ln	18.2
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.5

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1889	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1124
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center- Westbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1803	86
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2145	102
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.45	0.05

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.437
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	2145	Ramp Junction Speed (S), mi/h	57.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	18.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	21.1

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1803	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1072
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2070	415	5	153
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2462	494	6	182
Weaving Flow Rate (vw), pc/h	676	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2468	Density-Based Capacity (cIWL), pc/h/ln		2194
Total Flow Rate (v), pc/h	3144	Demand Flow-Based Capacity (cIW), pc/h		11163
Volume Ratio (VR)	0.215	Weaving Segment Capacity (cW), veh/h		5825
Minimum Lane Change Rate (LCMIN), Ic/h	182	Adjusted Weaving Area Capacity, pc/h		6582
Maximum Weaving Length (LMAX), ft	4690	Volume-to-Capacity Ratio (v/c)		0.48

Speed and Density

Non-Weaving Vehicle Index (INW)	987	Average Weaving Speed (SW), mi/h	61.5
Non-Weaving Lane Change Rate (LCNW), Ic/h	1015	Average Non-Weaving Speed (SNW), mi/h	63.7
Weaving Lane Change Rate (LCW), Ic/h	531	Average Speed (S), mi/h	63.2
Weaving Lane Change Rate (LCAII), Ic/h	1546	Density (D), pc/mi/ln	16.6
Weaving Intensity Factor (W)	0.184	Level of Service (LOS)	B

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Nason St. Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2485	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1478
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2456	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1460
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1997	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1188
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2103	692	34	385
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2501	823	40	458
Weaving Flow Rate (vw), pc/h	1281	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2541	Density-Based Capacity (cIWL), pc/h/ln		2097
Total Flow Rate (v), pc/h	3822	Demand Flow-Based Capacity (cIW), pc/h		7164
Volume Ratio (VR)	0.335	Weaving Segment Capacity (cW), veh/h		5568
Minimum Lane Change Rate (LCMIN), lc/h	1281	Adjusted Weaving Area Capacity, pc/h		6292
Maximum Weaving Length (LMAX), ft	5962	Volume-to-Capacity Ratio (v/c)		0.61

Speed and Density

Non-Weaving Vehicle Index (INW)	1016	Average Weaving Speed (SW), mi/h	57.9
Non-Weaving Lane Change Rate (LCNW), lc/h	1030	Average Non-Weaving Speed (SNW), mi/h	54.7
Weaving Lane Change Rate (LCW), lc/h	1630	Average Speed (S), mi/h	55.7
Weaving Lane Change Rate (LCAII), lc/h	2660	Density (D), pc/mi/ln	22.9
Weaving Intensity Factor (W)	0.283	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2400	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1428
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5252	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1562
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6107	1056	55	598
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7264	1256	65	711
Weaving Flow Rate (vw), pc/h	1967	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7329	Density-Based Capacity (cIWL), pc/h/ln		2316
Total Flow Rate (v), pc/h	9296	Demand Flow-Based Capacity (cIW), pc/h		16509
Volume Ratio (VR)	0.212	Weaving Segment Capacity (cW), veh/h		8199
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		9264
Maximum Weaving Length (LMAX), ft	3093	Volume-to-Capacity Ratio (v/c)		1.00

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5297	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1575
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5154	1003	28	554
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6130	1193	33	659
Weaving Flow Rate (vw), pc/h	1852	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6163	Density-Based Capacity (cIWL), pc/h/ln		2113
Total Flow Rate (v), pc/h	8015	Demand Flow-Based Capacity (cIW), pc/h		10390
Volume Ratio (VR)	0.231	Weaving Segment Capacity (cW), veh/h		7480
Minimum Lane Change Rate (LCMIN), Ic/h	1852	Adjusted Weaving Area Capacity, pc/h		8452
Maximum Weaving Length (LMAX), ft	4856	Volume-to-Capacity Ratio (v/c)		0.95

Speed and Density

Non-Weaving Vehicle Index (INW)	1356	Average Weaving Speed (SW), mi/h	50.1
Non-Weaving Lane Change Rate (LCNW), Ic/h	1265	Average Non-Weaving Speed (SNW), mi/h	47.0
Weaving Lane Change Rate (LCW), Ic/h	2277	Average Speed (S), mi/h	47.7
Weaving Lane Change Rate (LCAII), Ic/h	3542	Density (D), pc/mi/ln	42.0
Weaving Intensity Factor (W)	0.569	Level of Service (LOS)	E

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5688	209	11	469
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6765	249	13	558
Weaving Flow Rate (vw), pc/h	807	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6778	Density-Based Capacity (cIWL), pc/h/ln		2352
Total Flow Rate (v), pc/h	7585	Demand Flow-Based Capacity (cIW), pc/h		33019
Volume Ratio (VR)	0.106	Weaving Segment Capacity (cW), veh/h		10408
Minimum Lane Change Rate (LCMIN), Ic/h	249	Adjusted Weaving Area Capacity, pc/h		11760
Maximum Weaving Length (LMAX), ft	2032	Volume-to-Capacity Ratio (v/c)		0.64

Speed and Density

Non-Weaving Vehicle Index (INW)	1898	Average Weaving Speed (SW), mi/h	51.1
Non-Weaving Lane Change Rate (LCNW), Ic/h	3040	Average Non-Weaving Speed (SNW), mi/h	60.9
Weaving Lane Change Rate (LCW), Ic/h	1028	Average Speed (S), mi/h	59.7
Weaving Lane Change Rate (LCAII), Ic/h	4068	Density (D), pc/mi/ln	25.4
Weaving Intensity Factor (W)	0.524	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center- Westbound-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4754	1020	88	1143
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5654	1213	105	1360
Weaving Flow Rate (vw), pc/h	2573	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5759	Density-Based Capacity (cIWL), pc/h/ln		2173
Total Flow Rate (v), pc/h	8332	Demand Flow-Based Capacity (cIW), pc/h		11327
Volume Ratio (VR)	0.309	Weaving Segment Capacity (cW), veh/h		9616
Minimum Lane Change Rate (LCMIN), Ic/h	1213	Adjusted Weaving Area Capacity, pc/h		10866
Maximum Weaving Length (LMAX), ft	4115	Volume-to-Capacity Ratio (v/c)		0.77

Speed and Density

Non-Weaving Vehicle Index (INW)	1325	Average Weaving Speed (SW), mi/h	52.7
Non-Weaving Lane Change Rate (LCNW), Ic/h	928	Average Non-Weaving Speed (SNW), mi/h	53.3
Weaving Lane Change Rate (LCW), Ic/h	1898	Average Speed (S), mi/h	53.1
Weaving Lane Change Rate (LCAII), Ic/h	2826	Density (D), pc/mi/ln	31.4
Weaving Intensity Factor (W)	0.459	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6338	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2513
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5830	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2311
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.98
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	53.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	43.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4223	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1674
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4059	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1609
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.68
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3889	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1156
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3862	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1148
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3845	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1143
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4558	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1355
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4394	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1045
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.44
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5166	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1536
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4218	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1254
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3499	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1040
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.44
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3822	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1136
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4307	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1281
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5263	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2087
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.89
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5265	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2087
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.89
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5480	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2173
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.92
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	38.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6437	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2552
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.09
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	0.33	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3827	548	61	551
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4552	652	73	655
Weaving Flow Rate (vw), pc/h	1307	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4625	Density-Based Capacity (cIWL), pc/h/ln		2091
Total Flow Rate (v), pc/h	5932	Demand Flow-Based Capacity (cIW), pc/h		10909
Volume Ratio (VR)	0.220	Weaving Segment Capacity (cw), veh/h		7402
Minimum Lane Change Rate (LCMIN), lc/h	655	Adjusted Weaving Area Capacity, pc/h		8364
Maximum Weaving Length (LMAX), ft	4742	Volume-to-Capacity Ratio (v/c)		0.71

Speed and Density

Non-Weaving Vehicle Index (INW)	108	Average Weaving Speed (Sw), mi/h	54.7
Non-Weaving Lane Change Rate (LCNW), lc/h	562	Average Non-Weaving Speed (SNW), mi/h	58.2
Weaving Lane Change Rate (LCW), lc/h	812	Average Speed (S), mi/h	57.4
Weaving Lane Change Rate (LCAII), lc/h	1374	Density (D), pc/mi/ln	25.8
Weaving Intensity Factor (W)	0.385	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91 to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5248	906	34	415
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6242	1078	40	494
Weaving Flow Rate (vw), pc/h	1572	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6282	Density-Based Capacity (cIWL), pc/h/ln		2257
Total Flow Rate (v), pc/h	7854	Demand Flow-Based Capacity (cIW), pc/h		17500
Volume Ratio (VR)	0.200	Weaving Segment Capacity (cw), veh/h		9987
Minimum Lane Change Rate (LCMIN), lc/h	1078	Adjusted Weaving Area Capacity, pc/h		11285
Maximum Weaving Length (LMAX), ft	2970	Volume-to-Capacity Ratio (v/c)		0.70

Speed and Density

Non-Weaving Vehicle Index (INW)	1382	Average Weaving Speed (Sw), mi/h	51.9
Non-Weaving Lane Change Rate (LCNW), lc/h	1200	Average Non-Weaving Speed (SNW), mi/h	54.7
Weaving Lane Change Rate (LCW), lc/h	1742	Average Speed (S), mi/h	54.1
Weaving Lane Change Rate (LCAII), lc/h	2942	Density (D), pc/mi/ln	29.0
Weaving Intensity Factor (W)	0.491	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5686	853	23	469
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6763	1015	27	558
Weaving Flow Rate (vw), pc/h	1573	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6790	Density-Based Capacity (cIWL), pc/h/ln		2162
Total Flow Rate (v), pc/h	8363	Demand Flow-Based Capacity (cIW), pc/h		12766
Volume Ratio (VR)	0.188	Weaving Segment Capacity (cw), veh/h		9567
Minimum Lane Change Rate (LCMIN), lc/h	1015	Adjusted Weaving Area Capacity, pc/h		10810
Maximum Weaving Length (LMAX), ft	4414	Volume-to-Capacity Ratio (v/c)		0.77

Speed and Density

Non-Weaving Vehicle Index (INW)	1765	Average Weaving Speed (Sw), mi/h	49.6
Non-Weaving Lane Change Rate (LCNW), lc/h	2616	Average Non-Weaving Speed (SNW), mi/h	54.7
Weaving Lane Change Rate (LCW), lc/h	1758	Average Speed (S), mi/h	53.7
Weaving Lane Change Rate (LCAII), lc/h	4374	Density (D), pc/mi/ln	31.1
Weaving Intensity Factor (W)	0.589	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6272	712	11	267
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7460	847	13	318
Weaving Flow Rate (vw), pc/h	1165	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7473	Density-Based Capacity (cIWL), pc/h/ln		2187
Total Flow Rate (v), pc/h	8638	Demand Flow-Based Capacity (cIW), pc/h		17778
Volume Ratio (VR)	0.135	Weaving Segment Capacity (cW), veh/h		9677
Minimum Lane Change Rate (LCMIN), Ic/h	318	Adjusted Weaving Area Capacity, pc/h		10934
Maximum Weaving Length (LMAX), ft	3882	Volume-to-Capacity Ratio (v/c)		0.79

Speed and Density

Non-Weaving Vehicle Index (INW)	1644	Average Weaving Speed (SW), mi/h	50.7
Non-Weaving Lane Change Rate (LCNW), Ic/h	2328	Average Non-Weaving Speed (SNW), mi/h	59.4
Weaving Lane Change Rate (LCW), Ic/h	982	Average Speed (S), mi/h	58.1
Weaving Lane Change Rate (LCAII), Ic/h	3310	Density (D), pc/mi/ln	29.7
Weaving Intensity Factor (W)	0.539	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7891	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2346
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.00
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	2800	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	7252	1160	23	443
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8626	1380	27	527
Weaving Flow Rate (vw), pc/h	1907	Freeway Max Capacity (cIFL), pc/h/ln	2400	
Non-Weaving Flow Rate (vNW), pc/h	8653	Density-Based Capacity (cIWL), pc/h/ln	2282	
Total Flow Rate (v), pc/h	10560	Demand Flow-Based Capacity (cIW), pc/h	13260	
Volume Ratio (VR)	0.181	Weaving Segment Capacity (cW), veh/h	10098	
Minimum Lane Change Rate (LCMIN), Ic/h	527	Adjusted Weaving Area Capacity, pc/h	11410	
Maximum Weaving Length (LMAX), ft	4343	Volume-to-Capacity Ratio (v/c)	0.93	

Speed and Density

Non-Weaving Vehicle Index (INW)	4846	Average Weaving Speed (SW), mi/h	55.0
Non-Weaving Lane Change Rate (LCNW), Ic/h	3619	Average Non-Weaving Speed (SNW), mi/h	56.1
Weaving Lane Change Rate (LCW), Ic/h	1701	Average Speed (S), mi/h	55.9
Weaving Lane Change Rate (LCAII), Ic/h	5320	Density (D), pc/mi/ln	37.8
Weaving Intensity Factor (W)	0.375	Level of Service (LOS)	E

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8412	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2501
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4012	1013	28	583
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4772	1205	33	693
Weaving Flow Rate (vw), pc/h	1898	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4805	Density-Based Capacity (cIWL), pc/h/ln		2198
Total Flow Rate (v), pc/h	6703	Demand Flow-Based Capacity (cIW), pc/h		12367
Volume Ratio (VR)	0.283	Weaving Segment Capacity (cw), veh/h		9726
Minimum Lane Change Rate (LCMIN), lc/h	1205	Adjusted Weaving Area Capacity, pc/h		10990
Maximum Weaving Length (LMAX), ft	3836	Volume-to-Capacity Ratio (v/c)		0.61

Speed and Density

Non-Weaving Vehicle Index (INW)	1153	Average Weaving Speed (Sw), mi/h	53.9
Non-Weaving Lane Change Rate (LCNW), lc/h	677	Average Non-Weaving Speed (SNW), mi/h	54.9
Weaving Lane Change Rate (LCW), lc/h	1909	Average Speed (S), mi/h	54.6
Weaving Lane Change Rate (LCAII), lc/h	2586	Density (D), pc/mi/ln	24.6
Weaving Intensity Factor (W)	0.414	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3938	691	36	1087
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4684	822	43	1293
Weaving Flow Rate (vw), pc/h	2115	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4727	Density-Based Capacity (cIWL), pc/h/ln		2177
Total Flow Rate (v), pc/h	6842	Demand Flow-Based Capacity (cIW), pc/h		11327
Volume Ratio (VR)	0.309	Weaving Segment Capacity (cw), veh/h		7707
Minimum Lane Change Rate (LCMIN), lc/h	822	Adjusted Weaving Area Capacity, pc/h		8708
Maximum Weaving Length (LMAX), ft	4115	Volume-to-Capacity Ratio (v/c)		0.79

Speed and Density

Non-Weaving Vehicle Index (INW)	1134	Average Weaving Speed (Sw), mi/h	55.6
Non-Weaving Lane Change Rate (LCNW), lc/h	854	Average Non-Weaving Speed (SNW), mi/h	55.9
Weaving Lane Change Rate (LCW), lc/h	1273	Average Speed (S), mi/h	55.8
Weaving Lane Change Rate (LCAII), lc/h	2127	Density (D), pc/mi/ln	30.7
Weaving Intensity Factor (W)	0.355	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2792	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1660
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3314	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1971
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2880	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1713
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2204	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	874
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	13.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1626	578
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1934	687
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.27	0.34

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.490
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	399
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	56.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.680	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1535	Ramp Junction Speed (S), mi/h	59.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	10.8
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	15.7

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1626	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	967
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	15.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1626	173
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1934	206
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.45	0.10

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.305
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1934	Ramp Junction Speed (S), mi/h	61.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2140	Average Density (D), pc/mi/ln	17.4
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.8

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1799	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1070
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1269	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	754
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.32
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	11.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1269	101
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1509	120
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.34	0.06

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.285
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	62.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1509	Ramp Junction Speed (S), mi/h	62.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	1629	Average Density (D), pc/mi/ln	13.1
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.2

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1370	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	814
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.35
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	12.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1601	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	952
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1559	42
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1854	50
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.39	0.03

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.432
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1854	Ramp Junction Speed (S), mi/h	57.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	16.0
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	18.6

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1559	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	927
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center- Westbound-Redlands Blvd. On- Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1559	468
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1854	557
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.50	0.28

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.305
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1854	Ramp Junction Speed (S), mi/h	61.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2411	Average Density (D), pc/mi/ln	19.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	18.8

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2027	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1206
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1931	96
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2297	114
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.48	0.06

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.438
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	2297	Ramp Junction Speed (S), mi/h	57.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	19.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.4

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1931	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1148
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2188	446	6	195
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2602	530	7	232
Weaving Flow Rate (vw), pc/h	762	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2609	Density-Based Capacity (cIWL), pc/h/ln		2186
Total Flow Rate (v), pc/h	3371	Demand Flow-Based Capacity (cIW), pc/h		10619
Volume Ratio (VR)	0.226	Weaving Segment Capacity (cW), veh/h		5804
Minimum Lane Change Rate (LCMIN), lc/h	232	Adjusted Weaving Area Capacity, pc/h		6558
Maximum Weaving Length (LMAX), ft	4804	Volume-to-Capacity Ratio (v/c)		0.51

Speed and Density

Non-Weaving Vehicle Index (INW)	1044	Average Weaving Speed (SW), mi/h	61.1
Non-Weaving Lane Change Rate (LCNW), lc/h	1044	Average Non-Weaving Speed (SNW), mi/h	62.9
Weaving Lane Change Rate (LCW), lc/h	581	Average Speed (S), mi/h	62.5
Weaving Lane Change Rate (LCAII), lc/h	1625	Density (D), pc/mi/ln	18.0
Weaving Intensity Factor (W)	0.192	Level of Service (LOS)	B

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Nason St. Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2634	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1566
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2865	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1704
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2678	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1592
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.68
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2609	352	19	677
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3103	419	23	805
Weaving Flow Rate (vw), pc/h	1224	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3126	Density-Based Capacity (cIWL), pc/h/ln		2141
Total Flow Rate (v), pc/h	4350	Demand Flow-Based Capacity (cIW), pc/h		8541
Volume Ratio (VR)	0.281	Weaving Segment Capacity (cW), veh/h		5684
Minimum Lane Change Rate (LCMIN), Ic/h	1224	Adjusted Weaving Area Capacity, pc/h		6423
Maximum Weaving Length (LMAX), ft	5381	Volume-to-Capacity Ratio (v/c)		0.68

Speed and Density

Non-Weaving Vehicle Index (INW)	1250	Average Weaving Speed (SW), mi/h	57.7
Non-Weaving Lane Change Rate (LCNW), Ic/h	1150	Average Non-Weaving Speed (SNW), mi/h	54.2
Weaving Lane Change Rate (LCW), Ic/h	1573	Average Speed (S), mi/h	55.1
Weaving Lane Change Rate (LCAII), Ic/h	2723	Density (D), pc/mi/ln	26.3
Weaving Intensity Factor (W)	0.288	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2993	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1780
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6677	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1986
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6706	670	35	520
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7976	797	42	618
Weaving Flow Rate (vw), pc/h	1415	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8018	Density-Based Capacity (cIWL), pc/h/ln		2364
Total Flow Rate (v), pc/h	9433	Demand Flow-Based Capacity (cIW), pc/h		23333
Volume Ratio (VR)	0.150	Weaving Segment Capacity (cW), veh/h		8369
Minimum Lane Change Rate (LCMIN), Ic/h	797	Adjusted Weaving Area Capacity, pc/h		9456
Maximum Weaving Length (LMAX), ft	2465	Volume-to-Capacity Ratio (v/c)		1.00

Speed and Density

Non-Weaving Vehicle Index (INW)	3207	Average Weaving Speed (SW), mi/h	52.7
Non-Weaving Lane Change Rate (LCNW), Ic/h	3477	Average Non-Weaving Speed (SNW), mi/h	52.9
Weaving Lane Change Rate (LCW), Ic/h	1417	Average Speed (S), mi/h	52.9
Weaving Lane Change Rate (LCAII), Ic/h	4894	Density (D), pc/mi/ln	44.6
Weaving Intensity Factor (W)	0.458	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4974	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1479
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4768	585	12	518
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5671	696	14	616
Weaving Flow Rate (vw), pc/h	1312	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5685	Density-Based Capacity (cIWL), pc/h/ln		2146
Total Flow Rate (v), pc/h	6997	Demand Flow-Based Capacity (cIW), pc/h		12766
Volume Ratio (VR)	0.188	Weaving Segment Capacity (cW), veh/h		7597
Minimum Lane Change Rate (LCMIN), lc/h	1312	Adjusted Weaving Area Capacity, pc/h		8584
Maximum Weaving Length (LMAX), ft	4414	Volume-to-Capacity Ratio (v/c)		0.82

Speed and Density

Non-Weaving Vehicle Index (INW)	1251	Average Weaving Speed (SW), mi/h	52.6
Non-Weaving Lane Change Rate (LCNW), lc/h	997	Average Non-Weaving Speed (SNW), mi/h	52.2
Weaving Lane Change Rate (LCW), lc/h	1737	Average Speed (S), mi/h	52.3
Weaving Lane Change Rate (LCAII), lc/h	2734	Density (D), pc/mi/ln	33.4
Weaving Intensity Factor (W)	0.464	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4943	434	22	410
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5879	516	26	488
Weaving Flow Rate (vw), pc/h	1004	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5905	Density-Based Capacity (cIWL), pc/h/ln		2322
Total Flow Rate (v), pc/h	6909	Demand Flow-Based Capacity (cIW), pc/h		24138
Volume Ratio (VR)	0.145	Weaving Segment Capacity (cw), veh/h		10275
Minimum Lane Change Rate (LCMIN), lc/h	516	Adjusted Weaving Area Capacity, pc/h		11610
Maximum Weaving Length (LMAX), ft	2416	Volume-to-Capacity Ratio (v/c)		0.60

Speed and Density

Non-Weaving Vehicle Index (INW)	1653	Average Weaving Speed (Sw), mi/h	52.8
Non-Weaving Lane Change Rate (LCNW), lc/h	2095	Average Non-Weaving Speed (SNW), mi/h	59.7
Weaving Lane Change Rate (LCW), lc/h	1295	Average Speed (S), mi/h	58.6
Weaving Lane Change Rate (LCAII), lc/h	3390	Density (D), pc/mi/ln	23.6
Weaving Intensity Factor (W)	0.454	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4452	886	92	926
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5295	1054	109	1101
Weaving Flow Rate (vw), pc/h	2155	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5404	Density-Based Capacity (cIWL), pc/h/ln		2193
Total Flow Rate (v), pc/h	7559	Demand Flow-Based Capacity (cIW), pc/h		12281
Volume Ratio (VR)	0.285	Weaving Segment Capacity (cw), veh/h		9704
Minimum Lane Change Rate (LCMIN), lc/h	1054	Adjusted Weaving Area Capacity, pc/h		10965
Maximum Weaving Length (LMAX), ft	3858	Volume-to-Capacity Ratio (v/c)		0.69

Speed and Density

Non-Weaving Vehicle Index (INW)	1243	Average Weaving Speed (Sw), mi/h	53.8
Non-Weaving Lane Change Rate (LCNW), lc/h	774	Average Non-Weaving Speed (SNW), mi/h	55.2
Weaving Lane Change Rate (LCW), lc/h	1739	Average Speed (S), mi/h	54.8
Weaving Lane Change Rate (LCAII), lc/h	2513	Density (D), pc/mi/ln	27.6
Weaving Intensity Factor (W)	0.419	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3413	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1353
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4298	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1704
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4602	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1825
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4421	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1753
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4218	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1254
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4185	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1244
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4166	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1239
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5016	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1492
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	Existing Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3905	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	929
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Conditions (Alt 2. Warehouse)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4800	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1427
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3961	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1178
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3326	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	989
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.42
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	15.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3610	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1074
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4542	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1350
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5527	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2191
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5531	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2193
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5751	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2280
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.97
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	54.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	42.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6082	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2411
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	1.70	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4879	633	66	556
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5803	753	79	661
Weaving Flow Rate (vw), pc/h	1414	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5882	Density-Based Capacity (ciWL), pc/h/ln		2111
Total Flow Rate (v), pc/h	7296	Demand Flow-Based Capacity (ciW), pc/h		12371
Volume Ratio (VR)	0.194	Weaving Segment Capacity (cw), veh/h		7473
Minimum Lane Change Rate (LCMIN), lc/h	661	Adjusted Weaving Area Capacity, pc/h		8444
Maximum Weaving Length (LMAX), ft	4475	Volume-to-Capacity Ratio (v/c)		0.86

Speed and Density

Non-Weaving Vehicle Index (INW)	700	Average Weaving Speed (SW), mi/h	52.5
Non-Weaving Lane Change Rate (LCNW), lc/h	821	Average Non-Weaving Speed (SNW), mi/h	56.5
Weaving Lane Change Rate (LCW), lc/h	937	Average Speed (S), mi/h	55.7
Weaving Lane Change Rate (LCAII), lc/h	1758	Density (D), pc/mi/ln	32.7
Weaving Intensity Factor (W)	0.467	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5663	1292	48	564
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6736	1537	57	671
Weaving Flow Rate (vw), pc/h	2208	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6793	Density-Based Capacity (ciWL), pc/h/ln		2221
Total Flow Rate (v), pc/h	9001	Demand Flow-Based Capacity (ciW), pc/h		14286
Volume Ratio (VR)	0.245	Weaving Segment Capacity (cw), veh/h		9828
Minimum Lane Change Rate (LCMIN), lc/h	1537	Adjusted Weaving Area Capacity, pc/h		11105
Maximum Weaving Length (LMAX), ft	3435	Volume-to-Capacity Ratio (v/c)		0.81

Speed and Density

Non-Weaving Vehicle Index (INW)	1494	Average Weaving Speed (SW), mi/h	49.1
Non-Weaving Lane Change Rate (LCNW), lc/h	1681	Average Non-Weaving Speed (SNW), mi/h	50.3
Weaving Lane Change Rate (LCW), lc/h	2201	Average Speed (S), mi/h	50.0
Weaving Lane Change Rate (LCAII), lc/h	3882	Density (D), pc/mi/ln	36.0
Weaving Intensity Factor (W)	0.611	Level of Service (LOS)	E

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center- Eastbound-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6511	396	19	444
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7744	471	23	528
Weaving Flow Rate (wv), pc/h	999	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7767	Density-Based Capacity (ciWL), pc/h/ln		2218
Total Flow Rate (v), pc/h	8766	Demand Flow-Based Capacity (ciW), pc/h		21053
Volume Ratio (VR)	0.114	Weaving Segment Capacity (cw), veh/h		9815
Minimum Lane Change Rate (LCMIN), lc/h	471	Adjusted Weaving Area Capacity, pc/h		11090
Maximum Weaving Length (LMAX), ft	3676	Volume-to-Capacity Ratio (v/c)		0.79

Speed and Density

Non-Weaving Vehicle Index (INW)	2019	Average Weaving Speed (SW), mi/h	49.0
Non-Weaving Lane Change Rate (LCNW), lc/h	3421	Average Non-Weaving Speed (SNW), mi/h	58.2
Weaving Lane Change Rate (LCW), lc/h	1214	Average Speed (S), mi/h	57.0
Weaving Lane Change Rate (LCAII), lc/h	4635	Density (D), pc/mi/ln	30.8
Weaving Intensity Factor (W)	0.616	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6231	253	14	676
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7411	301	17	804
Weaving Flow Rate (vw), pc/h	1105	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7428	Density-Based Capacity (ciWL), pc/h/ln		2192
Total Flow Rate (v), pc/h	8533	Demand Flow-Based Capacity (ciW), pc/h		18605
Volume Ratio (VR)	0.129	Weaving Segment Capacity (cw), veh/h		9700
Minimum Lane Change Rate (LCMIN), lc/h	804	Adjusted Weaving Area Capacity, pc/h		10960
Maximum Weaving Length (LMAX), ft	3823	Volume-to-Capacity Ratio (v/c)		0.78

Speed and Density

Non-Weaving Vehicle Index (INW)	1634	Average Weaving Speed (SW), mi/h	49.5
Non-Weaving Lane Change Rate (LCNW), lc/h	2285	Average Non-Weaving Speed (SNW), mi/h	56.0
Weaving Lane Change Rate (LCW), lc/h	1468	Average Speed (S), mi/h	55.1
Weaving Lane Change Rate (LCAI), lc/h	3753	Density (D), pc/mi/ln	31.0

Weaving Intensity Factor (W)	0.595	Level of Service (LOS)	D
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6687	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1988
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	2800	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5553	408	20	508
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6605	485	24	604
Weaving Flow Rate (wv), pc/h	1089	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6629	Density-Based Capacity (ciWL), pc/h/ln		2313
Total Flow Rate (v), pc/h	7718	Demand Flow-Based Capacity (ciW), pc/h		17021
Volume Ratio (VR)	0.141	Weaving Segment Capacity (cw), veh/h		10235
Minimum Lane Change Rate (LCMIN), lc/h	604	Adjusted Weaving Area Capacity, pc/h		11565
Maximum Weaving Length (LMAX), ft	3942	Volume-to-Capacity Ratio (v/c)		0.67

Speed and Density

Non-Weaving Vehicle Index (INW)	3712	Average Weaving Speed (SW), mi/h	55.6
Non-Weaving Lane Change Rate (LCNW), lc/h	3167	Average Non-Weaving Speed (SNW), mi/h	58.2
Weaving Lane Change Rate (LCW), lc/h	1778	Average Speed (S), mi/h	57.8
Weaving Lane Change Rate (LCAII), lc/h	4945	Density (D), pc/mi/ln	26.7
Weaving Intensity Factor (W)	0.354	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5961	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1772
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2776	1251	29	275
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3302	1488	34	327
Weaving Flow Rate (vw), pc/h	1815	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3336	Density-Based Capacity (ciWL), pc/h/ln		2141
Total Flow Rate (v), pc/h	5151	Demand Flow-Based Capacity (ciW), pc/h		9943
Volume Ratio (VR)	0.352	Weaving Segment Capacity (cw), veh/h		8800
Minimum Lane Change Rate (LCMIN), lc/h	1488	Adjusted Weaving Area Capacity, pc/h		9944
Maximum Weaving Length (LMAX), ft	4582	Volume-to-Capacity Ratio (v/c)		0.52

Speed and Density

Non-Weaving Vehicle Index (INW)	801	Average Weaving Speed (SW), mi/h	54.0
Non-Weaving Lane Change Rate (LCNW), lc/h	375	Average Non-Weaving Speed (SNW), mi/h	54.3
Weaving Lane Change Rate (LCW), lc/h	2192	Average Speed (S), mi/h	54.2
Weaving Lane Change Rate (LCAII), lc/h	2567	Density (D), pc/mi/ln	19.0
Weaving Intensity Factor (W)	0.412	Level of Service (LOS)	B

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2494	392	21	1533
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2966	466	25	1823
Weaving Flow Rate (wv), pc/h	2289	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2991	Density-Based Capacity (ciWL), pc/h/ln		2071
Total Flow Rate (v), pc/h	5280	Demand Flow-Based Capacity (ciW), pc/h		8065
Volume Ratio (VR)	0.434	Weaving Segment Capacity (cw), veh/h		7137
Minimum Lane Change Rate (LCMIN), lc/h	466	Adjusted Weaving Area Capacity, pc/h		8064
Maximum Weaving Length (LMAX), ft	5499	Volume-to-Capacity Ratio (v/c)		0.65

Speed and Density

Non-Weaving Vehicle Index (INW)	718	Average Weaving Speed (SW), mi/h	58.8
Non-Weaving Lane Change Rate (LCNW), lc/h	496	Average Non-Weaving Speed (SNW), mi/h	60.3
Weaving Lane Change Rate (LCW), lc/h	917	Average Speed (S), mi/h	59.6
Weaving Lane Change Rate (LCAII), lc/h	1413	Density (D), pc/mi/ln	22.1
Weaving Intensity Factor (W)	0.257	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2887	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1717
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2589	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1540
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.66
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2336	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1389
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	21.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1809	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	717
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	11.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1333	523
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1585	622
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.22	0.31

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.484
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	297
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	56.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.692	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1288	Ramp Junction Speed (S), mi/h	59.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.9

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.5
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

General Purpose Geometric Data

Number of General Purpose Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

General Purpose Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

General Purpose Demand and Capacity

Demand Volume veh/h	1333	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _{p,GP}), pc/h/ln	792
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.34
Passenger Car Equivalent (ET)	2.000		

General Purpose Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D _{GP}), pc/mi/ln	12.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

Managed Lane Geometric Data

Managed Lane Type	Continuous Access	Free-Flow Speed (FFS), mi/h	75.4
Number of Managed Lanes, In	1	Terrain Type	Level
Managed Lane Length, ft	5280	Percent Grade, %	-

Managed Lane Adjustment Factors

Driver Population	All Familiar	Driver Population CAF	1.000
Weather Type	Non-Severe Weather	Weather Type CAF	1.000

Driver Population SAF	1.000	Final Speed Adjustment Factor (SAF)	1.000
Weather Type SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Demand Adjustment Factor (DAF)	1.000		
Managed Lane Demand and Capacity			
Volume (V_{ML}), veh/h	0	Heavy Vehicle Adjustment Factor (f_{HV})	1.000
Peak Hour Factor	0.94	Flow Rate ($V_{p,ML}$), pc/h/ln	0
Total Trucks, %	0.00	Capacity (c), pc/h/ln	1804
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1804
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.00
Passenger Car Equivalent (E_T)	2.000		
Managed Lane Speed and Density			
Breakpoint (BP_{ML})	500	Indicator Variable (I_c)	-
Speed 1 (S_1), mi/h	75.4	Average Speed (S_{ML}), mi/h	75.4
Speed 2 (S_2), mi/h	-	Density (D_{ML}), pc/mi/ln	0.0
Speed 3 (S_3), mi/h	-	Level of Service (LOS)	A

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1333	124
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1585	147
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.36	0.07

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.294
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (VOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1585	Ramp Junction Speed (S), mi/h	61.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	1732	Average Density (D), pc/mi/ln	14.0

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	14.6
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1457	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	866
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	13.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1221	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	726
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	11.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1221	98
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1452	117
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.33	0.06

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.284
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	62.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1452	Ramp Junction Speed (S), mi/h	62.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	1569	Average Density (D), pc/mi/ln	12.7

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	12.7
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1319	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	784
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.33
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	12.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1478	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	879
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.38
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	13.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1397	81
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1662	96
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.35	0.05

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.437
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1662	Ramp Junction Speed (S), mi/h	57.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	14.4

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.0
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1397	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	831
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.35
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	12.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1397	506
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1662	602
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.47	0.30

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.299
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1662	Ramp Junction Speed (S), mi/h	61.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	2264	Average Density (D), pc/mi/ln	18.4

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.6
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1903	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1132
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1817	86
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2161	102
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.45	0.05

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.437
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	2161	Ramp Junction Speed (S), mi/h	57.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	18.7

Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	21.3
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1817	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1080
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2084	431	5	153
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2479	513	6	182
Weaving Flow Rate (wv), pc/h	695	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2485	Density-Based Capacity (ciWL), pc/h/ln		2191
Total Flow Rate (v), pc/h	3180	Demand Flow-Based Capacity (ciW), pc/h		10959
Volume Ratio (VR)	0.219	Weaving Segment Capacity (cw), veh/h		5817
Minimum Lane Change Rate (LCMIN), lc/h	182	Adjusted Weaving Area Capacity, pc/h		6573
Maximum Weaving Length (LMAX), ft	4731	Volume-to-Capacity Ratio (v/c)		0.48

Speed and Density

Non-Weaving Vehicle Index (INW)	994	Average Weaving Speed (SW), mi/h	61.4
Non-Weaving Lane Change Rate (LCNW), lc/h	1018	Average Non-Weaving Speed (SNW), mi/h	63.6
Weaving Lane Change Rate (LCW), lc/h	531	Average Speed (S), mi/h	63.1
Weaving Lane Change Rate (LCAII), lc/h	1549	Density (D), pc/mi/ln	16.8
Weaving Intensity Factor (W)	0.185	Level of Service (LOS)	B

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Nason St. Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2514	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1495
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.64
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2485	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1478
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2025	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1204
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2130	692	34	385
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2533	823	40	458
Weaving Flow Rate (wv), pc/h	1281	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2573	Density-Based Capacity (ciWL), pc/h/ln		2099
Total Flow Rate (v), pc/h	3854	Demand Flow-Based Capacity (ciW), pc/h		7229
Volume Ratio (VR)	0.332	Weaving Segment Capacity (cw), veh/h		5573
Minimum Lane Change Rate (LCMIN), lc/h	1281	Adjusted Weaving Area Capacity, pc/h		6297
Maximum Weaving Length (LMAX), ft	5930	Volume-to-Capacity Ratio (v/c)		0.61

Speed and Density

Non-Weaving Vehicle Index (INW)	1029	Average Weaving Speed (SW), mi/h	57.8
Non-Weaving Lane Change Rate (LCNW), lc/h	1036	Average Non-Weaving Speed (SNW), mi/h	54.6
Weaving Lane Change Rate (LCW), lc/h	1630	Average Speed (S), mi/h	55.6
Weaving Lane Change Rate (LCAII), lc/h	2666	Density (D), pc/mi/ln	23.1
Weaving Intensity Factor (W)	0.284	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2427	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1444
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5279	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1570
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6134	1056	55	599
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7296	1256	65	712
Weaving Flow Rate (wv), pc/h	1968	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7361	Density-Based Capacity (ciWL), pc/h/ln		2317
Total Flow Rate (v), pc/h	9329	Demand Flow-Based Capacity (ciW), pc/h		16588
Volume Ratio (VR)	0.211	Weaving Segment Capacity (cw), veh/h		8202
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		9268
Maximum Weaving Length (LMAX), ft	3083	Volume-to-Capacity Ratio (v/c)		1.01

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5323	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1583
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.68
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5179	1003	28	555
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6160	1193	33	660
Weaving Flow Rate (wv), pc/h	1853	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6193	Density-Based Capacity (ciWL), pc/h/ln		2113
Total Flow Rate (v), pc/h	8046	Demand Flow-Based Capacity (ciW), pc/h		10435
Volume Ratio (VR)	0.230	Weaving Segment Capacity (cw), veh/h		7480
Minimum Lane Change Rate (LCMIN), lc/h	1853	Adjusted Weaving Area Capacity, pc/h		8452
Maximum Weaving Length (LMAX), ft	4845	Volume-to-Capacity Ratio (v/c)		0.95

Speed and Density

Non-Weaving Vehicle Index (INW)	1362	Average Weaving Speed (SW), mi/h	50.0
Non-Weaving Lane Change Rate (LCNW), lc/h	1289	Average Non-Weaving Speed (SNW), mi/h	47.0
Weaving Lane Change Rate (LCW), lc/h	2278	Average Speed (S), mi/h	47.7
Weaving Lane Change Rate (LCAII), lc/h	3567	Density (D), pc/mi/ln	42.2
Weaving Intensity Factor (W)	0.572	Level of Service (LOS)	E

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5713	209	11	469
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6795	249	13	558
Weaving Flow Rate (wv), pc/h	807	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6808	Density-Based Capacity (ciWL), pc/h/ln		2352
Total Flow Rate (v), pc/h	7615	Demand Flow-Based Capacity (ciW), pc/h		33019
Volume Ratio (VR)	0.106	Weaving Segment Capacity (cw), veh/h		10408
Minimum Lane Change Rate (LCMIN), lc/h	249	Adjusted Weaving Area Capacity, pc/h		11760
Maximum Weaving Length (LMAX), ft	2032	Volume-to-Capacity Ratio (v/c)		0.65

Speed and Density

Non-Weaving Vehicle Index (INW)	1906	Average Weaving Speed (SW), mi/h	51.0
Non-Weaving Lane Change Rate (LCNW), lc/h	3071	Average Non-Weaving Speed (SNW), mi/h	60.9
Weaving Lane Change Rate (LCW), lc/h	1028	Average Speed (S), mi/h	59.7
Weaving Lane Change Rate (LCAII), lc/h	4099	Density (D), pc/mi/ln	25.5
Weaving Intensity Factor (W)	0.527	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center- Westbound-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4779	1020	88	1143
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5684	1213	105	1360
Weaving Flow Rate (wv), pc/h	2573	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5789	Density-Based Capacity (ciWL), pc/h/ln		2174
Total Flow Rate (v), pc/h	8362	Demand Flow-Based Capacity (ciW), pc/h		11364
Volume Ratio (VR)	0.308	Weaving Segment Capacity (cw), veh/h		9620
Minimum Lane Change Rate (LCMIN), lc/h	1213	Adjusted Weaving Area Capacity, pc/h		10870
Maximum Weaving Length (LMAX), ft	4104	Volume-to-Capacity Ratio (v/c)		0.77

Speed and Density

Non-Weaving Vehicle Index (INW)	1331	Average Weaving Speed (SW), mi/h	52.6
Non-Weaving Lane Change Rate (LCNW), lc/h	954	Average Non-Weaving Speed (SNW), mi/h	53.2
Weaving Lane Change Rate (LCW), lc/h	1898	Average Speed (S), mi/h	53.0
Weaving Lane Change Rate (LCAII), lc/h	2852	Density (D), pc/mi/ln	31.6
Weaving Intensity Factor (W)	0.463	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6360	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2522
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5852	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2320
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.99
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	53.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	43.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4244	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1683
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4081	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1618
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3910	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1163
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3883	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1154
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3866	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1150
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4579	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1362
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	21.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4415	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1050
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.45
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5196	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1545
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.66
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4248	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1263
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3529	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1049
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.45
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3851	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1145
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

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Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4336	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1289
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5293	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2099
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.89
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	36.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5295	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2099
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.89
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	36.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5510	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2185
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	38.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6467	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2564
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.09
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	0.33	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3858	549	61	551
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4589	653	73	655
Weaving Flow Rate (vw), pc/h	1308	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4662	Density-Based Capacity (ciWL), pc/h/ln		2092
Total Flow Rate (v), pc/h	5970	Demand Flow-Based Capacity (ciW), pc/h		10959
Volume Ratio (VR)	0.219	Weaving Segment Capacity (cw), veh/h		7406
Minimum Lane Change Rate (LCMIN), lc/h	655	Adjusted Weaving Area Capacity, pc/h		8368
Maximum Weaving Length (LMAX), ft	4731	Volume-to-Capacity Ratio (v/c)		0.71

Speed and Density

Non-Weaving Vehicle Index (INW)	109	Average Weaving Speed (SW), mi/h	54.7
Non-Weaving Lane Change Rate (LCNW), lc/h	569	Average Non-Weaving Speed (SNW), mi/h	58.1
Weaving Lane Change Rate (LCW), lc/h	812	Average Speed (S), mi/h	57.3
Weaving Lane Change Rate (LCAII), lc/h	1381	Density (D), pc/mi/ln	26.0
Weaving Intensity Factor (W)	0.386	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91 to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5280	910	34	415
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6280	1082	40	494
Weaving Flow Rate (vw), pc/h	1576	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6320	Density-Based Capacity (ciWL), pc/h/ln		2257
Total Flow Rate (v), pc/h	7896	Demand Flow-Based Capacity (ciW), pc/h		17500
Volume Ratio (VR)	0.200	Weaving Segment Capacity (cw), veh/h		9987
Minimum Lane Change Rate (LCMIN), lc/h	1082	Adjusted Weaving Area Capacity, pc/h		11285
Maximum Weaving Length (LMAX), ft	2970	Volume-to-Capacity Ratio (v/c)		0.70

Speed and Density

Non-Weaving Vehicle Index (INW)	1390	Average Weaving Speed (SW), mi/h	51.8
Non-Weaving Lane Change Rate (LCNW), lc/h	1235	Average Non-Weaving Speed (SNW), mi/h	54.6
Weaving Lane Change Rate (LCW), lc/h	1746	Average Speed (S), mi/h	54.0
Weaving Lane Change Rate (LCAII), lc/h	2981	Density (D), pc/mi/ln	29.2
Weaving Intensity Factor (W)	0.496	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5720	853	23	469
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6803	1015	27	558
Weaving Flow Rate (vw), pc/h	1573	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6830	Density-Based Capacity (ciWL), pc/h/ln		2163
Total Flow Rate (v), pc/h	8403	Demand Flow-Based Capacity (ciW), pc/h		12834
Volume Ratio (VR)	0.187	Weaving Segment Capacity (cw), veh/h		9571
Minimum Lane Change Rate (LCMIN), lc/h	1015	Adjusted Weaving Area Capacity, pc/h		10815
Maximum Weaving Length (LMAX), ft	4404	Volume-to-Capacity Ratio (v/c)		0.78

Speed and Density

Non-Weaving Vehicle Index (INW)	1776	Average Weaving Speed (SW), mi/h	49.5
Non-Weaving Lane Change Rate (LCNW), lc/h	2660	Average Non-Weaving Speed (SNW), mi/h	54.6
Weaving Lane Change Rate (LCW), lc/h	1758	Average Speed (S), mi/h	53.6
Weaving Lane Change Rate (LCAII), lc/h	4418	Density (D), pc/mi/ln	31.4
Weaving Intensity Factor (W)	0.593	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6307	712	11	267
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7502	847	13	318
Weaving Flow Rate (wv), pc/h	1165	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7515	Density-Based Capacity (ciWL), pc/h/ln		2188
Total Flow Rate (v), pc/h	8680	Demand Flow-Based Capacity (ciW), pc/h		17910
Volume Ratio (VR)	0.134	Weaving Segment Capacity (cw), veh/h		9682
Minimum Lane Change Rate (LCMIN), lc/h	318	Adjusted Weaving Area Capacity, pc/h		10940
Maximum Weaving Length (LMAX), ft	3873	Volume-to-Capacity Ratio (v/c)		0.79

Speed and Density

Non-Weaving Vehicle Index (INW)	1653	Average Weaving Speed (SW), mi/h	50.6
Non-Weaving Lane Change Rate (LCNW), lc/h	2367	Average Non-Weaving Speed (SNW), mi/h	59.4
Weaving Lane Change Rate (LCW), lc/h	982	Average Speed (S), mi/h	58.0
Weaving Lane Change Rate (LCAII), lc/h	3349	Density (D), pc/mi/ln	29.9
Weaving Intensity Factor (W)	0.544	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7926	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2357
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.01
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	2800	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	7288	1162	23	443
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8668	1382	27	527
Weaving Flow Rate (wv), pc/h	1909	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8695	Density-Based Capacity (ciWL), pc/h/ln		2283
Total Flow Rate (v), pc/h	10604	Demand Flow-Based Capacity (ciW), pc/h		13333
Volume Ratio (VR)	0.180	Weaving Segment Capacity (cw), veh/h		10102
Minimum Lane Change Rate (LCMIN), lc/h	527	Adjusted Weaving Area Capacity, pc/h		11415
Maximum Weaving Length (LMAX), ft	4333	Volume-to-Capacity Ratio (v/c)		0.93

Speed and Density

Non-Weaving Vehicle Index (INW)	4869	Average Weaving Speed (SW), mi/h	55.0
Non-Weaving Lane Change Rate (LCNW), lc/h	3628	Average Non-Weaving Speed (SNW), mi/h	56.0
Weaving Lane Change Rate (LCW), lc/h	1701	Average Speed (S), mi/h	55.8
Weaving Lane Change Rate (LCAII), lc/h	5329	Density (D), pc/mi/ln	38.0
Weaving Intensity Factor (W)	0.376	Level of Service (LOS)	E

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8450	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2513
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4050	1013	28	583
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4817	1205	33	693
Weaving Flow Rate (vw), pc/h	1898	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4850	Density-Based Capacity (ciWL), pc/h/ln		2200
Total Flow Rate (v), pc/h	6748	Demand Flow-Based Capacity (ciW), pc/h		12456
Volume Ratio (VR)	0.281	Weaving Segment Capacity (cw), veh/h		9735
Minimum Lane Change Rate (LCMIN), lc/h	1205	Adjusted Weaving Area Capacity, pc/h		11000
Maximum Weaving Length (LMAX), ft	3815	Volume-to-Capacity Ratio (v/c)		0.61

Speed and Density

Non-Weaving Vehicle Index (INW)	1164	Average Weaving Speed (SW), mi/h	53.9
Non-Weaving Lane Change Rate (LCNW), lc/h	686	Average Non-Weaving Speed (SNW), mi/h	54.8
Weaving Lane Change Rate (LCW), lc/h	1909	Average Speed (S), mi/h	54.5
Weaving Lane Change Rate (LCAII), lc/h	2595	Density (D), pc/mi/ln	24.8
Weaving Intensity Factor (W)	0.415	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3975	691	36	1087
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4728	822	43	1293
Weaving Flow Rate (vw), pc/h	2115	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4771	Density-Based Capacity (cIWL), pc/h/ln		2179
Total Flow Rate (v), pc/h	6886	Demand Flow-Based Capacity (cIW), pc/h		11401
Volume Ratio (VR)	0.307	Weaving Segment Capacity (cw), veh/h		7714
Minimum Lane Change Rate (LCMIN), Ic/h	822	Adjusted Weaving Area Capacity, pc/h		8716
Maximum Weaving Length (LMAX), ft	4093	Volume-to-Capacity Ratio (v/c)		0.79

Speed and Density

Non-Weaving Vehicle Index (INW)	1145	Average Weaving Speed (SW), mi/h	55.6
Non-Weaving Lane Change Rate (LCNW), Ic/h	863	Average Non-Weaving Speed (SNW), mi/h	55.8
Weaving Lane Change Rate (LCW), Ic/h	1273	Average Speed (S), mi/h	55.7
Weaving Lane Change Rate (LCAII), Ic/h	2136	Density (D), pc/mi/ln	30.9
Weaving Intensity Factor (W)	0.356	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4667	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2776
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.19
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3353	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1994
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2921	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1737
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2245	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	890
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.38
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	13.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1645	600
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1957	714
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.27	0.36

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.492
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	400
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	56.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.678	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1557	Ramp Junction Speed (S), mi/h	59.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	11.0

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	15.8
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1645	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	978
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.42
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	15.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1645	173
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1957	206
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.45	0.10

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.306
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1957	Ramp Junction Speed (S), mi/h	61.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	2163	Average Density (D), pc/mi/ln	17.6

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.9
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1818	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1081
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1269	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	754
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.32
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	11.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1269	117
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1509	139
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.34	0.07

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.285
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	62.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1509	Ramp Junction Speed (S), mi/h	62.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	1648	Average Density (D), pc/mi/ln	13.3

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.3
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1386	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	824
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.35
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	12.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1607	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	956
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1559	48
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1854	57
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.39	0.03

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.433
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1854	Ramp Junction Speed (S), mi/h	57.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	16.0

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	18.6
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1559	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	927
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1559	516
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1854	614
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.51	0.31

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.308
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1854	Ramp Junction Speed (S), mi/h	61.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	2468	Average Density (D), pc/mi/ln	20.1

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	19.2
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2075	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1234
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1979	96
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2354	114
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.49	0.06

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.438
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	2354	Ramp Junction Speed (S), mi/h	57.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	20.4

Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.9
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1979	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1177
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2236	504	6	196
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2660	599	7	233
Weaving Flow Rate (wv), pc/h	832	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2667	Density-Based Capacity (ciWL), pc/h/ln		2176
Total Flow Rate (v), pc/h	3499	Demand Flow-Based Capacity (ciW), pc/h		10084
Volume Ratio (VR)	0.238	Weaving Segment Capacity (cw), veh/h		5777
Minimum Lane Change Rate (LCMIN), lc/h	233	Adjusted Weaving Area Capacity, pc/h		6528
Maximum Weaving Length (LMAX), ft	4928	Volume-to-Capacity Ratio (v/c)		0.54

Speed and Density

Non-Weaving Vehicle Index (INW)	1067	Average Weaving Speed (SW), mi/h	61.1
Non-Weaving Lane Change Rate (LCNW), lc/h	1056	Average Non-Weaving Speed (SNW), mi/h	62.7
Weaving Lane Change Rate (LCW), lc/h	582	Average Speed (S), mi/h	62.3
Weaving Lane Change Rate (LCAII), lc/h	1638	Density (D), pc/mi/ln	18.7
Weaving Intensity Factor (W)	0.193	Level of Service (LOS)	B

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Nason St. Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2738	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1628
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2966	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1764
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2776	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1651
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2706	352	19	677
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3219	419	23	805
Weaving Flow Rate (wv), pc/h	1224	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3242	Density-Based Capacity (ciWL), pc/h/ln		2147
Total Flow Rate (v), pc/h	4466	Demand Flow-Based Capacity (ciW), pc/h		8759
Volume Ratio (VR)	0.274	Weaving Segment Capacity (cw), veh/h		5700
Minimum Lane Change Rate (LCMIN), Ic/h	1224	Adjusted Weaving Area Capacity, pc/h		6441
Maximum Weaving Length (LMAX), ft	5307	Volume-to-Capacity Ratio (v/c)		0.69

Speed and Density

Non-Weaving Vehicle Index (INW)	1297	Average Weaving Speed (SW), mi/h	57.6
Non-Weaving Lane Change Rate (LCNW), Ic/h	1174	Average Non-Weaving Speed (SNW), mi/h	54.0
Weaving Lane Change Rate (LCW), Ic/h	1573	Average Speed (S), mi/h	54.9
Weaving Lane Change Rate (LCAII), Ic/h	2747	Density (D), pc/mi/ln	27.1
Weaving Intensity Factor (W)	0.290	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3089	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1837
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6772	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2014
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.86
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	34.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6800	670	35	520
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8088	797	42	618
Weaving Flow Rate (wv), pc/h	1415	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8130	Density-Based Capacity (ciWL), pc/h/ln		2366
Total Flow Rate (v), pc/h	9545	Demand Flow-Based Capacity (ciW), pc/h		23649
Volume Ratio (VR)	0.148	Weaving Segment Capacity (cw), veh/h		8376
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		9464
Maximum Weaving Length (LMAX), ft	2445	Volume-to-Capacity Ratio (v/c)		1.01

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5064	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1506
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.64
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4856	585	12	518
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5776	696	14	616
Weaving Flow Rate (wv), pc/h	1312	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5790	Density-Based Capacity (ciWL), pc/h/ln		2149
Total Flow Rate (v), pc/h	7102	Demand Flow-Based Capacity (ciW), pc/h		12973
Volume Ratio (VR)	0.185	Weaving Segment Capacity (cw), veh/h		7607
Minimum Lane Change Rate (LCMIN), Ic/h	1312	Adjusted Weaving Area Capacity, pc/h		8595
Maximum Weaving Length (LMAX), ft	4383	Volume-to-Capacity Ratio (v/c)		0.83

Speed and Density

Non-Weaving Vehicle Index (INW)	1274	Average Weaving Speed (SW), mi/h	52.5
Non-Weaving Lane Change Rate (LCNW), Ic/h	1019	Average Non-Weaving Speed (SNW), mi/h	52.0
Weaving Lane Change Rate (LCW), Ic/h	1737	Average Speed (S), mi/h	52.1
Weaving Lane Change Rate (LCAII), Ic/h	2756	Density (D), pc/mi/ln	34.1
Weaving Intensity Factor (W)	0.466	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5032	434	22	410
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5985	516	26	488
Weaving Flow Rate (vw), pc/h	1004	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6011	Density-Based Capacity (ciWL), pc/h/ln		2324
Total Flow Rate (v), pc/h	7015	Demand Flow-Based Capacity (ciW), pc/h		24476
Volume Ratio (VR)	0.143	Weaving Segment Capacity (cw), veh/h		10284
Minimum Lane Change Rate (LCMIN), lc/h	516	Adjusted Weaving Area Capacity, pc/h		11620
Maximum Weaving Length (LMAX), ft	2396	Volume-to-Capacity Ratio (v/c)		0.60

Speed and Density

Non-Weaving Vehicle Index (INW)	1683	Average Weaving Speed (SW), mi/h	52.5
Non-Weaving Lane Change Rate (LCNW), lc/h	2210	Average Non-Weaving Speed (SNW), mi/h	59.6
Weaving Lane Change Rate (LCW), lc/h	1295	Average Speed (S), mi/h	58.5
Weaving Lane Change Rate (LCAII), lc/h	3505	Density (D), pc/mi/ln	24.0
Weaving Intensity Factor (W)	0.466	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4540	886	92	926
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5400	1054	109	1101
Weaving Flow Rate (vw), pc/h	2155	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5509	Density-Based Capacity (ciWL), pc/h/ln		2196
Total Flow Rate (v), pc/h	7664	Demand Flow-Based Capacity (ciW), pc/h		12456
Volume Ratio (VR)	0.281	Weaving Segment Capacity (cw), veh/h		9717
Minimum Lane Change Rate (LCMIN), lc/h	1054	Adjusted Weaving Area Capacity, pc/h		10980
Maximum Weaving Length (LMAX), ft	3815	Volume-to-Capacity Ratio (v/c)		0.70

Speed and Density

Non-Weaving Vehicle Index (INW)	1267	Average Weaving Speed (SW), mi/h	53.7
Non-Weaving Lane Change Rate (LCNW), lc/h	795	Average Non-Weaving Speed (SNW), mi/h	55.1
Weaving Lane Change Rate (LCW), lc/h	1739	Average Speed (S), mi/h	54.7
Weaving Lane Change Rate (LCAII), lc/h	2534	Density (D), pc/mi/ln	28.0
Weaving Intensity Factor (W)	0.422	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3492	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1384
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	21.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4375	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1735
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4679	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1855
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4498	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1783
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4292	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1276
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4260	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1267
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4240	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1261
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5091	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1514
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.64
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	Existing With Project Alt 2. Warehouse Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3980	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	947
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6845	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2036
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.87
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	34.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6406	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1905
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.81
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5957	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1771
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6382	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1898
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.81
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7187	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2137
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.91
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	57.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	37.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8375	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	3320
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.41
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8879	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	3520
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.50
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8862	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	3514
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.50
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9019	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	3576
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.52
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	1.70	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	7242	887	80	631
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8614	1055	95	751
Weaving Flow Rate (vw), pc/h	1806	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8709	Density-Based Capacity (ciWL), pc/h/ln		2128
Total Flow Rate (v), pc/h	10515	Demand Flow-Based Capacity (ciW), pc/h		13953
Volume Ratio (VR)	0.172	Weaving Segment Capacity (cw), veh/h		7533
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		8512
Maximum Weaving Length (LMAX), ft	4252	Volume-to-Capacity Ratio (v/c)		1.24

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	7540	1967	49	681
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8968	2340	58	810
Weaving Flow Rate (vw), pc/h	3150	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	9026	Density-Based Capacity (ciWL), pc/h/ln		2210
Total Flow Rate (v), pc/h	12176	Demand Flow-Based Capacity (ciW), pc/h		13514
Volume Ratio (VR)	0.259	Weaving Segment Capacity (cw), veh/h		9779
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		11050
Maximum Weaving Length (LMAX), ft	3582	Volume-to-Capacity Ratio (v/c)		1.10

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	8820	562	23	688
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10491	668	27	818
Weaving Flow Rate (wv), pc/h	1486	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10518	Density-Based Capacity (ciWL), pc/h/ln		2211
Total Flow Rate (v), pc/h	12004	Demand Flow-Based Capacity (ciW), pc/h		19355
Volume Ratio (VR)	0.124	Weaving Segment Capacity (cw), veh/h		9784
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		11055
Maximum Weaving Length (LMAX), ft	3774	Volume-to-Capacity Ratio (v/c)		1.09

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	8476	595	17	906
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10081	708	20	1078
Weaving Flow Rate (vw), pc/h	1786	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10101	Density-Based Capacity (ciWL), pc/h/ln		2176
Total Flow Rate (v), pc/h	11887	Demand Flow-Based Capacity (ciW), pc/h		16000
Volume Ratio (VR)	0.150	Weaving Segment Capacity (cw), veh/h		9629
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		10880
Maximum Weaving Length (LMAX), ft	4031	Volume-to-Capacity Ratio (v/c)		1.09

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAI), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	10400	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	3092
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.32
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	2800	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	9088	908	23	927
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10809	1080	27	1103
Weaving Flow Rate (wv), pc/h	2183	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10836	Density-Based Capacity (ciWL), pc/h/ln		2292
Total Flow Rate (v), pc/h	13019	Demand Flow-Based Capacity (ciW), pc/h		14286
Volume Ratio (VR)	0.168	Weaving Segment Capacity (cw), veh/h		10142
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		11460
Maximum Weaving Length (LMAX), ft	4212	Volume-to-Capacity Ratio (v/c)		1.14

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7892	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2347
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.00
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2250	1979	31	1148
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2676	2354	37	1365
Weaving Flow Rate (vw), pc/h	3719	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2713	Density-Based Capacity (cIWL), pc/h/ln		1942
Total Flow Rate (v), pc/h	6432	Demand Flow-Based Capacity (cIW), pc/h		6055
Volume Ratio (VR)	0.578	Weaving Segment Capacity (cw), veh/h		5359
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		6055
Maximum Weaving Length (LMAX), ft	7186	Volume-to-Capacity Ratio (v/c)		1.06

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2540	660	21	1689
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3021	785	25	2009
Weaving Flow Rate (wv), pc/h	2794	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3046	Density-Based Capacity (ciWL), pc/h/ln		2032
Total Flow Rate (v), pc/h	5840	Demand Flow-Based Capacity (ciW), pc/h		7322
Volume Ratio (VR)	0.478	Weaving Segment Capacity (cw), veh/h		6480
Minimum Lane Change Rate (LCMIN), lc/h	785	Adjusted Weaving Area Capacity, pc/h		7322
Maximum Weaving Length (LMAX), ft	6004	Volume-to-Capacity Ratio (v/c)		0.80

Speed and Density

Non-Weaving Vehicle Index (INW)	731	Average Weaving Speed (SW), mi/h	57.2
Non-Weaving Lane Change Rate (LCNW), lc/h	507	Average Non-Weaving Speed (SNW), mi/h	57.3
Weaving Lane Change Rate (LCW), lc/h	1236	Average Speed (S), mi/h	57.3
Weaving Lane Change Rate (LCAII), lc/h	1743	Density (D), pc/mi/ln	25.5
Weaving Intensity Factor (W)	0.303	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3397	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2020
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.86
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	34.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3230	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1921
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3042	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1809
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2384	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	945
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	14.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1721	664
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2047	790
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.28	0.40

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.499
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	412
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	56.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.672	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1635	Ramp Junction Speed (S), mi/h	59.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	11.5

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	16.5
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1721	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1024
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.44
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1721	353
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2047	420
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.51	0.21

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.318
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.1
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	2047	Ramp Junction Speed (S), mi/h	61.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	2467	Average Density (D), pc/mi/ln	20.2

Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	20.2
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2074	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1234
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1666	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	991
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.42
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	15.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1666	180
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1982	214
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.46	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.300
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1982	Ramp Junction Speed (S), mi/h	61.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	2196	Average Density (D), pc/mi/ln	17.8

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.6
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1846	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1098
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3087	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1836
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2763	324
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3286	385
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.68	0.19

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.463
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3286	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	28.8

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	30.9
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2763	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1643
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2763	719
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3286	855
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.86	0.43

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.507
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	3286	Ramp Junction Speed (S), mi/h	55.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	4141	Average Density (D), pc/mi/ln	37.1

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	32.1
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3482	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2071
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3308	174
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3935	207
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.10

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.447
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3935	Ramp Junction Speed (S), mi/h	57.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	34.2

Level of Service (LOS)	E	Density in Ramp Influence Area (DR), pc/mi/ln	36.5
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3308	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1968
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3474	557	6	391
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4132	663	7	465
Weaving Flow Rate (wv), pc/h	1128	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4139	Density-Based Capacity (ciWL), pc/h/ln		2195
Total Flow Rate (v), pc/h	5267	Demand Flow-Based Capacity (ciW), pc/h		11215
Volume Ratio (VR)	0.214	Weaving Segment Capacity (cw), veh/h		5828
Minimum Lane Change Rate (LCMIN), lc/h	465	Adjusted Weaving Area Capacity, pc/h		6585
Maximum Weaving Length (LMAX), ft	4680	Volume-to-Capacity Ratio (v/c)		0.80

Speed and Density

Non-Weaving Vehicle Index (INW)	1656	Average Weaving Speed (SW), mi/h	57.3
Non-Weaving Lane Change Rate (LCNW), lc/h	2045	Average Non-Weaving Speed (SNW), mi/h	58.2
Weaving Lane Change Rate (LCW), lc/h	814	Average Speed (S), mi/h	58.0
Weaving Lane Change Rate (LCAII), lc/h	2859	Density (D), pc/mi/ln	30.3
Weaving Intensity Factor (W)	0.300	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Nason St. Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4047	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2407
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3212	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1910
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2311	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1374
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	21.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	1960	420	7	653
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2331	500	8	777
Weaving Flow Rate (wv), pc/h	1277	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2339	Density-Based Capacity (ciWL), pc/h/ln		2082
Total Flow Rate (v), pc/h	3616	Demand Flow-Based Capacity (ciW), pc/h		6799
Volume Ratio (VR)	0.353	Weaving Segment Capacity (cw), veh/h		5528
Minimum Lane Change Rate (LCMIN), lc/h	1277	Adjusted Weaving Area Capacity, pc/h		6246
Maximum Weaving Length (LMAX), ft	6159	Volume-to-Capacity Ratio (v/c)		0.58

Speed and Density

Non-Weaving Vehicle Index (INW)	936	Average Weaving Speed (SW), mi/h	58.0
Non-Weaving Lane Change Rate (LCNW), lc/h	988	Average Non-Weaving Speed (SNW), mi/h	55.0
Weaving Lane Change Rate (LCW), lc/h	1626	Average Speed (S), mi/h	56.0
Weaving Lane Change Rate (LCAII), lc/h	2614	Density (D), pc/mi/ln	21.5
Weaving Intensity Factor (W)	0.279	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2401	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1428
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5515	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1640
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6174	1243	57	637
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7343	1478	68	758
Weaving Flow Rate (wv), pc/h	2236	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7411	Density-Based Capacity (ciWL), pc/h/ln		2301
Total Flow Rate (v), pc/h	9647	Demand Flow-Based Capacity (ciW), pc/h		15086
Volume Ratio (VR)	0.232	Weaving Segment Capacity (cw), veh/h		8146
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		9205
Maximum Weaving Length (LMAX), ft	3300	Volume-to-Capacity Ratio (v/c)		1.05

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5919	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1760
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5536	1100	29	507
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6585	1308	34	603
Weaving Flow Rate (wv), pc/h	1911	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6619	Density-Based Capacity (ciWL), pc/h/ln		2118
Total Flow Rate (v), pc/h	8530	Demand Flow-Based Capacity (ciW), pc/h		10714
Volume Ratio (VR)	0.224	Weaving Segment Capacity (cw), veh/h		7498
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		8472
Maximum Weaving Length (LMAX), ft	4783	Volume-to-Capacity Ratio (v/c)		1.01

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6125	210	12	511
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7285	250	14	608
Weaving Flow Rate (wv), pc/h	858	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7299	Density-Based Capacity (ciWL), pc/h/ln		2352
Total Flow Rate (v), pc/h	8157	Demand Flow-Based Capacity (ciW), pc/h		33333
Volume Ratio (VR)	0.105	Weaving Segment Capacity (cw), veh/h		10408
Minimum Lane Change Rate (LCMIN), Ic/h	250	Adjusted Weaving Area Capacity, pc/h		11760
Maximum Weaving Length (LMAX), ft	2022	Volume-to-Capacity Ratio (v/c)		0.69

Speed and Density

Non-Weaving Vehicle Index (INW)	2044	Average Weaving Speed (SW), mi/h	50.4
Non-Weaving Lane Change Rate (LCNW), Ic/h	3317	Average Non-Weaving Speed (SNW), mi/h	60.4
Weaving Lane Change Rate (LCW), Ic/h	1029	Average Speed (S), mi/h	59.2
Weaving Lane Change Rate (LCAII), Ic/h	4346	Density (D), pc/mi/ln	27.6
Weaving Intensity Factor (W)	0.552	Level of Service (LOS)	C

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3998	1208	92	2338
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4755	1437	109	2781
Weaving Flow Rate (wv), pc/h	4218	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4864	Density-Based Capacity (ciWL), pc/h/ln		2041
Total Flow Rate (v), pc/h	9082	Demand Flow-Based Capacity (ciW), pc/h		7543
Volume Ratio (VR)	0.464	Weaving Segment Capacity (cw), veh/h		6676
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		7544
Maximum Weaving Length (LMAX), ft	5843	Volume-to-Capacity Ratio (v/c)		1.20

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6924	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2745
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.17
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6404	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2539
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.08
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4600	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1824
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4262	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1690
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4083	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1214
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4055	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1206
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4037	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1200
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4786	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1423
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	21.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, In	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4614	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1098
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5425	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1613
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4466	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1328
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4016	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1194
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4405	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1310
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4972	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1478
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5526	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2191
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.1
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6273	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2487
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.06
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6201	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2459
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.05
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7322	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2903
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.24
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	0.33	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4180	538	74	632
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4972	640	88	752
Weaving Flow Rate (vw), pc/h	1392	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5060	Density-Based Capacity (ciWL), pc/h/ln		2094
Total Flow Rate (v), pc/h	6452	Demand Flow-Based Capacity (ciW), pc/h		11111
Volume Ratio (VR)	0.216	Weaving Segment Capacity (cw), veh/h		7413
Minimum Lane Change Rate (LCMIN), lc/h	752	Adjusted Weaving Area Capacity, pc/h		8376
Maximum Weaving Length (LMAX), ft	4700	Volume-to-Capacity Ratio (v/c)		0.77

Speed and Density

Non-Weaving Vehicle Index (INW)	118	Average Weaving Speed (SW), mi/h	53.6
Non-Weaving Lane Change Rate (LCNW), lc/h	651	Average Non-Weaving Speed (SNW), mi/h	56.8
Weaving Lane Change Rate (LCW), lc/h	909	Average Speed (S), mi/h	56.1
Weaving Lane Change Rate (LCAII), lc/h	1560	Density (D), pc/mi/ln	28.8
Weaving Intensity Factor (W)	0.425	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91 to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5702	1197	27	417
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6782	1424	32	496
Weaving Flow Rate (vw), pc/h	1920	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6814	Density-Based Capacity (cIWL), pc/h/ln		2241
Total Flow Rate (v), pc/h	8734	Demand Flow-Based Capacity (cIW), pc/h		15909
Volume Ratio (VR)	0.220	Weaving Segment Capacity (cw), veh/h		9916
Minimum Lane Change Rate (LCMIN), lc/h	1424	Adjusted Weaving Area Capacity, pc/h		11205
Maximum Weaving Length (LMAX), ft	3176	Volume-to-Capacity Ratio (v/c)		0.78

Speed and Density

Non-Weaving Vehicle Index (INW)	1499	Average Weaving Speed (SW), mi/h	49.4
Non-Weaving Lane Change Rate (LCNW), lc/h	1702	Average Non-Weaving Speed (SNW), mi/h	51.4
Weaving Lane Change Rate (LCW), lc/h	2088	Average Speed (S), mi/h	50.9
Weaving Lane Change Rate (LCAII), lc/h	3790	Density (D), pc/mi/ln	34.3
Weaving Intensity Factor (W)	0.600	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6470	923	21	429
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7696	1098	25	510
Weaving Flow Rate (vw), pc/h	1608	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7721	Density-Based Capacity (ciWL), pc/h/ln		2174
Total Flow Rate (v), pc/h	9329	Demand Flow-Based Capacity (ciW), pc/h		13953
Volume Ratio (VR)	0.172	Weaving Segment Capacity (cw), veh/h		9620
Minimum Lane Change Rate (LCMIN), lc/h	1098	Adjusted Weaving Area Capacity, pc/h		10870
Maximum Weaving Length (LMAX), ft	4252	Volume-to-Capacity Ratio (v/c)		0.86

Speed and Density

Non-Weaving Vehicle Index (INW)	2007	Average Weaving Speed (SW), mi/h	47.7
Non-Weaving Lane Change Rate (LCNW), lc/h	3411	Average Non-Weaving Speed (SNW), mi/h	53.1
Weaving Lane Change Rate (LCW), lc/h	1841	Average Speed (S), mi/h	52.1
Weaving Lane Change Rate (LCAII), lc/h	5252	Density (D), pc/mi/ln	35.8
Weaving Intensity Factor (W)	0.680	Level of Service (LOS)	E

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6753	708	16	640
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8032	842	19	761
Weaving Flow Rate (wv), pc/h	1603	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8051	Density-Based Capacity (ciWL), pc/h/ln		2163
Total Flow Rate (v), pc/h	9654	Demand Flow-Based Capacity (ciW), pc/h		14458
Volume Ratio (VR)	0.166	Weaving Segment Capacity (cw), veh/h		9571
Minimum Lane Change Rate (LCMIN), lc/h	761	Adjusted Weaving Area Capacity, pc/h		10815
Maximum Weaving Length (LMAX), ft	4192	Volume-to-Capacity Ratio (v/c)		0.89

Speed and Density

Non-Weaving Vehicle Index (INW)	1771	Average Weaving Speed (SW), mi/h	48.1
Non-Weaving Lane Change Rate (LCNW), lc/h	2881	Average Non-Weaving Speed (SNW), mi/h	55.3
Weaving Lane Change Rate (LCW), lc/h	1425	Average Speed (S), mi/h	54.0
Weaving Lane Change Rate (LCAII), lc/h	4306	Density (D), pc/mi/ln	35.8
Weaving Intensity Factor (W)	0.663	Level of Service (LOS)	E

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8427	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2506
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	2800	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	7533	1212	24	794
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8960	1442	29	944
Weaving Flow Rate (wv), pc/h	2386	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8989	Density-Based Capacity (ciWL), pc/h/ln		2259
Total Flow Rate (v), pc/h	11375	Demand Flow-Based Capacity (ciW), pc/h		11429
Volume Ratio (VR)	0.210	Weaving Segment Capacity (cw), veh/h		9996
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		11295
Maximum Weaving Length (LMAX), ft	4639	Volume-to-Capacity Ratio (v/c)		1.01

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8942	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2659
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.14
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4776	1289	15	317
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5681	1533	18	377
Weaving Flow Rate (vw), pc/h	1910	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5699	Density-Based Capacity (ciWL), pc/h/ln		2224
Total Flow Rate (v), pc/h	7609	Demand Flow-Based Capacity (ciW), pc/h		13944
Volume Ratio (VR)	0.251	Weaving Segment Capacity (cw), veh/h		9841
Minimum Lane Change Rate (LCMIN), lc/h	1533	Adjusted Weaving Area Capacity, pc/h		11120
Maximum Weaving Length (LMAX), ft	3498	Volume-to-Capacity Ratio (v/c)		0.68

Speed and Density

Non-Weaving Vehicle Index (INW)	1368	Average Weaving Speed (SW), mi/h	51.6
Non-Weaving Lane Change Rate (LCNW), lc/h	1081	Average Non-Weaving Speed (SNW), mi/h	51.7
Weaving Lane Change Rate (LCW), lc/h	2237	Average Speed (S), mi/h	51.7
Weaving Lane Change Rate (LCAII), lc/h	3318	Density (D), pc/mi/ln	29.4
Weaving Intensity Factor (W)	0.504	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4138	1164	22	1926
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4922	1384	26	2291
Weaving Flow Rate (vw), pc/h	3675	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4948	Density-Based Capacity (cIWL), pc/h/ln		2078
Total Flow Rate (v), pc/h	8623	Demand Flow-Based Capacity (cIW), pc/h		8216
Volume Ratio (VR)	0.426	Weaving Segment Capacity (cw), veh/h		7271
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		8216
Maximum Weaving Length (LMAX), ft	5408	Volume-to-Capacity Ratio (v/c)		1.05

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4685	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2786
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.19
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4033	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2398
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.02
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3806	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2264
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.97
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	54.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	41.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4511	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1788
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3571	940
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	4247	1118
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.56

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.529
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1245
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	55.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.602	Outer Lanes Freeway Speed (SO), mi/h	75.8
Flow in Lanes 1 and 2 (v12), pc/h	3002	Ramp Junction Speed (S), mi/h	60.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.6

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	28.3
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3571	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2124
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.91
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	57.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	37.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3571	484
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	4247	576
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	1.00	0.29

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.757
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	48.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	4247	Ramp Junction Speed (S), mi/h	48.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	4823	Average Density (D), pc/mi/ln	49.4

Level of Service (LOS)	E	Density in Ramp Influence Area (DR), pc/mi/ln	38.5
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4055	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2412
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3132	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1862
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3132	160
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3725	190
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.10

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.461
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.1
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	3725	Ramp Junction Speed (S), mi/h	57.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	3915	Average Density (D), pc/mi/ln	34.3

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	31.0
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3292	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1958
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2969	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1766
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2658	310
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3161	369
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.18

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.461
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.1
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3161	Ramp Junction Speed (S), mi/h	57.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	27.7

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.9
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2658	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1580
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2658	585
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3161	696
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.80	0.35

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.446
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	3161	Ramp Junction Speed (S), mi/h	57.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3857	Average Density (D), pc/mi/ln	33.5

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	30.0
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3243	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1928
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	60.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2997	246
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3565	293
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.74	0.15

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.454
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3565	Ramp Junction Speed (S), mi/h	57.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	31.1

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	33.3
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2997	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1782
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3561	734	7	171
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4236	873	8	203
Weaving Flow Rate (wv), pc/h	1076	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4244	Density-Based Capacity (ciWL), pc/h/ln		2204
Total Flow Rate (v), pc/h	5320	Demand Flow-Based Capacity (ciW), pc/h		11881
Volume Ratio (VR)	0.202	Weaving Segment Capacity (cw), veh/h		5852
Minimum Lane Change Rate (LCMIN), lc/h	203	Adjusted Weaving Area Capacity, pc/h		6612
Maximum Weaving Length (LMAX), ft	4557	Volume-to-Capacity Ratio (v/c)		0.80

Speed and Density

Non-Weaving Vehicle Index (INW)	1698	Average Weaving Speed (SW), mi/h	57.8
Non-Weaving Lane Change Rate (LCNW), lc/h	2149	Average Non-Weaving Speed (SNW), mi/h	60.0
Weaving Lane Change Rate (LCW), lc/h	552	Average Speed (S), mi/h	59.5
Weaving Lane Change Rate (LCAII), lc/h	2701	Density (D), pc/mi/ln	29.8
Weaving Intensity Factor (W)	0.286	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Nason St. Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3119	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1855
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3446	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2050
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3032	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1803
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3184	462	7	153
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3787	550	8	182
Weaving Flow Rate (wv), pc/h	732	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3795	Density-Based Capacity (ciWL), pc/h/ln		2235
Total Flow Rate (v), pc/h	4527	Demand Flow-Based Capacity (ciW), pc/h		14815
Volume Ratio (VR)	0.162	Weaving Segment Capacity (cw), veh/h		5934
Minimum Lane Change Rate (LCMIN), Ic/h	732	Adjusted Weaving Area Capacity, pc/h		6705
Maximum Weaving Length (LMAX), ft	4151	Volume-to-Capacity Ratio (v/c)		0.68

Speed and Density

Non-Weaving Vehicle Index (INW)	1518	Average Weaving Speed (SW), mi/h	57.5
Non-Weaving Lane Change Rate (LCNW), Ic/h	1706	Average Non-Weaving Speed (SNW), mi/h	57.5
Weaving Lane Change Rate (LCW), Ic/h	1081	Average Speed (S), mi/h	57.5
Weaving Lane Change Rate (LCAII), Ic/h	2787	Density (D), pc/mi/ln	26.2
Weaving Intensity Factor (W)	0.294	Level of Service (LOS)	C

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. I-215	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3560	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2117
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.90
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	57.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	36.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8017	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2384
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.02
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	8490	1208	50	528
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10098	1437	59	628
Weaving Flow Rate (wv), pc/h	2065	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10157	Density-Based Capacity (ciWL), pc/h/ln		2350
Total Flow Rate (v), pc/h	12222	Demand Flow-Based Capacity (ciW), pc/h		20710
Volume Ratio (VR)	0.169	Weaving Segment Capacity (cw), veh/h		8319
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		9400
Maximum Weaving Length (LMAX), ft	2656	Volume-to-Capacity Ratio (v/c)		1.30

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6565	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1952
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6189	656	13	587
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7361	780	15	698
Weaving Flow Rate (wv), pc/h	1478	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7376	Density-Based Capacity (ciWL), pc/h/ln		2163
Total Flow Rate (v), pc/h	8854	Demand Flow-Based Capacity (ciW), pc/h		14371
Volume Ratio (VR)	0.167	Weaving Segment Capacity (cw), veh/h		7657
Minimum Lane Change Rate (LCMIN), Ic/h	0	Adjusted Weaving Area Capacity, pc/h		8652
Maximum Weaving Length (LMAX), ft	4202	Volume-to-Capacity Ratio (v/c)		1.02

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), Ic/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), Ic/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), Ic/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6405	468	13	439
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7618	557	15	522
Weaving Flow Rate (vw), pc/h	1079	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7633	Density-Based Capacity (ciWL), pc/h/ln		2338
Total Flow Rate (v), pc/h	8712	Demand Flow-Based Capacity (ciW), pc/h		28226
Volume Ratio (VR)	0.124	Weaving Segment Capacity (cw), veh/h		10346
Minimum Lane Change Rate (LCMIN), lc/h	557	Adjusted Weaving Area Capacity, pc/h		11690
Maximum Weaving Length (LMAX), ft	2208	Volume-to-Capacity Ratio (v/c)		0.75

Speed and Density

Non-Weaving Vehicle Index (INW)	2137	Average Weaving Speed (SW), mi/h	49.6
Non-Weaving Lane Change Rate (LCNW), lc/h	3391	Average Non-Weaving Speed (SNW), mi/h	57.6
Weaving Lane Change Rate (LCW), lc/h	1336	Average Speed (S), mi/h	56.5
Weaving Lane Change Rate (LCAII), lc/h	4727	Density (D), pc/mi/ln	30.8
Weaving Intensity Factor (W)	0.590	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5497	1164	101	1377
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6538	1384	120	1638
Weaving Flow Rate (vw), pc/h	3022	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6658	Density-Based Capacity (ciWL), pc/h/ln		2171
Total Flow Rate (v), pc/h	9680	Demand Flow-Based Capacity (ciW), pc/h		11218
Volume Ratio (VR)	0.312	Weaving Segment Capacity (cw), veh/h		9607
Minimum Lane Change Rate (LCMIN), lc/h	1384	Adjusted Weaving Area Capacity, pc/h		10855
Maximum Weaving Length (LMAX), ft	4147	Volume-to-Capacity Ratio (v/c)		0.89

Speed and Density

Non-Weaving Vehicle Index (INW)	1531	Average Weaving Speed (SW), mi/h	49.6
Non-Weaving Lane Change Rate (LCNW), lc/h	1793	Average Non-Weaving Speed (SNW), mi/h	50.7
Weaving Lane Change Rate (LCW), lc/h	2069	Average Speed (S), mi/h	50.4
Weaving Lane Change Rate (LCAII), lc/h	3862	Density (D), pc/mi/ln	38.4
Weaving Intensity Factor (W)	0.588	Level of Service (LOS)	E

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6133	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2432
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6787	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2691
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.15
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7400	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2934
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.25
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6491	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2573
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.10
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5808	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1727
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6222	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1850
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6181	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1838
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6574	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1955
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	General Plan Build-Out Without Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, In	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5257	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1251
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6917	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2057
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	34.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6478	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1926
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6029	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1793
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6454	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1919
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7259	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2158
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.92
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	37.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8447	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	3349
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.43
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8953	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	3550
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8936	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	3543
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9093	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	3605
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.53
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	1.70	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	7316	890	80	631
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8702	1059	95	751
Weaving Flow Rate (wv), pc/h	1810	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8797	Density-Based Capacity (ciWL), pc/h/ln		2129
Total Flow Rate (v), pc/h	10607	Demand Flow-Based Capacity (ciW), pc/h		14035
Volume Ratio (VR)	0.171	Weaving Segment Capacity (cw), veh/h		7537
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		8516
Maximum Weaving Length (LMAX), ft	4242	Volume-to-Capacity Ratio (v/c)		1.25

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	7616	1976	49	681
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	9059	2350	58	810
Weaving Flow Rate (wv), pc/h	3160	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	9117	Density-Based Capacity (ciWL), pc/h/ln		2212
Total Flow Rate (v), pc/h	12277	Demand Flow-Based Capacity (ciW), pc/h		13619
Volume Ratio (VR)	0.257	Weaving Segment Capacity (cw), veh/h		9788
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		11060
Maximum Weaving Length (LMAX), ft	3561	Volume-to-Capacity Ratio (v/c)		1.11

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	8905	562	23	688
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10592	668	27	818
Weaving Flow Rate (vw), pc/h	1486	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10619	Density-Based Capacity (ciWL), pc/h/ln		2211
Total Flow Rate (v), pc/h	12105	Demand Flow-Based Capacity (ciW), pc/h		19512
Volume Ratio (VR)	0.123	Weaving Segment Capacity (cw), veh/h		9784
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		11055
Maximum Weaving Length (LMAX), ft	3764	Volume-to-Capacity Ratio (v/c)		1.09

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAI), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	8562	595	17	906
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10184	708	20	1078
Weaving Flow Rate (vw), pc/h	1786	Freeway Max Capacity (cIFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10204	Density-Based Capacity (cIWL), pc/h/ln		2177
Total Flow Rate (v), pc/h	11990	Demand Flow-Based Capacity (cIW), pc/h		16107
Volume Ratio (VR)	0.149	Weaving Segment Capacity (cW), veh/h		9633
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		10885
Maximum Weaving Length (LMAX), ft	4021	Volume-to-Capacity Ratio (v/c)		1.10

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (Sw), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	10488	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	3119
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.33
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	2800	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	9175	912	23	627
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10913	1085	27	746
Weaving Flow Rate (vw), pc/h	1831	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10940	Density-Based Capacity (ciWL), pc/h/ln		2311
Total Flow Rate (v), pc/h	12771	Demand Flow-Based Capacity (ciW), pc/h		16783
Volume Ratio (VR)	0.143	Weaving Segment Capacity (cw), veh/h		10226
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		11555
Maximum Weaving Length (LMAX), ft	3962	Volume-to-Capacity Ratio (v/c)		1.11

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAI), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7984	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2374
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.01
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/13/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2343	1979	31	1148
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2787	2354	37	1365
Weaving Flow Rate (wv), pc/h	3719	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2824	Density-Based Capacity (ciWL), pc/h/ln		1951
Total Flow Rate (v), pc/h	6543	Demand Flow-Based Capacity (ciW), pc/h		6162
Volume Ratio (VR)	0.568	Weaving Segment Capacity (cw), veh/h		5453
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		6162
Maximum Weaving Length (LMAX), ft	7066	Volume-to-Capacity Ratio (v/c)		1.06

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	2632	661	21	1689
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3131	786	25	2009
Weaving Flow Rate (vw), pc/h	2795	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3156	Density-Based Capacity (ciWL), pc/h/ln		2040
Total Flow Rate (v), pc/h	5951	Demand Flow-Based Capacity (ciW), pc/h		7447
Volume Ratio (VR)	0.470	Weaving Segment Capacity (cw), veh/h		6590
Minimum Lane Change Rate (LCMIN), lc/h	786	Adjusted Weaving Area Capacity, pc/h		7446
Maximum Weaving Length (LMAX), ft	5912	Volume-to-Capacity Ratio (v/c)		0.80

Speed and Density

Non-Weaving Vehicle Index (INW)	757	Average Weaving Speed (SW), mi/h	57.1
Non-Weaving Lane Change Rate (LCNW), lc/h	530	Average Non-Weaving Speed (SNW), mi/h	57.2
Weaving Lane Change Rate (LCW), lc/h	1237	Average Speed (S), mi/h	57.2
Weaving Lane Change Rate (LCAI), lc/h	1767	Density (D), pc/mi/ln	26.0

Weaving Intensity Factor (W)	0.307	Level of Service (LOS)	C
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3492	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2076
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.89
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3327	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1978
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3142	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1868
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2485	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	985
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.42
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	15.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1767	718
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2102	854
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.29	0.43

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.505
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	414
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	55.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.668	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	1688	Ramp Junction Speed (S), mi/h	59.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	11.9

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.0
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1767	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1051
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.45
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	16.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1767	353
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	2102	420
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.53	0.21

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.321
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	2102	Ramp Junction Speed (S), mi/h	61.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2522	Average Density (D), pc/mi/ln	20.7

Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	20.6
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2120	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1261
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1666	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	991
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.42
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	15.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1666	184
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	1982	219
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.46	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.300
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	61.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	1982	Ramp Junction Speed (S), mi/h	61.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	2201	Average Density (D), pc/mi/ln	17.9

Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.6
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1850	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1100
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3103	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1846
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2763	340
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3286	404
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.68	0.20

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.464
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3286	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	28.8

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	30.9
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2763	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1643
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.9
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2763	733
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3286	872
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.87	0.44

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.511
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	3286	Ramp Junction Speed (S), mi/h	55.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	4158	Average Density (D), pc/mi/ln	37.3

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	32.2
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3495	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2078
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.89
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3321	174
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3950	207
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.10

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.447
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3950	Ramp Junction Speed (S), mi/h	57.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	34.3

Level of Service (LOS)	E	Density in Ramp Influence Area (DR), pc/mi/ln	36.6
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3321	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1975
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3490	584	6	392
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4151	695	7	466
Weaving Flow Rate (wv), pc/h	1161	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4158	Density-Based Capacity (ciWL), pc/h/ln		2192
Total Flow Rate (v), pc/h	5319	Demand Flow-Based Capacity (ciW), pc/h		11009
Volume Ratio (VR)	0.218	Weaving Segment Capacity (cw), veh/h		5820
Minimum Lane Change Rate (LCMIN), lc/h	466	Adjusted Weaving Area Capacity, pc/h		6576
Maximum Weaving Length (LMAX), ft	4721	Volume-to-Capacity Ratio (v/c)		0.81

Speed and Density

Non-Weaving Vehicle Index (INW)	1663	Average Weaving Speed (SW), mi/h	57.3
Non-Weaving Lane Change Rate (LCNW), lc/h	2063	Average Non-Weaving Speed (SNW), mi/h	58.1
Weaving Lane Change Rate (LCW), lc/h	815	Average Speed (S), mi/h	57.9
Weaving Lane Change Rate (LCAII), lc/h	2878	Density (D), pc/mi/ln	30.6
Weaving Intensity Factor (W)	0.301	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3487	573	6	391
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4147	682	7	465
Weaving Flow Rate (wv), pc/h	1147	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4154	Density-Based Capacity (ciWL), pc/h/ln		2193
Total Flow Rate (v), pc/h	5301	Demand Flow-Based Capacity (ciW), pc/h		11111
Volume Ratio (VR)	0.216	Weaving Segment Capacity (cw), veh/h		5822
Minimum Lane Change Rate (LCMIN), lc/h	465	Adjusted Weaving Area Capacity, pc/h		6579
Maximum Weaving Length (LMAX), ft	4700	Volume-to-Capacity Ratio (v/c)		0.81

Speed and Density

Non-Weaving Vehicle Index (INW)	1662	Average Weaving Speed (SW), mi/h	57.3
Non-Weaving Lane Change Rate (LCNW), lc/h	2060	Average Non-Weaving Speed (SNW), mi/h	58.2
Weaving Lane Change Rate (LCW), lc/h	814	Average Speed (S), mi/h	58.0
Weaving Lane Change Rate (LCAII), lc/h	2874	Density (D), pc/mi/ln	30.5
Weaving Intensity Factor (W)	0.301	Level of Service (LOS)	D

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3241	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1928
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2338	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1390
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	21.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	1987	420	7	653
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	2363	500	8	777
Weaving Flow Rate (vw), pc/h	1277	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	2371	Density-Based Capacity (ciWL), pc/h/ln		2084
Total Flow Rate (v), pc/h	3648	Demand Flow-Based Capacity (ciW), pc/h		6857
Volume Ratio (VR)	0.350	Weaving Segment Capacity (cw), veh/h		5533
Minimum Lane Change Rate (LCMIN), lc/h	1277	Adjusted Weaving Area Capacity, pc/h		6252
Maximum Weaving Length (LMAX), ft	6126	Volume-to-Capacity Ratio (v/c)		0.58

Speed and Density

Non-Weaving Vehicle Index (INW)	948	Average Weaving Speed (SW), mi/h	58.0
Non-Weaving Lane Change Rate (LCNW), lc/h	995	Average Non-Weaving Speed (SNW), mi/h	55.0
Weaving Lane Change Rate (LCW), lc/h	1626	Average Speed (S), mi/h	56.0
Weaving Lane Change Rate (LCAI), lc/h	2621	Density (D), pc/mi/ln	21.7

Weaving Intensity Factor (W)	0.280	Level of Service (LOS)	C
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2428	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1444
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5542	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1648
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6200	1243	57	638
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7374	1478	68	759
Weaving Flow Rate (vw), pc/h	2237	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7442	Density-Based Capacity (ciWL), pc/h/ln		2301
Total Flow Rate (v), pc/h	9679	Demand Flow-Based Capacity (ciW), pc/h		15152
Volume Ratio (VR)	0.231	Weaving Segment Capacity (cw), veh/h		8146
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		9205
Maximum Weaving Length (LMAX), ft	3290	Volume-to-Capacity Ratio (v/c)		1.05

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAI), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5944	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1768
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (L _s), ft	1100	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V _i), veh/h	5561	1100	29	507
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (f _{HV})	0.885	0.885	0.885	0.885
Flow Rate (v _i), pc/h	6614	1308	34	603
Weaving Flow Rate (v _w), pc/h	1911	Freeway Max Capacity (c _{iFL}), pc/h/ln		2400
Non-Weaving Flow Rate (v _{NW}), pc/h	6648	Density-Based Capacity (c _{iWL}), pc/h/ln		2119
Total Flow Rate (v), pc/h	8559	Demand Flow-Based Capacity (c _{iW}), pc/h		10762
Volume Ratio (VR)	0.223	Weaving Segment Capacity (c _w), veh/h		7501
Minimum Lane Change Rate (LC _{MIN}), lc/h	0	Adjusted Weaving Area Capacity, pc/h		8476
Maximum Weaving Length (L _{MAX}), ft	4773	Volume-to-Capacity Ratio (v/c)		1.01

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (S _w), mi/h	-
Non-Weaving Lane Change Rate (LC _{NW}), lc/h	-	Average Non-Weaving Speed (S _{NW}), mi/h	-
Weaving Lane Change Rate (LC _w), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LC _{All}), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6150	210	12	511
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7315	250	14	608
Weaving Flow Rate (vw), pc/h	858	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7329	Density-Based Capacity (ciWL), pc/h/ln		2352
Total Flow Rate (v), pc/h	8187	Demand Flow-Based Capacity (ciW), pc/h		33333
Volume Ratio (VR)	0.105	Weaving Segment Capacity (cw), veh/h		10408
Minimum Lane Change Rate (LCMIN), lc/h	250	Adjusted Weaving Area Capacity, pc/h		11760
Maximum Weaving Length (LMAX), ft	2022	Volume-to-Capacity Ratio (v/c)		0.70

Speed and Density

Non-Weaving Vehicle Index (INW)	2052	Average Weaving Speed (SW), mi/h	50.4
Non-Weaving Lane Change Rate (LCNW), lc/h	3323	Average Non-Weaving Speed (SNW), mi/h	60.3
Weaving Lane Change Rate (LCW), lc/h	1029	Average Speed (S), mi/h	59.1
Weaving Lane Change Rate (LCAI), lc/h	4352	Density (D), pc/mi/ln	27.7

Weaving Intensity Factor (W)	0.553	Level of Service (LOS)	C
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HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4023	1208	92	2338
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4785	1437	109	2781
Weaving Flow Rate (vw), pc/h	4218	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4894	Density-Based Capacity (ciWL), pc/h/ln		2042
Total Flow Rate (v), pc/h	9112	Demand Flow-Based Capacity (ciW), pc/h		7559
Volume Ratio (VR)	0.463	Weaving Segment Capacity (cw), veh/h		6690
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		7559
Maximum Weaving Length (LMAX), ft	5831	Volume-to-Capacity Ratio (v/c)		1.21

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAI), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6946	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2754
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.17
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6426	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2548
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.08
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4621	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1832
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4284	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1698
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4105	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1221
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	3/18/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4076	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1212
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4058	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1207
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4807	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1430
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, In	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4635	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1103
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	17.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-I-15 to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5454	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1622
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Etiwanda Ave. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4495	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1336
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Country Village Rd. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4045	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1203
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	18.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pedley Rd. to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4435	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1319
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	20.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pyrite St. to Byrne Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5002	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1487
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Byrne Rd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5556	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2203
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.94
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	55.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.4
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Valley Way to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6303	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2499
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.06
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Rubidoux Blvd. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6232	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2471
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.05
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Market St. to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7352	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2915
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.24
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Main St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	700	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	0.33	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4211	539	74	632
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5009	641	88	752
Weaving Flow Rate (wv), pc/h	1393	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5097	Density-Based Capacity (ciWL), pc/h/ln		2095
Total Flow Rate (v), pc/h	6490	Demand Flow-Based Capacity (ciW), pc/h		11163
Volume Ratio (VR)	0.215	Weaving Segment Capacity (cw), veh/h		7416
Minimum Lane Change Rate (LCMIN), lc/h	752	Adjusted Weaving Area Capacity, pc/h		8380
Maximum Weaving Length (LMAX), ft	4690	Volume-to-Capacity Ratio (v/c)		0.77

Speed and Density

Non-Weaving Vehicle Index (INW)	119	Average Weaving Speed (SW), mi/h	53.5
Non-Weaving Lane Change Rate (LCNW), lc/h	659	Average Non-Weaving Speed (SNW), mi/h	56.8
Weaving Lane Change Rate (LCW), lc/h	909	Average Speed (S), mi/h	56.1
Weaving Lane Change Rate (LCAII), lc/h	1568	Density (D), pc/mi/ln	28.9
Weaving Intensity Factor (W)	0.427	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-SR-91 to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5733	1200	27	417
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6819	1427	32	496
Weaving Flow Rate (wv), pc/h	1923	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6851	Density-Based Capacity (ciWL), pc/h/ln		2242
Total Flow Rate (v), pc/h	8774	Demand Flow-Based Capacity (ciW), pc/h		15982
Volume Ratio (VR)	0.219	Weaving Segment Capacity (cw), veh/h		9921
Minimum Lane Change Rate (LCMIN), lc/h	1427	Adjusted Weaving Area Capacity, pc/h		11210
Maximum Weaving Length (LMAX), ft	3165	Volume-to-Capacity Ratio (v/c)		0.78

Speed and Density

Non-Weaving Vehicle Index (INW)	1507	Average Weaving Speed (SW), mi/h	49.3
Non-Weaving Lane Change Rate (LCNW), lc/h	1736	Average Non-Weaving Speed (SNW), mi/h	51.3
Weaving Lane Change Rate (LCW), lc/h	2091	Average Speed (S), mi/h	50.8
Weaving Lane Change Rate (LCAII), lc/h	3827	Density (D), pc/mi/ln	34.5
Weaving Intensity Factor (W)	0.604	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-3rd St. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1300	Number of Maneuver Lanes (NWL), In	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6504	923	21	429
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7736	1098	25	510
Weaving Flow Rate (wv), pc/h	1608	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7761	Density-Based Capacity (ciWL), pc/h/ln		2174
Total Flow Rate (v), pc/h	9369	Demand Flow-Based Capacity (ciW), pc/h		13953
Volume Ratio (VR)	0.172	Weaving Segment Capacity (cw), veh/h		9620
Minimum Lane Change Rate (LCMIN), lc/h	1098	Adjusted Weaving Area Capacity, pc/h		10870
Maximum Weaving Length (LMAX), ft	4252	Volume-to-Capacity Ratio (v/c)		0.86

Speed and Density

Non-Weaving Vehicle Index (INW)	2018	Average Weaving Speed (SW), mi/h	47.7
Non-Weaving Lane Change Rate (LCNW), lc/h	3420	Average Non-Weaving Speed (SNW), mi/h	53.1
Weaving Lane Change Rate (LCW), lc/h	1841	Average Speed (S), mi/h	52.1
Weaving Lane Change Rate (LCAII), lc/h	5261	Density (D), pc/mi/ln	36.0
Weaving Intensity Factor (W)	0.681	Level of Service (LOS)	E

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-University Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6788	708	16	640
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	8074	842	19	761
Weaving Flow Rate (vw), pc/h	1603	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	8093	Density-Based Capacity (ciWL), pc/h/ln		2164
Total Flow Rate (v), pc/h	9696	Demand Flow-Based Capacity (ciW), pc/h		14545
Volume Ratio (VR)	0.165	Weaving Segment Capacity (cw), veh/h		9576
Minimum Lane Change Rate (LCMIN), lc/h	761	Adjusted Weaving Area Capacity, pc/h		10820
Maximum Weaving Length (LMAX), ft	4181	Volume-to-Capacity Ratio (v/c)		0.90

Speed and Density

Non-Weaving Vehicle Index (INW)	1780	Average Weaving Speed (SW), mi/h	48.0
Non-Weaving Lane Change Rate (LCNW), lc/h	2920	Average Non-Weaving Speed (SNW), mi/h	55.2
Weaving Lane Change Rate (LCW), lc/h	1425	Average Speed (S), mi/h	53.9
Weaving Lane Change Rate (LCAI), lc/h	4345	Density (D), pc/mi/ln	36.0

Weaving Intensity Factor (W)	0.668	Level of Service (LOS)	E
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Martin Luther King Blvd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8462	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2516
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Central Ave. to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	5	Segment Type	Freeway
Segment Length (L _s), ft	2800	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V _i), veh/h	7569	1214	24	794
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (f _{HV})	0.885	0.885	0.885	0.885
Flow Rate (v _i), pc/h	9003	1444	29	944
Weaving Flow Rate (v _w), pc/h	2388	Freeway Max Capacity (c _{iFL}), pc/h/ln		2400
Non-Weaving Flow Rate (v _{NW}), pc/h	9032	Density-Based Capacity (c _{iWL}), pc/h/ln		2260
Total Flow Rate (v), pc/h	11420	Demand Flow-Based Capacity (c _{iW}), pc/h		11483
Volume Ratio (VR)	0.209	Weaving Segment Capacity (c _w), veh/h		10000
Minimum Lane Change Rate (LC _{MIN}), lc/h	0	Adjusted Weaving Area Capacity, pc/h		11299
Maximum Weaving Length (L _{MAX}), ft	4628	Volume-to-Capacity Ratio (v/c)		1.01

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (S _w), mi/h	-
Non-Weaving Lane Change Rate (LC _{NW}), lc/h	-	Average Non-Weaving Speed (S _{NW}), mi/h	-
Weaving Lane Change Rate (LC _w), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LC _{All}), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Box Springs Rd. to I-215	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8980	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2670
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.14
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-I-215 to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4813	1289	15	317
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	5725	1533	18	377
Weaving Flow Rate (wv), pc/h	1910	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	5743	Density-Based Capacity (ciWL), pc/h/ln		2225
Total Flow Rate (v), pc/h	7653	Demand Flow-Based Capacity (ciW), pc/h		14000
Volume Ratio (VR)	0.250	Weaving Segment Capacity (cw), veh/h		9846
Minimum Lane Change Rate (LCMIN), lc/h	1533	Adjusted Weaving Area Capacity, pc/h		11125
Maximum Weaving Length (LMAX), ft	3488	Volume-to-Capacity Ratio (v/c)		0.69

Speed and Density

Non-Weaving Vehicle Index (INW)	1378	Average Weaving Speed (SW), mi/h	51.4
Non-Weaving Lane Change Rate (LCNW), lc/h	1122	Average Non-Weaving Speed (SNW), mi/h	51.6
Weaving Lane Change Rate (LCW), lc/h	2237	Average Speed (S), mi/h	51.5
Weaving Lane Change Rate (LCAII), lc/h	3359	Density (D), pc/mi/ln	29.7
Weaving Intensity Factor (W)	0.509	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-EB-Day St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	4	Segment Type	Freeway
Segment Length (Ls), ft	1200	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	4176	1164	22	1926
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	4967	1384	26	2291
Weaving Flow Rate (wv), pc/h	3675	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	4993	Density-Based Capacity (ciWL), pc/h/ln		2080
Total Flow Rate (v), pc/h	8668	Demand Flow-Based Capacity (ciW), pc/h		8255
Volume Ratio (VR)	0.424	Weaving Segment Capacity (cw), veh/h		7305
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		8254
Maximum Weaving Length (LMAX), ft	5386	Volume-to-Capacity Ratio (v/c)		1.05

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAII), lc/h	-	Density (D), pc/mi/ln	-
Weaving Intensity Factor (W)	-	Level of Service (LOS)	F

HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Pigeon Pass Rd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4723	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2809
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.20
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Heacock St. to Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4073	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2422
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Perris Blvd. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3847	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2288
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.98
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	53.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	42.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Nason St. to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4552	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1805
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3590	962
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	4270	1144
Capacity (c), pc/h	7200	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.57

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.531
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1247
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	55.1
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.601	Outer Lanes Freeway Speed (SO), mi/h	75.8
Flow in Lanes 1 and 2 (v12), pc/h	3023	Ramp Junction Speed (S), mi/h	59.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.8

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	28.4
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3590	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2135
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.91
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	37.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	700
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3590	484
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	4270	576
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	1.01	0.29

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	776.0	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	-
Downstream Equilibrium Distance (LEQ), ft	0.0	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	-
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	-
Flow in Lanes 1 and 2 (v12), pc/h	4270	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	4846	Average Density (D), pc/mi/ln	-

Level of Service (LOS)	F	Density in Ramp Influence Area (DR), pc/mi/ln	-
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp to Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4074	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2423
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3132	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1862
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	800
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3132	176
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3725	209
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.10

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.464
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	3725	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	3934	Average Density (D), pc/mi/ln	34.5

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	31.1
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-East of Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3308	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1968
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-East of Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2975	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1770
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Redlands Blvd. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2658	317
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3161	377
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.19

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.462
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.1
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3161	Ramp Junction Speed (S), mi/h	57.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	27.7

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.9
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Redlands Blvd. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2658	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1580
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Merge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	850
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2658	633
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3161	753
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.38

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.457
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	70.0
Flow in Lanes 1 and 2 (v12), pc/h	3161	Ramp Junction Speed (S), mi/h	57.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	3914	Average Density (D), pc/mi/ln	34.2

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	30.4
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Redlands Blvd. On-Ramp to Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3291	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1957
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Diverge Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Eastbound-Moreno Beach Dr. Off-Ramp	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), In	2	1
Free-Flow Speed (FFS), mi/h	70.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	175
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3045	246
Peak Hour Factor (PHF)	0.95	0.95
Total Trucks, %	13.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885
Flow Rate (vi),pc/h	3622	293
Capacity (c), pc/h	4800	2000
Volume-to-Capacity Ratio (v/c)	0.75	0.15

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.454
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	57.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	76.8
Flow in Lanes 1 and 2 (v12), pc/h	3622	Ramp Junction Speed (S), mi/h	57.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	31.6

Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	33.8
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Between Moreno Beach Dr. Ramps	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3045	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1811
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Moreno Beach Dr. to Nason St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (L _s), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	0
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V _i), veh/h	3609	792	7	172
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (f _{HV})	0.885	0.885	0.885	0.885
Flow Rate (v _i), pc/h	4293	942	8	205
Weaving Flow Rate (v _w), pc/h	1147	Freeway Max Capacity (c _{iFL}), pc/h/ln		2400
Non-Weaving Flow Rate (v _{NW}), pc/h	4301	Density-Based Capacity (c _{iWL}), pc/h/ln		2197
Total Flow Rate (v), pc/h	5448	Demand Flow-Based Capacity (c _{iW}), pc/h		11374
Volume Ratio (VR)	0.211	Weaving Segment Capacity (c _w), veh/h		5833
Minimum Lane Change Rate (LC _{MIN}), lc/h	205	Adjusted Weaving Area Capacity, pc/h		6591
Maximum Weaving Length (L _{MAX}), ft	4649	Volume-to-Capacity Ratio (v/c)		0.83

Speed and Density

Non-Weaving Vehicle Index (INW)	1720	Average Weaving Speed (S _w), mi/h	57.6
Non-Weaving Lane Change Rate (LC _{NW}), lc/h	2204	Average Non-Weaving Speed (S _{NW}), mi/h	59.8
Weaving Lane Change Rate (LC _w), lc/h	554	Average Speed (S), mi/h	59.3
Weaving Lane Change Rate (LC _{All}), lc/h	2758	Density (D), pc/mi/ln	30.6

Weaving Intensity Factor (W)	0.291	Level of Service (LOS)	D
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Nason St. Perris Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3223	Heavy Vehicle Adjustment Factor (fhv)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1916
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Perris Blvd. to Heacock St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3547	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2110
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.90
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	57.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	36.7
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Heacock St. to Pigeon Pass Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3130	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1862
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pigeon Pass Rd. to Day St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	3	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	3281	462	7	153
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	3902	550	8	182
Weaving Flow Rate (vw), pc/h	732	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	3910	Density-Based Capacity (ciWL), pc/h/ln		2238
Total Flow Rate (v), pc/h	4642	Demand Flow-Based Capacity (ciW), pc/h		15190
Volume Ratio (VR)	0.158	Weaving Segment Capacity (cw), veh/h		5942
Minimum Lane Change Rate (LCMIN), lc/h	732	Adjusted Weaving Area Capacity, pc/h		6714
Maximum Weaving Length (LMAX), ft	4111	Volume-to-Capacity Ratio (v/c)		0.69

Speed and Density

Non-Weaving Vehicle Index (INW)	1564	Average Weaving Speed (SW), mi/h	57.2
Non-Weaving Lane Change Rate (LCNW), lc/h	1819	Average Non-Weaving Speed (SNW), mi/h	57.3
Weaving Lane Change Rate (LCW), lc/h	1081	Average Speed (S), mi/h	57.3
Weaving Lane Change Rate (LCAII), lc/h	2900	Density (D), pc/mi/ln	27.0

Weaving Intensity Factor (W)	0.303	Level of Service (LOS)	C
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Day St. I-215	Unit	United States Customary

Geometric Data

Number of Lanes, In	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3656	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2174
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	38.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-I-215 to Box Springs Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8112	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2412
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Box Springs Rd. to Central Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	2000	Number of Maneuver Lanes (NWL), ln	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	Yes

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	8585	1208	50	528
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	10211	1437	59	628
Weaving Flow Rate (vw), pc/h	2065	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	10270	Density-Based Capacity (ciWL), pc/h/ln		2351
Total Flow Rate (v), pc/h	12335	Demand Flow-Based Capacity (ciW), pc/h		20958
Volume Ratio (VR)	0.167	Weaving Segment Capacity (cw), veh/h		8323
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		9405
Maximum Weaving Length (LMAX), ft	2636	Volume-to-Capacity Ratio (v/c)		1.31

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAI), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Central Ave. to Martin Luther King Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6656	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1979
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-Martin Luther King Blvd. to University Ave.	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	4	Segment Type	Freeway
Segment Length (Ls), ft	1100	Number of Maneuver Lanes (NWL), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), lc	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6277	656	13	587
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7466	780	15	698
Weaving Flow Rate (vw), pc/h	1478	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7481	Density-Based Capacity (ciWL), pc/h/ln		2164
Total Flow Rate (v), pc/h	8959	Demand Flow-Based Capacity (ciW), pc/h		14545
Volume Ratio (VR)	0.165	Weaving Segment Capacity (cw), veh/h		7661
Minimum Lane Change Rate (LCMIN), lc/h	0	Adjusted Weaving Area Capacity, pc/h		8656
Maximum Weaving Length (LMAX), ft	4181	Volume-to-Capacity Ratio (v/c)		1.04

Speed and Density

Non-Weaving Vehicle Index (INW)	-	Average Weaving Speed (SW), mi/h	-
Non-Weaving Lane Change Rate (LCNW), lc/h	-	Average Non-Weaving Speed (SNW), mi/h	-
Weaving Lane Change Rate (LCW), lc/h	-	Average Speed (S), mi/h	-
Weaving Lane Change Rate (LCAI), lc/h	-	Density (D), pc/mi/ln	-

Weaving Intensity Factor (W)	-	Level of Service (LOS)	F
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HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-University Ave. to 3rd St.	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1400	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	6493	468	13	439
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	7723	557	15	522
Weaving Flow Rate (wv), pc/h	1079	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	7738	Density-Based Capacity (ciWL), pc/h/ln		2340
Total Flow Rate (v), pc/h	8817	Demand Flow-Based Capacity (ciW), pc/h		28689
Volume Ratio (VR)	0.122	Weaving Segment Capacity (cw), veh/h		10354
Minimum Lane Change Rate (LCMIN), lc/h	557	Adjusted Weaving Area Capacity, pc/h		11699
Maximum Weaving Length (LMAX), ft	2188	Volume-to-Capacity Ratio (v/c)		0.75

Speed and Density

Non-Weaving Vehicle Index (INW)	2167	Average Weaving Speed (SW), mi/h	49.5
Non-Weaving Lane Change Rate (LCNW), lc/h	3415	Average Non-Weaving Speed (SNW), mi/h	57.5
Weaving Lane Change Rate (LCW), lc/h	1336	Average Speed (S), mi/h	56.4
Weaving Lane Change Rate (LCAII), lc/h	4751	Density (D), pc/mi/ln	31.3
Weaving Intensity Factor (W)	0.593	Level of Service (LOS)	D

HCS7 Freeway Weaving Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-WB-3rd St. to SR-91	Unit	United States Customary

Geometric Data

Number of Lanes (N), In	5	Segment Type	Freeway
Segment Length (Ls), ft	1150	Number of Maneuver Lanes (NWL), In	3
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LCRF), Ic	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LCFR), Ic	0
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LCRR), Ic	0
Interchange Density (ID), int/mi	2.00	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (Vi), veh/h	5585	1164	101	1377
Peak Hour Factor (PHF)	0.95	0.95	0.95	0.95
Total Trucks, %	13.00	13.00	13.00	13.00
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.885	0.885	0.885
Flow Rate (vi), pc/h	6643	1384	120	1638
Weaving Flow Rate (wv), pc/h	3022	Freeway Max Capacity (ciFL), pc/h/ln		2400
Non-Weaving Flow Rate (vNW), pc/h	6763	Density-Based Capacity (ciWL), pc/h/ln		2173
Total Flow Rate (v), pc/h	9785	Demand Flow-Based Capacity (ciW), pc/h		11327
Volume Ratio (VR)	0.309	Weaving Segment Capacity (cw), veh/h		9616
Minimum Lane Change Rate (LCMIN), lc/h	1384	Adjusted Weaving Area Capacity, pc/h		10866
Maximum Weaving Length (LMAX), ft	4115	Volume-to-Capacity Ratio (v/c)		0.90

Speed and Density

Non-Weaving Vehicle Index (INW)	1555	Average Weaving Speed (SW), mi/h	49.4
Non-Weaving Lane Change Rate (LCNW), lc/h	1894	Average Non-Weaving Speed (SNW), mi/h	50.6
Weaving Lane Change Rate (LCW), lc/h	2069	Average Speed (S), mi/h	50.2
Weaving Lane Change Rate (LCAII), lc/h	3963	Density (D), pc/mi/ln	39.0
Weaving Intensity Factor (W)	0.600	Level of Service (LOS)	E

HCS7 Basic Freeway Report

Project Information

Analyst		Date	5/10/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-SR-91 to Main St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6212	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2463
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.05
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Main St. to Market St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6864	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	2721
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.16
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Market St. to Rubidoux Blvd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7377	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2925
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.24
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Rubidoux Blvd. to Valley Way	Unit	United States Customary

Geometric Data

Number of Lanes, In	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6567	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2604
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.11
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Valley Way to Pyrite St.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5882	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1749
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pyrite St. to Pedley Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6296	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1872
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Pedley Rd. to Country Village Rd.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6256	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1860
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.0
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Country Village Rd. to Etiwanda Ave.	Unit	United States Customary

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6649	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1977
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.8
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst		Date	10/5/2020
Agency	Translutions	Analysis Year	General Plan Build-Out With Project (Alt. 2 Warehouse) Conditions
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Moreno Valley Trade Center-Westbound-Etiwanda Ave. to I-15	Unit	United States Customary

Geometric Data

Number of Lanes, In	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5331	Heavy Vehicle Adjustment Factor (fHV)	0.885
Peak Hour Factor	0.95	Flow Rate (V _p), pc/h/ln	1268
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c _{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (ET)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	19.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS _{adj}), mi/h	65.0		

APPENDIX E: QUEUE WORKSHEETS

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	854	143	789	65	165	337	44	368
v/c Ratio	0.51	0.59	0.66	0.46	0.07	0.69	0.30	0.42	0.44
Control Delay	67.8	30.2	87.1	14.2	1.3	64.0	18.9	67.0	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	30.2	87.1	14.2	1.3	64.0	18.9	67.0	24.8
Queue Length 50th (ft)	50	265	118	112	1	123	58	34	70
Queue Length 95th (ft)	98	353	m169	125	m4	190	98	74	124
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	135	1439	285	1702	945	315	1121	105	830
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.59	0.50	0.46	0.07	0.52	0.30	0.42	0.44

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.2: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	34	263	167	129	584	21	272	400	179	24	449
v/c Ratio	0.32	0.57	0.35	0.65	0.93	0.03	0.92	0.43	0.17	0.23	0.69
Control Delay	62.8	44.2	13.6	70.4	37.0	0.1	85.9	24.6	1.9	59.5	41.5
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	62.8	44.2	13.6	70.4	37.0	0.1	85.9	24.6	1.9	59.5	41.5
Queue Length 50th (ft)	26	167	28	83	308	0	209	232	3	18	318
Queue Length 95th (ft)	55	229	69	130	299	m0	#314	291	20	43	395
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	105	529	535	240	665	721	300	933	1090	105	652
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	0.32	0.50	0.31	0.54	0.88	0.03	0.91	0.43	0.16	0.23	0.69

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.

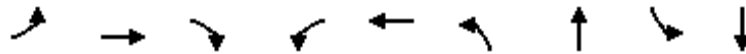
Queues
Int.3: Lasselle St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	915	581	675	387	612	504	131	574
v/c Ratio	0.49	0.67	0.79	0.32	0.66	0.52	0.53	0.57	0.71
Control Delay	44.5	21.0	34.1	10.6	53.1	34.6	14.8	64.8	47.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.5	21.0	34.1	10.6	53.1	34.6	14.8	64.8	47.0
Queue Length 50th (ft)	45	213	110	52	146	201	183	51	211
Queue Length 95th (ft)	76	260	136	69	200	259	266	85	275
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	233	1374	817	2087	583	1184	993	233	811
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.67	0.71	0.32	0.66	0.52	0.51	0.56	0.71

Intersection Summary

Queues
Int.4: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	272	246	257	180	216	107	998	20	1535
v/c Ratio	0.92	0.52	0.75	0.67	0.51	0.89	0.48	0.19	0.83
Control Delay	85.9	51.4	34.3	45.6	32.4	113.0	16.6	58.3	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.9	51.4	34.3	45.6	32.4	113.0	16.6	58.3	29.8
Queue Length 50th (ft)	209	95	81	75	43	84	192	15	500
Queue Length 95th (ft)	#273	105	113	#192	51	#148	264	35	493
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	300	709	437	267	558	120	2061	105	1859
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.35	0.59	0.67	0.39	0.89	0.48	0.19	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Int.5: Nason St & Alessandro Blvd

Moreno Valley Trade Center
03/30/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	214	94	132	427	176	92	552	30	73	864	105
v/c Ratio	0.36	0.21	0.18	0.49	0.80	0.30	0.53	0.34	0.04	0.49	0.40	0.14
Control Delay	38.5	14.5	1.2	50.7	39.2	3.1	62.4	25.2	0.1	63.4	27.2	4.6
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	38.5	14.5	1.2	50.7	39.2	3.1	62.4	25.2	0.1	63.4	27.2	4.6
Queue Length 50th (ft)	35	31	0	41	338	6	69	148	0	55	169	0
Queue Length 95th (ft)	57	35	0	69	401	19	114	217	0	96	231	26
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	260	1353	664	292	744	739	210	1619	789	180	2161	741
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	0.35	0.16	0.14	0.45	0.57	0.24	0.44	0.34	0.04	0.41	0.40	0.14

Intersection Summary

Queues
Int.6: Nason St & Iris Ave

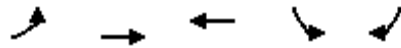


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	353	938	18	680	147	13	54	172	21	328
v/c Ratio	0.48	0.38	0.16	0.48	0.27	0.12	0.17	0.44	0.03	0.31
Control Delay	36.4	14.5	80.4	17.4	1.7	56.5	40.4	44.9	26.2	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	14.5	80.4	17.4	1.7	56.5	40.4	44.9	26.2	4.5
Queue Length 50th (ft)	118	92	15	78	1	10	32	116	9	36
Queue Length 95th (ft)	160	216	m36	95	4	29	66	175	28	64
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	729	2465	135	1426	550	105	314	391	721	1057
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.38	0.13	0.48	0.27	0.12	0.17	0.44	0.03	0.31

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

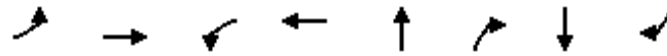
Queues
Int.7: Eucalyptus Ave & Fir Ave



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	72	328	345	151	56
v/c Ratio	0.23	0.15	0.24	0.25	0.10
Control Delay	23.6	4.2	30.1	29.7	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	4.2	30.1	29.7	7.5
Queue Length 50th (ft)	26	38	109	84	0
Queue Length 95th (ft)	45	22	142	122	23
Internal Link Dist (ft)		1543	3135	387	
Turn Bay Length (ft)	200			250	400
Base Capacity (vph)	361	2135	1439	616	588
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.20	0.15	0.24	0.25	0.10

Intersection Summary

Queues
Int.8: Oliver St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	261	580	34	473	124	33	54	222
v/c Ratio	0.58	0.24	0.29	0.37	0.42	0.09	0.14	0.43
Control Delay	30.1	8.4	59.4	37.8	50.6	0.5	39.9	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	8.4	59.4	37.8	50.6	0.5	39.9	8.0
Queue Length 50th (ft)	175	43	26	110	88	0	34	0
Queue Length 95th (ft)	280	49	59	142	147	0	70	62
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250			50		480
Base Capacity (vph)	451	2429	135	1293	293	355	390	512
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	0.58	0.24	0.25	0.37	0.42	0.09	0.14	0.43

Intersection Summary

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	97	5	239	402	93	246
v/c Ratio	0.54	0.01	0.21	0.31	0.27	0.16
Control Delay	62.3	15.0	7.5	0.9	43.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	15.0	7.5	0.9	43.8	2.4
Queue Length 50th (ft)	73	0	107	0	62	27
Queue Length 95th (ft)	121	8	58	0	109	52
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	571	526	1158	1301	345	1585
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.01	0.21	0.31	0.27	0.16

Intersection Summary

Queues
 Int.10: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	55	482	619	146	359
v/c Ratio	0.30	0.81	0.60	0.16	0.73
Control Delay	51.7	15.5	27.8	6.3	48.8
Queue Delay	0.0	0.0	2.5	0.0	0.0
Total Delay	51.7	15.5	30.3	6.3	48.8
Queue Length 50th (ft)	41	0	308	0	270
Queue Length 95th (ft)	68	55	507	80	343
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	377	718	1026	935	489
Starvation Cap Reductn	0	0	278	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.67	0.83	0.16	0.73

Intersection Summary

Queues
Int.11: Moreno Beach Dr & Eucalyptus Ave

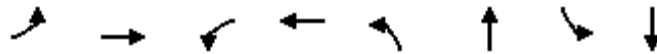
Moreno Valley Trade Center
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	227	77	95	24	40	45	113	493	20	164	480	182
v/c Ratio	0.60	0.30	0.30	0.21	0.31	0.18	0.38	0.24	0.02	0.67	0.25	0.19
Control Delay	49.7	44.5	7.9	65.6	64.3	1.6	48.7	15.0	0.1	57.3	30.1	14.7
Queue Delay	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.0	44.5	7.9	65.6	64.3	1.7	48.7	15.0	0.1	57.3	30.1	14.7
Queue Length 50th (ft)	61	61	7	17	31	0	79	98	0	129	151	43
Queue Length 95th (ft)	83	90	21	43	62	0	125	148	0	m180	203	m91
Internal Link Dist (ft)		3135			329			398				465
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	554	490	504	135	332	410	300	2064	974	406	1950	956
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	67	0	0	0	0	51	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	0.47	0.16	0.19	0.18	0.12	0.13	0.38	0.24	0.02	0.40	0.25	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	71	193	46	288	126	586	11	503
v/c Ratio	0.50	0.50	0.40	0.79	0.66	0.49	0.10	0.53
Control Delay	40.1	15.9	64.3	61.4	58.9	7.8	55.9	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	15.9	64.3	61.4	58.9	7.8	55.9	24.9
Queue Length 50th (ft)	53	41	35	212	98	67	8	268
Queue Length 95th (ft)	103	75	75	295	164	111	28	422
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	155	481	121	458	225	1189	105	949
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	0.46	0.40	0.38	0.63	0.56	0.49	0.10	0.53
Intersection Summary								

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	85	206	35	179	36	137	669	64	21	514
v/c Ratio	0.52	0.54	0.13	0.68	0.09	0.63	0.31	0.05	0.16	0.19
Control Delay	62.1	31.0	42.7	61.9	0.4	62.1	12.1	1.4	59.3	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	31.0	42.7	61.9	0.4	62.1	12.1	1.4	59.3	16.6
Queue Length 50th (ft)	64	40	24	134	0	76	84	0	16	105
Queue Length 95th (ft)	105	68	48	185	0	135	127	5	m32	145
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	270	1074	274	459	419	376	2171	1259	135	2712
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.19	0.13	0.39	0.09	0.36	0.31	0.05	0.16	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	106	45	274	67	346	12	428	269	184	500
v/c Ratio	0.58	0.33	0.75	0.23	0.64	0.11	0.18	0.23	0.70	0.16
Control Delay	63.8	57.3	58.0	43.8	10.1	55.7	21.6	1.1	78.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.8	57.3	58.0	43.8	10.1	55.7	21.6	1.1	78.3	7.0
Queue Length 50th (ft)	80	32	203	46	0	9	70	0	149	34
Queue Length 95th (ft)	120	62	242	73	44	26	106	13	200	48
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	240	300	511	585	737	107	2421	1296	376	3061
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.15	0.54	0.11	0.47	0.11	0.18	0.21	0.49	0.16

Intersection Summary

Queues
Int.24: Redlands Blvd & Ironwood Ave



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	134	19	31	496	4	805	132
v/c Ratio	0.69	0.08	0.30	0.33	0.04	0.57	0.11
Control Delay	64.8	34.1	57.5	0.9	54.3	10.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	34.1	57.5	0.9	54.3	10.1	3.4
Queue Length 50th (ft)	94	9	25	7	3	279	14
Queue Length 95th (ft)	143	29	57	14	14	396	34
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	259	303	105	1490	105	1423	1226
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.06	0.30	0.33	0.04	0.57	0.11
Intersection Summary							

Queues
Int.25: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	3	4	81	6	469	182	419	393
v/c Ratio	0.03	0.02	0.38	0.06	0.46	0.17	0.83	0.25
Control Delay	54.0	0.3	8.6	45.2	14.1	0.5	43.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	0.3	8.6	45.2	14.1	0.5	43.8	2.4
Queue Length 50th (ft)	2	0	0	4	137	0	302	19
Queue Length 95th (ft)	12	0	15	m10	257	2	327	110
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	283	348	367	105	1029	1217	522	1590
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	0.01	0.01	0.22	0.06	0.46	0.15	0.80	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.26: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	265	86	535	424	43
v/c Ratio	0.78	0.40	0.37	0.36	0.03
Control Delay	54.0	54.3	5.3	6.2	0.1
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	54.0	54.3	5.5	6.2	0.1
Queue Length 50th (ft)	165	63	157	44	0
Queue Length 95th (ft)	242	101	70	50	0
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	570	240	1442	1189	1363
Starvation Cap Reductn	0	0	301	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.36	0.47	0.36	0.03

Intersection Summary

Queues
Int.27: Redlands Blvd & Eucalyptus Ave



Lane Group	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	54	15	20	16	554	442	90
v/c Ratio	0.39	0.05	0.04	0.15	0.36	0.31	0.06
Control Delay	42.1	1.6	0.2	56.2	4.3	1.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	42.1	1.6	0.2	56.2	4.3	1.9	0.4
Queue Length 50th (ft)	38	1	0	12	60	4	1
Queue Length 95th (ft)	55	m1	0	31	157	59	3
Internal Link Dist (ft)	280		225		339	500	
Turn Bay Length (ft)				100			390
Base Capacity (vph)	315	315	607	135	1557	1447	1520
Starvation Cap Reductn	0	0	0	0	0	265	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.05	0.03	0.12	0.36	0.37	0.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.31: Redlands Blvd & Cottonwood Ave



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	35	49	26	444	392	33
v/c Ratio	0.23	0.27	0.18	0.27	0.26	0.03
Control Delay	41.9	15.3	41.0	2.1	4.2	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	15.3	41.0	2.1	4.2	1.9
Queue Length 50th (ft)	21	0	15	37	31	0
Queue Length 95th (ft)	43	28	35	61	112	8
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	631	597	256	1639	1535	1311
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.08	0.10	0.27	0.26	0.03
Intersection Summary						

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	921	127	716	71	57	201	53	258
v/c Ratio	0.57	0.54	0.62	0.41	0.07	0.42	0.25	0.39	0.31
Control Delay	62.0	24.0	55.1	5.2	0.1	61.9	23.9	60.7	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	24.0	55.1	5.2	0.1	61.9	23.9	60.7	25.6
Queue Length 50th (ft)	82	262	105	37	0	43	38	40	52
Queue Length 95th (ft)	136	336	m168	44	m0	86	76	81	96
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	270	1690	285	1748	942	165	806	165	822
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.54	0.45	0.41	0.08	0.35	0.25	0.32	0.31

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.2: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	432	224	103	293	23	177	402	114	15	429
v/c Ratio	0.27	0.85	0.43	0.66	0.67	0.04	0.77	0.43	0.11	0.14	0.60
Control Delay	47.4	57.2	18.3	61.6	24.6	0.3	71.9	24.3	3.3	56.9	35.6
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	47.4	57.2	18.3	61.6	24.6	0.3	71.9	24.3	3.3	56.9	35.6
Queue Length 50th (ft)	46	311	63	83	107	1	132	224	3	11	280
Queue Length 95th (ft)	95	421	131	#155	221	m0	#224	328	30	34	406
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	267	585	579	169	601	551	255	929	1016	105	721
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	0.26	0.74	0.39	0.61	0.49	0.04	0.69	0.43	0.11	0.14	0.60

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.

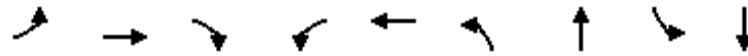
Queues
Int.3: Lasselle St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	149	755	668	763	236	585	427	195	808
v/c Ratio	0.57	0.63	0.81	0.39	0.62	0.51	0.44	0.61	0.75
Control Delay	42.4	17.7	34.1	14.9	59.0	35.5	12.2	60.5	42.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	17.7	34.1	14.9	59.0	35.5	12.2	60.5	42.5
Queue Length 50th (ft)	59	163	131	74	91	196	137	75	293
Queue Length 95th (ft)	94	195	160	94	135	253	202	114	368
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	262	1193	904	1959	379	1147	1016	350	1079
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.63	0.74	0.39	0.62	0.51	0.42	0.56	0.75

Intersection Summary

Queues
Int.4: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	164	55	164	185	48	1014	23	887
v/c Ratio	0.39	0.51	0.22	0.68	0.28	0.34	0.47	0.20	0.43
Control Delay	65.7	57.2	2.0	42.4	22.7	58.9	14.8	57.3	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.7	57.2	2.0	42.4	22.7	58.9	14.8	57.3	16.2
Queue Length 50th (ft)	31	64	0	79	28	36	220	17	199
Queue Length 95th (ft)	70	98	0	177	34	76	339	44	295
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	105	601	367	318	1018	150	2168	114	2078
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.27	0.15	0.52	0.18	0.32	0.47	0.20	0.43

Intersection Summary

Queues
Int.5: Nason St & Alessandro Blvd

Moreno Valley Trade Center
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	107	312	67	24	222	59	69	710	79	64	713	74
v/c Ratio	0.40	0.40	0.15	0.12	0.73	0.16	0.37	0.35	0.08	0.44	0.25	0.08
Control Delay	28.1	13.8	1.9	56.8	70.9	10.2	54.9	16.7	1.3	61.1	16.7	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	13.8	1.9	56.8	70.9	10.2	54.9	16.7	1.3	61.1	16.7	1.0
Queue Length 50th (ft)	39	79	7	10	177	2	50	155	0	48	110	0
Queue Length 95th (ft)	m54	m86	m9	m22	255	m13	97	248	11	92	160	8
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	350	1052	554	262	506	517	210	2045	966	196	2817	931
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	0.31	0.30	0.12	0.09	0.44	0.11	0.33	0.35	0.08	0.33	0.25	0.08

Intersection Summary

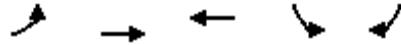
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	240	607	21	788	163	17	41	120	56	429
v/c Ratio	0.36	0.25	0.19	0.52	0.28	0.15	0.10	0.42	0.08	0.42
Control Delay	33.2	10.4	53.8	17.5	1.4	56.4	31.2	50.7	29.6	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	10.4	53.8	17.5	1.4	56.4	31.2	50.7	29.6	7.1
Queue Length 50th (ft)	81	54	17	71	0	13	16	85	24	73
Queue Length 95th (ft)	111	69	46	86	3	37	52	146	69	130
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	904	2455	135	1512	586	135	417	285	717	1032
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.25	0.16	0.52	0.28	0.13	0.10	0.42	0.08	0.42

Intersection Summary

Queues
 Int.7: Eucalyptus Ave & Fir Ave

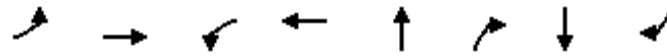


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	35	365	537	168	41
v/c Ratio	0.20	0.17	0.30	0.28	0.07
Control Delay	33.0	3.7	17.4	31.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	3.7	17.4	31.0	8.5
Queue Length 50th (ft)	17	29	145	95	0
Queue Length 95th (ft)	m37	17	142	154	26
Internal Link Dist (ft)		1543	3135	387	
Turn Bay Length (ft)	200			250	400
Base Capacity (vph)	225	2166	1782	601	565
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.17	0.30	0.28	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.8: Oliver St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	55	601	55	671	57	36	14	49
v/c Ratio	0.26	0.28	0.40	0.34	0.15	0.08	0.04	0.12
Control Delay	36.7	10.6	60.3	28.7	40.2	0.4	40.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	10.6	60.3	28.7	40.2	0.4	40.8	0.6
Queue Length 50th (ft)	38	50	41	143	36	0	9	0
Queue Length 95th (ft)	81	59	83	179	74	0	28	0
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250			50		480
Base Capacity (vph)	240	2138	255	1945	379	429	348	392
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	0.23	0.28	0.22	0.34	0.15	0.08	0.04	0.13

Intersection Summary

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	99	9	266	475	39	255
v/c Ratio	0.54	0.03	0.19	0.32	0.25	0.16
Control Delay	61.4	16.8	5.2	0.9	53.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	16.8	5.2	0.9	53.6	2.5
Queue Length 50th (ft)	74	0	54	37	28	29
Queue Length 95th (ft)	126	13	128	0	63	60
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	676	399	1419	1495	195	1580
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.02	0.19	0.32	0.20	0.16

Intersection Summary

Queues
 Int.10: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	68	536	637	171	336
v/c Ratio	0.33	0.82	0.61	0.18	0.73
Control Delay	51.0	14.6	12.6	0.4	47.5
Queue Delay	0.0	0.0	1.0	0.0	0.0
Total Delay	51.0	14.6	13.6	0.4	47.5
Queue Length 50th (ft)	51	0	123	0	254
Queue Length 95th (ft)	84	104	182	0	360
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	392	769	1037	953	458
Starvation Cap Reductn	0	0	186	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.17	0.70	0.75	0.18	0.73

Intersection Summary

Queues
Int.11: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
03/30/2020

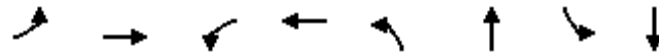


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	360	41	144	35	61	133	121	350	5	60	584	256
v/c Ratio	0.70	0.11	0.33	0.30	0.41	0.53	0.60	0.17	0.01	0.39	0.30	0.26
Control Delay	42.3	28.3	7.8	61.7	62.3	18.6	63.0	13.9	0.0	46.4	12.7	1.9
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	28.3	7.8	61.7	62.3	18.6	63.0	13.9	0.0	46.4	12.7	1.9
Queue Length 50th (ft)	118	17	20	27	46	5	91	67	0	44	75	0
Queue Length 95th (ft)	158	38	28	60	90	62	148	108	0	m59	140	m22
Internal Link Dist (ft)		3135			337			398			465	
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	729	601	609	135	348	404	285	2075	978	165	1915	977
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	28	0	0	0	0	1	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	0.51	0.07	0.24	0.26	0.18	0.33	0.42	0.17	0.01	0.36	0.30	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.13: Moreno Beach Dr & Alessandro Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	85	267	46	129	59	512	19	693
v/c Ratio	0.55	0.79	0.40	0.43	0.49	0.43	0.18	0.62
Control Delay	44.3	36.9	64.2	46.6	58.6	14.8	58.1	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	36.9	64.2	46.6	58.6	14.8	58.1	21.8
Queue Length 50th (ft)	63	176	35	85	39	234	14	376
Queue Length 95th (ft)	117	254	75	143	66	445	40	545
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	180	425	116	349	124	1201	105	1113
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	0.63	0.40	0.37	0.48	0.43	0.18	0.62
Intersection Summary								

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	101	335	20	119	24	119	393	28	48	614
v/c Ratio	0.56	0.47	0.18	0.59	0.09	0.60	0.19	0.03	0.25	0.22
Control Delay	62.8	28.9	56.8	62.2	0.6	69.8	19.0	2.3	37.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	28.9	56.8	62.2	0.6	69.8	19.0	2.3	37.5	6.4
Queue Length 50th (ft)	76	77	15	89	0	97	72	0	35	28
Queue Length 95th (ft)	129	117	41	146	0	158	169	0	m55	44
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	300	1080	165	411	442	345	2069	1111	210	2799
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.31	0.12	0.29	0.05	0.34	0.19	0.03	0.23	0.22

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	51	20	312	26	72	14	366	210	132	532
v/c Ratio	0.39	0.17	0.79	0.08	0.19	0.13	0.13	0.16	0.63	0.16
Control Delay	61.8	37.5	58.0	38.5	2.4	56.7	17.7	0.8	59.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	37.5	58.0	38.5	2.4	56.7	17.7	0.8	59.8	5.8
Queue Length 50th (ft)	38	7	230	18	0	11	46	0	81	10
Queue Length 95th (ft)	80	32	304	38	9	33	98	15	148	93
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	150	285	601	775	729	105	2720	1431	300	3239
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.07	0.52	0.03	0.10	0.13	0.13	0.15	0.44	0.16

Intersection Summary

Queues
Int.24: Redlands Blvd & Ironwood Ave



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	153	31	13	722	6	808	194
v/c Ratio	0.70	0.12	0.12	0.50	0.06	0.57	0.16
Control Delay	62.2	35.4	53.5	1.4	54.8	10.4	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	35.4	53.5	1.4	54.8	10.4	3.7
Queue Length 50th (ft)	109	16	10	5	5	194	16
Queue Length 95th (ft)	172	43	m20	12	19	497	58
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	297	349	105	1457	105	1424	1232
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.09	0.12	0.50	0.06	0.57	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.25: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	6	1	43	3	696	100	387	438
v/c Ratio	0.05	0.00	0.20	0.03	0.59	0.08	1.07	0.28
Control Delay	54.7	0.0	2.1	63.3	15.7	3.8	110.0	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	0.0	2.1	63.3	15.7	3.8	110.0	6.3
Queue Length 50th (ft)	5	0	0	2	194	2	~335	34
Queue Length 95th (ft)	19	0	0	m0	507	m26	#520	307
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	292	348	367	105	1183	1183	361	1591
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	0.02	0.00	0.12	0.03	0.59	0.08	1.07	0.28

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
 Int.26: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	562	73	396	433	39
v/c Ratio	0.85	0.52	0.36	0.47	0.03
Control Delay	45.0	65.1	14.7	21.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	65.1	14.7	21.1	0.1
Queue Length 50th (ft)	369	56	132	266	0
Queue Length 95th (ft)	454	106	287	159	0
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	806	150	1095	917	1425
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.70	0.49	0.36	0.47	0.03

Intersection Summary

Queues
Int.27: Redlands Blvd & Eucalyptus Ave



Lane Group	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	36	23	25	14	412	537	44
v/c Ratio	0.29	0.09	0.04	0.13	0.26	0.36	0.03
Control Delay	47.5	8.0	0.1	56.7	3.7	2.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	8.0	0.1	56.7	3.7	2.1	0.1
Queue Length 50th (ft)	28	0	0	11	76	61	0
Queue Length 95th (ft)	62	6	0	33	122	68	m1
Internal Link Dist (ft)	276		225		310	500	
Turn Bay Length (ft)				100			390
Base Capacity (vph)	285	267	694	105	1585	1481	1457
Starvation Cap Reductn	0	0	0	0	0	76	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.09	0.04	0.13	0.26	0.38	0.03

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.31: Redlands Blvd & Cottonwood Ave



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	17	19	19	383	466	35
v/c Ratio	0.10	0.11	0.11	0.22	0.28	0.02
Control Delay	30.4	15.3	30.8	1.5	3.1	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	15.3	30.8	1.5	3.1	1.7
Queue Length 50th (ft)	7	0	8	0	0	0
Queue Length 95th (ft)	23	18	26	51	140	9
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	477	441	175	1739	1678	1430
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.11	0.22	0.28	0.02

Intersection Summary

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	859	146	790	65	165	354	44	368
v/c Ratio	0.51	0.60	0.66	0.46	0.07	0.69	0.31	0.42	0.44
Control Delay	67.8	30.4	86.6	9.0	0.3	64.0	18.1	67.0	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	30.4	86.6	9.0	0.3	64.0	18.1	67.0	24.8
Queue Length 50th (ft)	50	267	116	73	1	123	58	34	70
Queue Length 95th (ft)	98	356	m166	95	m0	190	100	74	124
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	135	1435	285	1702	945	315	1128	105	830
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.60	0.51	0.46	0.07	0.52	0.31	0.42	0.44

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	34	282	167	130	588	21	272	400	184	24	449
v/c Ratio	0.32	0.76	0.41	0.45	0.93	0.03	0.92	0.43	0.16	0.23	0.69
Control Delay	62.8	58.2	15.9	32.4	41.1	0.1	85.9	24.7	1.9	59.5	41.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	58.2	15.9	32.4	41.1	0.1	85.9	24.7	1.9	59.5	41.7
Queue Length 50th (ft)	26	209	32	52	163	0	209	232	0	18	318
Queue Length 95th (ft)	55	249	70	126	374	m0	#314	291	22	43	395
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	105	522	529	292	665	692	300	931	1155	105	650
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	0.32	0.54	0.32	0.45	0.88	0.03	0.91	0.43	0.16	0.23	0.69

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.

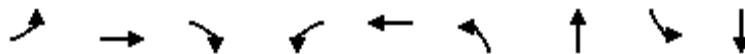
Queues
Int.3: Lasselle St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	935	584	680	387	612	520	131	574
v/c Ratio	0.49	0.68	0.79	0.32	0.66	0.52	0.54	0.57	0.71
Control Delay	44.3	21.3	34.2	11.4	53.1	34.8	15.3	64.8	47.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	21.3	34.2	11.4	53.1	34.8	15.3	64.8	47.4
Queue Length 50th (ft)	45	220	158	57	146	202	194	51	211
Queue Length 95th (ft)	76	248	224	82	200	260	281	85	276
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	233	1378	817	2095	583	1178	991	233	805
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.68	0.71	0.32	0.66	0.52	0.52	0.56	0.71

Intersection Summary

Queues
Int.4: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	272	266	257	182	220	107	1003	20	1535
v/c Ratio	0.92	0.55	0.76	0.69	0.51	0.85	0.49	0.19	0.83
Control Delay	85.9	51.9	37.9	46.1	32.0	103.1	16.7	58.3	30.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.9	51.9	37.9	46.1	32.0	103.1	16.7	58.3	30.5
Queue Length 50th (ft)	209	102	91	75	43	83	196	15	510
Queue Length 95th (ft)	#273	114	125	185	54	#143	266	35	496
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	300	679	414	264	558	126	2056	105	1841
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.39	0.62	0.69	0.39	0.85	0.49	0.19	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Int.5: Nason St & Alessandro Blvd

Moreno Valley Trade Center
03/30/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	237	94	135	432	176	92	552	38	73	864	105
v/c Ratio	0.39	0.59	0.36	0.16	0.80	0.30	0.53	0.34	0.05	0.49	0.40	0.14
Control Delay	40.3	30.7	5.2	20.6	33.5	1.4	62.4	24.6	0.1	63.4	26.6	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	30.7	5.2	20.6	33.5	1.4	62.4	24.6	0.1	63.4	26.6	4.4
Queue Length 50th (ft)	21	62	4	23	257	0	69	149	0	55	171	0
Queue Length 95th (ft)	47	89	12	43	274	1	114	211	0	96	224	26
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	237	1323	651	830	744	739	210	1634	795	180	2183	748
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	0.38	0.18	0.14	0.16	0.58	0.24	0.44	0.34	0.05	0.41	0.40	0.14

Intersection Summary

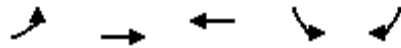


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	353	978	18	688	147	13	54	172	21	328
v/c Ratio	0.48	0.40	0.16	0.48	0.27	0.12	0.17	0.44	0.03	0.31
Control Delay	37.8	15.6	80.7	16.4	1.7	56.5	40.4	44.9	26.2	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	15.6	80.7	16.4	1.7	56.5	40.4	44.9	26.2	4.5
Queue Length 50th (ft)	122	93	14	75	1	10	32	116	9	37
Queue Length 95th (ft)	165	201	m34	93	3	29	66	175	28	64
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	729	2468	135	1426	550	105	314	391	721	1057
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.40	0.13	0.48	0.27	0.12	0.17	0.44	0.03	0.31

Intersection Summary

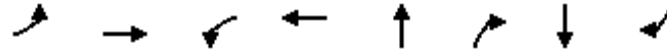
m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.7: Eucalyptus Ave & Fir Ave



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	72	352	350	151	56
v/c Ratio	0.22	0.16	0.25	0.25	0.10
Control Delay	22.4	4.2	17.9	29.7	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	4.2	17.9	29.7	7.5
Queue Length 50th (ft)	25	41	110	84	0
Queue Length 95th (ft)	43	23	66	122	23
Internal Link Dist (ft)		1543	3135	387	
Turn Bay Length (ft)	200			250	400
Base Capacity (vph)	391	2135	1393	616	588
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.18	0.16	0.25	0.25	0.10

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	261	618	34	481	124	33	54	222
v/c Ratio	0.51	0.26	0.29	0.45	0.37	0.08	0.15	0.45
Control Delay	25.6	8.8	59.4	42.6	46.5	0.4	41.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	8.8	59.4	42.6	46.5	0.4	41.8	8.6
Queue Length 50th (ft)	183	41	26	119	85	0	35	0
Queue Length 95th (ft)	265	47	59	153	143	0	72	64
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250			50		480
Base Capacity (vph)	511	2386	135	1078	339	392	358	488
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	0.51	0.26	0.25	0.45	0.37	0.08	0.15	0.45

Intersection Summary

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	97	5	241	446	93	259
v/c Ratio	0.54	0.01	0.20	0.33	0.31	0.16
Control Delay	61.4	16.0	8.8	0.9	47.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	16.0	8.8	0.9	47.2	2.5
Queue Length 50th (ft)	73	0	80	0	64	29
Queue Length 95th (ft)	119	9	148	0	112	58
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	631	488	1202	1342	300	1582
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.01	0.20	0.33	0.31	0.16

Intersection Summary

Queues
 Int.10: Moreno Beach Dr & SR-60 EB Ramps

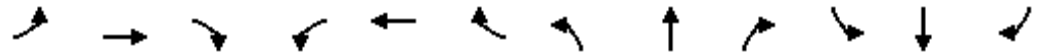


Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	55	618	667	146	373
v/c Ratio	0.27	0.85	0.65	0.16	0.81
Control Delay	48.7	15.2	10.7	0.4	52.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	15.2	10.7	0.4	52.0
Queue Length 50th (ft)	41	0	100	0	286
Queue Length 95th (ft)	65	52	88	0	362
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	392	834	1034	938	458
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.14	0.74	0.65	0.16	0.81

Intersection Summary

Queues
Int.11: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
03/30/2020



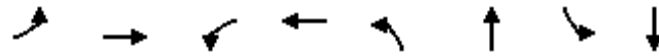
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	227	100	95	27	45	93	113	493	34	313	480	182
v/c Ratio	0.60	0.33	0.27	0.26	0.33	0.42	0.59	0.37	0.05	0.55	0.23	0.18
Control Delay	41.3	33.5	8.1	60.4	59.8	11.5	63.0	29.4	0.1	28.8	12.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	33.5	8.1	60.4	59.8	11.5	63.0	29.4	0.1	28.8	12.3	3.3
Queue Length 50th (ft)	76	65	8	21	35	1	85	144	0	122	56	0
Queue Length 95th (ft)	101	101	24	49	68	19	128	189	0	m194	120	m23
Internal Link Dist (ft)		3135			345			398				465
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	446	443	467	105	316	367	257	1335	671	571	2094	1013
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	0.51	0.23	0.20	0.26	0.14	0.25	0.44	0.37	0.05	0.55	0.23	0.18

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.13: Moreno Beach Dr & Alessandro Blvd

Moreno Valley Trade Center
03/30/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	71	230	52	295	126	615	11	503
v/c Ratio	0.52	0.72	0.28	0.80	0.65	0.52	0.10	0.53
Control Delay	51.6	17.4	52.9	61.4	51.5	24.6	55.9	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	17.4	52.9	61.4	51.5	24.6	55.9	25.0
Queue Length 50th (ft)	26	43	37	217	96	449	8	270
Queue Length 95th (ft)	79	67	78	302	125	556	28	425
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	150	451	196	464	227	1180	105	945
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	0.51	0.27	0.64	0.56	0.52	0.10	0.53
Intersection Summary								

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	85	206	35	179	36	137	700	64	21	521
v/c Ratio	0.52	0.54	0.13	0.68	0.08	0.63	0.33	0.05	0.13	0.19
Control Delay	62.1	31.0	42.7	62.0	0.4	72.9	14.1	0.5	52.2	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	31.0	42.7	62.0	0.4	72.9	14.1	0.5	52.2	18.0
Queue Length 50th (ft)	64	40	24	134	0	110	122	0	10	47
Queue Length 95th (ft)	105	68	48	185	0	164	166	3	m24	120
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	270	1074	271	443	457	376	2099	1228	180	2713
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.19	0.13	0.40	0.08	0.36	0.33	0.05	0.12	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	106	45	278	67	346	12	460	288	184	508
v/c Ratio	0.57	0.33	0.76	0.23	0.64	0.11	0.19	0.24	0.70	0.17
Control Delay	62.7	57.3	58.1	43.9	10.1	55.7	21.9	1.2	52.8	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	57.3	58.1	43.9	10.1	55.7	21.9	1.2	52.8	7.0
Queue Length 50th (ft)	79	32	206	46	0	9	76	0	112	24
Queue Length 95th (ft)	119	62	245	74	45	26	115	13	116	37
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	285	300	511	538	705	107	2413	1298	376	3056
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.15	0.54	0.12	0.49	0.11	0.19	0.22	0.49	0.17

Intersection Summary

Queues
Int.24: Redlands Blvd & Ironwood Ave



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	134	19	31	503	4	840	132
v/c Ratio	0.69	0.08	0.30	0.34	0.04	0.59	0.11
Control Delay	64.8	34.1	55.3	0.9	54.3	10.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	34.1	55.3	0.9	54.3	10.6	3.5
Queue Length 50th (ft)	94	9	25	7	3	301	15
Queue Length 95th (ft)	143	29	m55	13	14	426	35
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	259	303	105	1490	105	1423	1225
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.06	0.30	0.34	0.04	0.59	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.25: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	3	4	121	6	476	219	419	428
v/c Ratio	0.03	0.02	0.53	0.06	0.47	0.20	0.83	0.27
Control Delay	54.0	0.3	18.5	43.4	14.1	0.6	43.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	0.3	18.5	43.4	14.1	0.6	43.3	3.3
Queue Length 50th (ft)	2	0	2	5	139	0	289	21
Queue Length 95th (ft)	12	0	51	m8	221	3	336	179
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	283	348	371	120	1011	1214	522	1568
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	0.01	0.01	0.33	0.05	0.47	0.18	0.80	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.26: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	342	99	581	504	43
v/c Ratio	0.82	0.44	0.43	0.48	0.03
Control Delay	53.3	55.2	7.5	11.5	0.5
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	53.3	55.2	7.6	11.5	0.5
Queue Length 50th (ft)	220	73	119	99	0
Queue Length 95th (ft)	300	115	133	122	3
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	579	225	1353	1052	1308
Starvation Cap Reductn	0	0	208	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44	0.51	0.48	0.03

Intersection Summary

Queues
Int.27: Redlands Blvd & Eucalyptus Ave

Moreno Valley Trade Center
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Lane Group	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	100	127	43	48	574	537	152
v/c Ratio	0.56	0.30	0.32	0.40	0.40	0.43	0.12
Control Delay	74.4	19.4	39.8	64.1	7.3	4.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	74.4	19.4	39.8	64.1	7.3	5.1	0.5
Queue Length 50th (ft)	79	19	17	36	142	91	2
Queue Length 95th (ft)	118	56	46	67	211	115	4
Internal Link Dist (ft)	280		225		339	500	
Turn Bay Length (ft)				100			390
Base Capacity (vph)	302	423	294	120	1429	1241	1330
Starvation Cap Reductn	0	0	0	0	0	134	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.30	0.15	0.40	0.40	0.49	0.11
Intersection Summary							

Queues
 Int.31: Redlands Blvd & Cottonwood Ave



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	35	49	26	551	414	33
v/c Ratio	0.26	0.29	0.20	0.33	0.26	0.02
Control Delay	48.8	17.1	47.8	2.2	3.9	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	17.1	47.8	2.2	3.9	1.6
Queue Length 50th (ft)	24	0	18	50	34	0
Queue Length 95th (ft)	48	30	39	81	120	7
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	348	350	226	1666	1572	1342
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.14	0.12	0.33	0.26	0.02

Intersection Summary

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	926	148	721	71	57	223	53	258
v/c Ratio	0.59	0.57	0.57	0.40	0.07	0.42	0.29	0.39	0.33
Control Delay	64.0	25.7	49.8	4.2	0.1	61.9	22.4	60.7	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	25.7	49.8	4.2	0.1	61.9	22.4	60.7	26.4
Queue Length 50th (ft)	82	273	122	34	0	43	39	40	53
Queue Length 95th (ft)	139	351	m189	40	m0	86	78	81	97
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	240	1631	315	1808	968	165	775	165	780
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.57	0.47	0.40	0.07	0.35	0.29	0.32	0.33

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	455	224	109	315	23	177	402	120	15	429
v/c Ratio	0.26	0.86	0.42	0.66	0.68	0.04	0.77	0.45	0.12	0.14	0.62
Control Delay	47.1	57.2	17.7	74.7	37.1	0.8	71.9	25.8	3.6	56.9	37.8
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	47.1	57.2	17.7	74.7	37.1	0.8	71.9	25.8	3.6	56.9	37.8
Queue Length 50th (ft)	46	327	62	88	255	1	132	230	4	11	287
Queue Length 95th (ft)	95	443	129	#152	343	m1	#224	337	33	34	418
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	270	601	592	182	633	571	255	901	1005	105	693
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	0.26	0.76	0.38	0.60	0.50	0.04	0.69	0.45	0.12	0.14	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

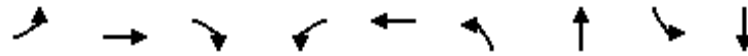
m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Lasselle St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	149	785	690	790	236	585	450	195	808
v/c Ratio	0.57	0.64	0.83	0.39	0.67	0.53	0.46	0.61	0.76
Control Delay	41.6	17.4	34.2	14.5	62.4	36.8	13.2	60.5	43.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	17.4	34.2	14.5	62.4	36.8	13.2	60.5	43.1
Queue Length 50th (ft)	59	173	129	75	92	199	151	75	295
Queue Length 95th (ft)	94	200	161	94	136	258	226	114	370
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	262	1224	904	2020	350	1105	998	350	1067
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.64	0.76	0.39	0.67	0.53	0.45	0.56	0.76
Intersection Summary									

Queues
Int.4: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	186	55	169	206	48	1020	23	887
v/c Ratio	0.39	0.54	0.21	0.68	0.30	0.41	0.48	0.20	0.42
Control Delay	65.7	57.2	1.8	37.9	18.9	64.7	15.5	57.3	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.7	57.2	1.8	37.9	18.9	64.7	15.5	57.3	15.8
Queue Length 50th (ft)	31	73	0	54	23	36	226	17	195
Queue Length 95th (ft)	70	109	0	155	32	77	350	44	291
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	105	601	367	331	1048	120	2136	114	2093
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.31	0.15	0.51	0.20	0.40	0.48	0.20	0.42

Intersection Summary

Queues
Int.5: Nason St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	107	342	67	36	250	59	69	710	91	64	713	74
v/c Ratio	0.40	0.41	0.15	0.17	0.74	0.15	0.37	0.36	0.10	0.44	0.26	0.08
Control Delay	47.4	34.7	3.0	64.0	46.0	2.0	54.9	18.0	2.0	61.1	17.9	1.1
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	47.4	34.7	3.0	64.0	46.0	2.0	54.9	18.0	2.0	61.1	17.9	1.1
Queue Length 50th (ft)	29	78	3	12	111	0	50	160	0	48	113	0
Queue Length 95th (ft)	m45	m85	m5	m27	203	m2	97	260	19	92	168	9
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	324	1083	567	262	538	542	210	1986	941	196	2733	907
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	0.33	0.32	0.12	0.14	0.46	0.11	0.33	0.36	0.10	0.33	0.26	0.08

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

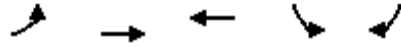


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	240	657	21	836	163	17	41	120	56	429
v/c Ratio	0.36	0.27	0.19	0.55	0.28	0.16	0.10	0.42	0.08	0.42
Control Delay	32.2	11.6	60.8	16.8	1.8	57.2	31.2	50.7	29.2	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	11.6	60.8	16.8	1.8	57.2	31.2	50.7	29.2	8.3
Queue Length 50th (ft)	86	53	17	203	0	13	16	85	24	92
Queue Length 95th (ft)	110	75	m46	233	0	37	52	146	68	152
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	904	2455	135	1512	586	106	417	285	721	1016
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.27	0.16	0.55	0.28	0.16	0.10	0.42	0.08	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.7: Eucalyptus Ave & Fir Ave

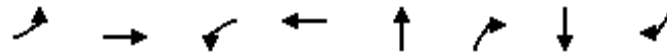


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	35	394	563	168	41
v/c Ratio	0.19	0.18	0.32	0.28	0.07
Control Delay	31.6	3.6	21.0	31.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	3.6	21.0	31.0	8.5
Queue Length 50th (ft)	16	30	178	95	0
Queue Length 95th (ft)	m35	17	152	154	26
Internal Link Dist (ft)		1543	3135	387	
Turn Bay Length (ft)	200			250	400
Base Capacity (vph)	240	2166	1761	601	565
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.18	0.32	0.28	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.8: Oliver St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	55	653	55	721	57	36	14	49
v/c Ratio	0.22	0.30	0.40	0.38	0.16	0.09	0.04	0.12
Control Delay	29.4	10.4	60.3	30.3	41.1	0.4	40.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	10.4	60.3	30.3	41.1	0.4	40.8	0.6
Queue Length 50th (ft)	37	58	41	159	37	0	9	0
Queue Length 95th (ft)	75	66	83	198	75	0	28	0
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250					
Base Capacity (vph)	285	2182	240	1884	364	417	348	392
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	0.19	0.30	0.23	0.38	0.16	0.09	0.04	0.13
Intersection Summary								

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	99	9	282	637	39	272
v/c Ratio	0.52	0.03	0.19	0.42	0.37	0.17
Control Delay	59.9	19.0	4.3	0.8	64.8	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.9	19.0	4.3	0.8	64.8	2.6
Queue Length 50th (ft)	74	0	66	38	30	33
Queue Length 95th (ft)	126	14	m108	0	67	65
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	812	324	1469	1528	105	1573
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.03	0.19	0.42	0.37	0.17

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.10: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	68	692	805	171	352
v/c Ratio	0.32	0.86	0.75	0.18	0.86
Control Delay	50.2	15.7	14.6	0.4	61.3
Queue Delay	0.0	0.0	0.9	0.0	0.0
Total Delay	50.2	15.7	15.5	0.4	61.3
Queue Length 50th (ft)	50	0	117	0	275
Queue Length 95th (ft)	87	130	#594	1	#431
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	347	868	1075	974	411
Starvation Cap Reductn	0	0	90	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.20	0.80	0.82	0.18	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
Int.11: Moreno Beach Dr & Eucalyptus Ave

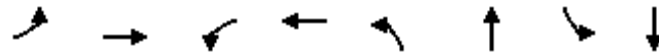
Moreno Valley Trade Center
03/30/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	360	70	144	51	87	309	121	350	22	239	584	256
v/c Ratio	0.70	0.19	0.34	0.39	0.48	0.71	0.60	0.25	0.03	0.55	0.32	0.27
Control Delay	43.5	29.3	7.9	70.7	63.7	19.7	63.0	27.5	0.1	33.4	15.4	2.5
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	29.3	7.9	70.7	63.7	19.7	63.0	27.5	0.1	33.4	15.4	2.5
Queue Length 50th (ft)	120	28	20	38	62	9	91	95	0	107	85	0
Queue Length 95th (ft)	177	64	27	m78	m111	88	148	153	0	m151	m164	m21
Internal Link Dist (ft)		3135			328			398			465	
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	642	617	622	150	427	602	259	1380	690	436	1852	953
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	29	0	0	0	0	2	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	0.59	0.11	0.23	0.34	0.20	0.52	0.47	0.25	0.03	0.55	0.32	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	85	317	83	177	59	551	19	693
v/c Ratio	0.36	0.84	0.60	0.63	0.51	0.49	0.18	0.66
Control Delay	27.1	39.7	71.6	56.9	77.5	10.5	58.1	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	39.7	71.6	56.9	77.5	10.5	58.1	24.9
Queue Length 50th (ft)	41	162	63	128	32	261	14	414
Queue Length 95th (ft)	100	291	117	194	#104	540	40	574
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	250	436	150	408	115	1128	105	1056
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	0.34	0.73	0.55	0.43	0.51	0.49	0.18	0.66

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	101	335	20	119	24	119	432	28	48	651
v/c Ratio	0.56	0.47	0.18	0.59	0.05	0.60	0.22	0.03	0.18	0.23
Control Delay	62.8	28.9	56.8	62.2	0.2	68.9	27.8	4.1	32.3	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	28.9	56.8	62.2	0.2	68.9	27.8	4.1	32.3	6.1
Queue Length 50th (ft)	76	77	15	89	0	97	88	0	32	10
Queue Length 95th (ft)	129	117	41	146	0	158	228	12	m50	92
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	300	1080	165	411	552	345	1924	1049	300	2800
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.31	0.12	0.29	0.04	0.34	0.22	0.03	0.16	0.23

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	51	20	334	26	72	14	407	233	132	570
v/c Ratio	0.39	0.17	0.80	0.07	0.18	0.13	0.15	0.18	0.63	0.18
Control Delay	61.8	37.5	57.2	37.1	2.2	56.7	18.7	1.1	53.3	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	37.5	57.2	37.1	2.2	56.7	18.7	1.1	53.3	6.9
Queue Length 50th (ft)	38	7	245	18	0	11	53	0	88	8
Queue Length 95th (ft)	80	32	321	37	8	33	111	25	149	126
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	150	285	616	791	741	105	2655	1447	300	3181
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.07	0.54	0.03	0.10	0.13	0.15	0.16	0.44	0.18

Intersection Summary

Queues
Int.24: Redlands Blvd & Ironwood Ave



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	153	31	13	763	6	853	194
v/c Ratio	0.71	0.12	0.12	0.52	0.06	0.60	0.16
Control Delay	63.6	35.8	54.9	1.5	54.8	10.8	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	35.8	54.9	1.5	54.8	10.8	3.7
Queue Length 50th (ft)	109	16	10	5	5	212	16
Queue Length 95th (ft)	174	43	m18	10	19	532	58
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	285	335	105	1462	105	1429	1236
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.09	0.12	0.52	0.06	0.60	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.25: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	6	1	90	3	737	184	387	482
v/c Ratio	0.05	0.00	0.41	0.03	0.63	0.15	1.07	0.30
Control Delay	54.7	0.0	10.2	58.3	21.5	4.6	109.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	0.0	10.2	58.3	21.5	4.6	109.8	6.7
Queue Length 50th (ft)	5	0	0	2	351	29	~336	39
Queue Length 95th (ft)	19	0	30	m0	585	m52	#522	357
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	292	348	373	105	1179	1206	361	1587
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	0.02	0.00	0.24	0.03	0.63	0.15	1.07	0.30

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
 Int.26: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	641	120	522	525	39
v/c Ratio	0.90	0.73	0.51	0.66	0.03
Control Delay	48.4	79.9	22.7	29.7	0.1
Queue Delay	0.0	0.0	0.3	0.0	0.0
Total Delay	48.4	79.9	23.1	29.7	0.1
Queue Length 50th (ft)	419	94	306	370	1
Queue Length 95th (ft)	570	#186	426	202	0
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	785	165	1031	794	1362
Starvation Cap Reductn	0	0	147	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.82	0.73	0.59	0.66	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues
Int.27: Redlands Blvd & Eucalyptus Ave



Lane Group	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	133	163	54	145	516	643	111
v/c Ratio	0.63	0.31	0.38	0.65	0.37	0.59	0.09
Control Delay	65.5	14.7	40.3	62.9	7.9	7.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	65.5	14.7	40.3	62.9	7.9	8.0	0.3
Queue Length 50th (ft)	105	32	22	109	134	124	0
Queue Length 95th (ft)	168	62	62	170	242	235	m0
Internal Link Dist (ft)	276		225		310	500	
Turn Bay Length (ft)				100			390
Base Capacity (vph)	279	540	284	248	1387	1095	1260
Starvation Cap Reductn	0	0	0	0	0	56	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.30	0.19	0.58	0.37	0.62	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.31: Redlands Blvd & Cottonwood Ave



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	17	19	19	519	593	35
v/c Ratio	0.10	0.11	0.11	0.30	0.35	0.02
Control Delay	30.8	15.3	31.1	1.7	3.5	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	15.3	31.1	1.7	3.5	1.7
Queue Length 50th (ft)	7	0	8	0	0	0
Queue Length 95th (ft)	24	18	26	74	193	9
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	461	427	174	1740	1679	1431
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.11	0.30	0.35	0.02

Intersection Summary

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	1056	190	1013	98	201	504	71	455
v/c Ratio	0.56	0.73	0.77	0.62	0.11	0.78	0.52	0.47	0.61
Control Delay	66.7	34.0	84.6	11.6	1.0	69.2	24.1	63.5	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	34.0	84.6	11.6	1.0	69.2	24.1	63.5	31.0
Queue Length 50th (ft)	65	362	151	99	0	150	100	53	103
Queue Length 95th (ft)	119	453	m202	m142	m4	231	155	103	163
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	180	1441	285	1646	916	300	968	150	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.73	0.67	0.62	0.11	0.67	0.52	0.47	0.61

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	54	505	204	170	920	39	320	471	223	65	571
v/c Ratio	0.51	0.86	0.35	0.84	1.26	0.05	1.19	0.61	0.24	0.62	1.04
Control Delay	72.4	53.9	14.7	64.2	159.3	0.6	158.7	34.4	4.2	80.3	91.6
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	72.4	53.9	14.7	64.2	159.3	0.6	158.7	34.4	4.2	80.3	91.6
Queue Length 50th (ft)	41	358	47	116	-921	0	-298	305	19	50	-502
Queue Length 95th (ft)	77	435	91	m#161	#1016	m1	#417	374	42	#97	#623
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	105	617	604	210	728	810	270	766	925	105	548
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	0.51	0.82	0.34	0.81	1.26	0.05	1.19	0.61	0.24	0.62	1.04

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	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	138	1226	722	952	506	712	752	176	680
v/c Ratio	0.53	0.88	0.85	0.43	0.91	0.71	0.87	0.63	0.95
Control Delay	46.5	35.8	47.6	8.7	71.9	43.7	28.7	63.8	69.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	35.8	47.6	8.7	71.9	43.7	28.7	63.8	69.5
Queue Length 50th (ft)	52	157	298	58	201	262	310	69	268
Queue Length 95th (ft)	m78	301	#379	69	#300	332	#532	107	#389
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	262	1389	846	2220	554	1003	861	291	717
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.88	0.85	0.43	0.91	0.71	0.87	0.60	0.95

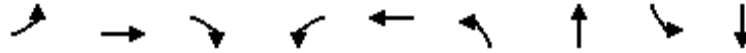
Intersection Summary

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.

Queues
Int.4: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	326	284	309	224	261	138	1245	22	1858
v/c Ratio	1.09	0.50	0.86	0.84	0.52	1.04	0.65	0.21	1.07
Control Delay	124.0	48.8	50.1	70.5	42.8	142.6	22.4	58.9	71.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	124.0	48.8	50.1	70.5	42.8	142.6	22.4	58.9	71.9
Queue Length 50th (ft)	~283	104	137	168	90	~138	379	17	~835
Queue Length 95th (ft)	#357	122	177	#244	114	#213	353	37	660
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	300	676	407	268	555	133	1906	105	1744
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.42	0.76	0.84	0.47	1.04	0.65	0.21	1.07

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.

Queues
Int.5: Nason St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	113	313	277	439	606	312	156	694	127	120	1221	121
v/c Ratio	0.54	0.35	0.48	0.77	0.91	0.42	0.74	0.55	0.20	0.61	0.69	0.19
Control Delay	65.4	43.9	15.5	47.4	50.5	5.2	71.1	34.7	5.8	63.9	37.7	6.1
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	65.4	43.9	15.5	47.4	50.5	5.2	71.1	34.7	5.8	63.9	37.7	6.1
Queue Length 50th (ft)	38	84	34	155	452	17	117	238	0	89	312	0
Queue Length 95th (ft)	m55	m118	m83	m163	m469	m20	176	277	36	141	336	36
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	211	904	581	642	697	762	240	1253	643	225	1757	627
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	0.54	0.35	0.48	0.68	0.87	0.41	0.65	0.55	0.20	0.53	0.69	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

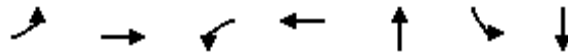


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	512	1293	31	1005	255	14	67	301	32	409
v/c Ratio	0.77	0.59	0.30	0.76	0.45	0.13	0.21	0.67	0.04	0.38
Control Delay	52.8	26.2	53.5	15.9	2.3	56.7	38.9	48.9	24.3	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	26.2	53.5	15.9	2.3	56.7	38.9	48.9	24.3	6.3
Queue Length 50th (ft)	205	290	25	84	3	11	38	211	14	69
Queue Length 95th (ft)	m236	325	m38	97	4	31	77	288	37	105
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	729	2182	105	1318	564	105	326	451	797	1072
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.59	0.30	0.76	0.45	0.13	0.21	0.67	0.04	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

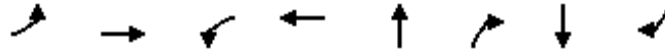
Queues
Int.7: Eucalyptus Ave & Fir Ave



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	80	419	7	501	54	196	73
v/c Ratio	0.49	0.22	0.06	0.31	0.08	0.36	0.11
Control Delay	59.4	20.3	50.0	10.2	19.9	28.8	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	20.3	50.0	10.2	19.9	28.8	8.0
Queue Length 50th (ft)	67	110	6	93	21	107	5
Queue Length 95th (ft)	m106	150	m16	121	48	151	36
Internal Link Dist (ft)		1543		3135	84		387
Turn Bay Length (ft)	200					250	
Base Capacity (vph)	315	1905	135	1600	692	548	674
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.22	0.05	0.31	0.08	0.36	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	347	868	39	902	180	40	78	270
v/c Ratio	0.66	0.33	0.37	0.75	0.59	0.11	0.24	0.53
Control Delay	23.2	3.5	64.8	47.0	54.8	0.6	44.9	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	3.5	64.8	47.0	54.8	0.6	44.9	9.3
Queue Length 50th (ft)	250	49	30	237	130	0	53	0
Queue Length 95th (ft)	350	54	66	284	205	0	99	71
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250			50		480
Base Capacity (vph)	526	2596	105	1206	307	367	326	505
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	0.66	0.33	0.37	0.75	0.59	0.11	0.24	0.53

Intersection Summary

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	243	8	532	568	133	354
v/c Ratio	0.73	0.01	0.49	0.42	0.52	0.25
Control Delay	57.9	11.1	1.4	0.1	55.8	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	11.1	1.4	0.1	55.8	5.9
Queue Length 50th (ft)	178	0	12	0	97	74
Queue Length 95th (ft)	237	9	m88	m0	157	135
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	601	587	1088	1345	255	1420
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.01	0.49	0.42	0.52	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.10: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	309	652	854	308	648
v/c Ratio	1.08	0.81	1.08	0.39	1.06
Control Delay	122.8	12.6	86.0	6.7	98.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	122.8	12.6	86.0	6.7	98.0
Queue Length 50th (ft)	~267	0	~746	38	~559
Queue Length 95th (ft)	#394	56	#865	54	#691
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	287	804	791	791	613
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.08	0.81	1.08	0.39	1.06

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.

Queues
Int.11: Moreno Beach Dr & Eucalyptus Ave

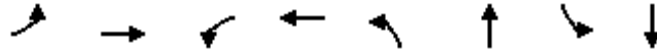
Moreno Valley Trade Center
03/30/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	263	102	139	45	48	71	187	834	77	220	775	212
v/c Ratio	0.69	0.46	0.44	0.39	0.35	0.27	0.57	0.43	0.08	0.74	0.41	0.23
Control Delay	44.6	45.2	10.8	64.3	59.3	2.6	52.2	19.4	1.2	42.9	12.4	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	44.6	45.2	10.8	64.3	59.3	2.6	52.2	19.5	1.2	42.9	12.4	1.4
Queue Length 50th (ft)	67	81	19	34	36	0	133	206	0	140	195	14
Queue Length 95th (ft)	81	127	55	67	68	0	191	273	5	m148	m198	m21
Internal Link Dist (ft)		3135			340			398				465
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	408	387	440	120	292	380	330	1947	925	345	1878	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	14	0	352	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.26	0.32	0.38	0.16	0.19	0.57	0.52	0.08	0.64	0.41	0.23

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	293	70	394	207	843	22	847
v/c Ratio	0.87	0.68	0.44	1.04	1.25	0.82	0.21	0.97
Control Delay	93.3	52.0	62.0	103.1	188.5	18.4	58.9	54.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.3	52.0	62.0	103.1	188.5	18.4	58.9	54.7
Queue Length 50th (ft)	101	217	51	~328	~206	643	17	611
Queue Length 95th (ft)	#239	314	#126	#528	#364	#849	45	#898
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	180	485	158	379	165	1026	105	873
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	0.87	0.60	0.44	1.04	1.25	0.82	0.21	0.97

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.

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	99	294	79	268	115	223	910	102	56	725
v/c Ratio	0.56	0.38	0.51	0.77	0.21	0.58	0.49	0.10	0.43	0.38
Control Delay	62.7	21.3	63.3	60.4	5.7	36.0	12.5	0.6	59.1	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	21.3	63.3	60.4	5.7	36.0	12.5	0.6	59.1	17.3
Queue Length 50th (ft)	74	52	59	199	0	157	95	0	46	84
Queue Length 95th (ft)	118	74	102	252	32	220	141	3	m55	m145
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	229	1024	195	490	537	406	1841	1037	150	1885
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.29	0.41	0.55	0.21	0.55	0.49	0.10	0.37	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	121	67	456	101	394	30	709	415	209	797
v/c Ratio	0.64	0.44	0.84	0.21	0.56	0.27	0.39	0.34	0.77	0.33
Control Delay	66.9	57.6	52.8	32.8	5.9	60.2	33.3	1.3	61.4	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	57.6	52.8	32.8	5.9	60.2	33.3	1.3	61.4	11.9
Queue Length 50th (ft)	91	47	329	60	0	23	156	0	114	121
Queue Length 95th (ft)	136	82	352	83	36	49	205	12	141	130
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	225	291	619	688	836	110	1829	1258	317	2437
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.23	0.74	0.15	0.47	0.27	0.39	0.33	0.66	0.33

Intersection Summary

Queues
Int.24: Redlands Blvd & Ironwood Ave



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	218	48	60	591	15	907	158
v/c Ratio	0.80	0.17	0.57	0.43	0.14	0.69	0.14
Control Delay	65.1	32.2	60.7	1.1	56.8	16.3	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	32.2	60.7	1.1	56.8	16.3	5.1
Queue Length 50th (ft)	149	22	50	2	11	413	24
Queue Length 95th (ft)	211	51	m58	6	32	546	49
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	329	346	105	1372	105	1312	1135
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.14	0.57	0.43	0.14	0.69	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.25: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	17	11	261	18	545	253	499	477
v/c Ratio	0.15	0.05	0.73	0.17	0.85	0.26	0.87	0.39
Control Delay	56.3	0.4	51.2	51.7	43.3	1.1	45.1	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	0.4	51.2	51.7	43.3	1.1	45.1	5.7
Queue Length 50th (ft)	13	0	164	13	397	0	344	111
Queue Length 95th (ft)	35	0	228	m20	#579	m31	#567	177
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	283	348	366	105	639	994	571	1230
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	0.06	0.03	0.71	0.17	0.85	0.25	0.87	0.39

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.

Queues

Int.26: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	542	158	654	569	74
v/c Ratio	0.89	0.70	0.57	0.66	0.06
Control Delay	50.1	67.8	17.6	23.6	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	67.8	17.6	23.6	1.0
Queue Length 50th (ft)	341	119	295	210	0
Queue Length 95th (ft)	468	170	368	293	m9
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	690	225	1157	856	1319
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.70	0.57	0.66	0.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	38	58	44	577	473	37
v/c Ratio	0.26	0.31	0.34	0.35	0.31	0.03
Control Delay	44.9	15.8	49.3	2.4	4.8	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	15.8	49.3	2.4	4.8	1.5
Queue Length 50th (ft)	21	0	25	54	89	0
Queue Length 95th (ft)	49	31	56	88	133	7
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	468	461	131	1646	1512	1292
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.13	0.34	0.35	0.31	0.03
Intersection Summary						

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	1194	210	899	115	87	284	95	355
v/c Ratio	0.70	0.75	0.64	0.49	0.12	0.58	0.45	0.63	0.58
Control Delay	66.4	31.3	35.7	7.9	1.2	68.4	26.5	72.0	38.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	31.3	35.7	7.9	1.2	68.4	26.5	72.0	38.5
Queue Length 50th (ft)	117	398	163	135	6	65	55	72	98
Queue Length 95th (ft)	186	486	m209	m152	m13	120	98	130	150
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	270	1582	330	1818	1008	165	632	165	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.75	0.64	0.49	0.11	0.53	0.45	0.58	0.58

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.2: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	745	273	137	590	58	215	479	164	38	530
v/c Ratio	0.49	1.02	0.40	1.01	0.90	0.08	1.02	0.68	0.21	0.36	0.97
Control Delay	61.3	76.5	16.6	132.5	28.1	0.2	120.7	38.9	6.3	64.4	73.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	76.5	16.6	132.5	28.1	0.2	120.7	38.9	6.3	64.4	73.2
Queue Length 50th (ft)	74	-614	82	-109	246	0	-177	320	21	29	402
Queue Length 95th (ft)	#162	#851	155	m#204	325	m1	#333	447	54	66	#627
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	200	728	691	135	728	754	210	700	784	105	548
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	1.02	0.40	1.01	0.81	0.08	1.02	0.68	0.21	0.36	0.97

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	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	190	1032	925	1069	303	677	583	266	948
v/c Ratio	0.62	0.89dr	0.96	0.50	0.94	0.70	0.61	0.76	0.96
Control Delay	81.0	42.4	56.5	19.1	92.2	44.4	17.2	67.3	63.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	42.4	56.5	19.1	92.2	44.4	17.2	67.3	63.8
Queue Length 50th (ft)	76	150	381	168	122	250	240	105	378
Queue Length 95th (ft)	m104	210	#504	138	#210	317	355	#163	#516
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	321	1196	963	2117	321	962	963	350	984
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.86	0.96	0.50	0.94	0.70	0.61	0.76	0.96

Intersection Summary

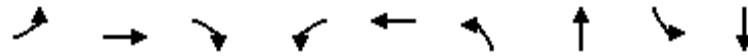
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Queues
Int.4: Nason St & Eucalyptus Ave

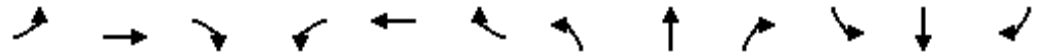


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	59	202	85	227	220	91	1312	25	1095
v/c Ratio	0.45	0.56	0.32	0.80	0.30	0.70	0.63	0.24	0.57
Control Delay	63.7	57.2	6.6	44.7	22.5	81.6	19.3	59.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	57.2	6.6	44.7	22.5	81.6	19.3	59.8	20.6
Queue Length 50th (ft)	44	80	0	123	75	70	368	19	293
Queue Length 95th (ft)	89	116	23	#189	103	#147	483	49	387
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	150	559	350	315	887	135	2072	105	1916
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.36	0.24	0.72	0.25	0.67	0.63	0.24	0.57

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Int.5: Nason St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	486	147	159	351	164	258	1074	399	199	909	99
v/c Ratio	0.65	0.68	0.35	0.58	0.87	0.35	0.64	0.67	0.44	0.75	0.48	0.15
Control Delay	37.9	22.0	4.4	58.6	63.8	10.5	50.2	30.2	6.7	66.6	30.8	3.7
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	37.9	22.0	4.4	58.6	63.8	10.5	50.2	30.2	6.7	66.6	30.8	3.7
Queue Length 50th (ft)	52	135	23	63	265	15	182	354	32	149	201	0
Queue Length 95th (ft)	m58	m145	m27	m76	m308	m29	275	451	110	226	245	27
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	220	752	440	291	443	502	406	1600	899	315	1893	664
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	0.65	0.65	0.33	0.55	0.79	0.33	0.64	0.67	0.44	0.63	0.48	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	344	884	33	1071	314	34	85	240	72	600
v/c Ratio	0.62	0.32	0.31	0.53	0.40	0.32	0.29	0.81	0.13	0.74
Control Delay	42.8	16.1	40.5	12.1	1.6	62.8	33.1	68.9	32.5	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	16.1	40.5	12.1	1.6	62.8	33.1	68.9	32.5	22.0
Queue Length 50th (ft)	134	183	25	82	0	26	38	177	42	256
Queue Length 95th (ft)	m159	m215	m51	171	3	61	87	#285	80	304
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	846	2722	105	2021	781	105	297	330	564	936
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.32	0.31	0.53	0.40	0.32	0.29	0.73	0.13	0.64

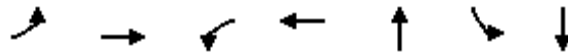
Intersection Summary

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.

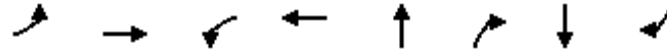
Queues
Int.7: Eucalyptus Ave & Fir Ave



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	39	458	13	699	32	269	85
v/c Ratio	0.31	0.26	0.11	0.43	0.04	0.47	0.12
Control Delay	52.4	12.6	55.8	19.4	19.1	29.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	12.6	55.8	19.4	19.1	29.4	11.3
Queue Length 50th (ft)	19	24	10	146	12	151	17
Queue Length 95th (ft)	m36	153	m29	192	33	231	49
Internal Link Dist (ft)		1543		3135	82		387
Turn Bay Length (ft)	200		100			250	
Base Capacity (vph)	165	1734	135	1628	744	570	738
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.26	0.10	0.43	0.04	0.47	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	95	1032	69	973	88	47	63	126
v/c Ratio	0.54	0.54	0.45	0.55	0.26	0.13	0.14	0.26
Control Delay	64.9	21.0	61.0	33.4	44.5	3.0	38.2	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.9	21.0	61.0	33.4	44.5	3.0	38.2	8.1
Queue Length 50th (ft)	79	272	52	221	59	0	39	0
Queue Length 95th (ft)	m130	87	97	267	109	10	81	51
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250			50		480
Base Capacity (vph)	240	1922	210	1770	334	363	448	488
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	0.40	0.54	0.33	0.55	0.26	0.13	0.14	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	268	20	606	666	62	401
v/c Ratio	0.73	0.04	0.50	0.45	0.44	0.29
Control Delay	56.1	9.5	1.4	0.1	62.6	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	9.5	1.4	0.1	62.6	7.0
Queue Length 50th (ft)	197	0	8	0	46	92
Queue Length 95th (ft)	266	16	m77	m0	93	175
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	556	529	1210	1471	150	1387
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.04	0.50	0.45	0.41	0.29

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.10: Moreno Beach Dr & SR-60 EB Ramps

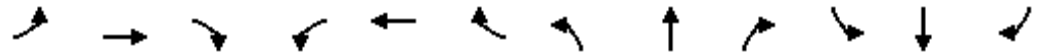


Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	348	724	868	308	633
v/c Ratio	1.05	0.85	1.10	0.39	1.12
Control Delay	110.1	16.3	86.5	8.2	120.7
Queue Delay	0.0	0.0	1.2	0.0	0.0
Total Delay	110.1	16.3	87.7	8.2	120.7
Queue Length 50th (ft)	~293	32	~741	63	~575
Queue Length 95th (ft)	#480	#259	#978	m111	#807
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	332	847	791	790	566
Starvation Cap Reductn	0	0	12	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.05	0.85	1.11	0.39	1.12

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.

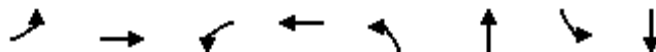
Queues
Int.11: Moreno Beach Dr & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	409	56	221	90	84	182	182	634	36	97	935	297
v/c Ratio	0.81	0.37	0.67	0.33	0.50	0.59	0.71	0.33	0.04	0.55	0.53	0.33
Control Delay	55.3	48.7	19.1	48.5	61.5	15.3	65.6	17.3	0.1	67.4	12.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.6	0.0
Total Delay	55.3	48.7	19.1	48.5	61.5	15.4	65.6	17.4	0.1	67.4	12.7	1.1
Queue Length 50th (ft)	161	42	26	62	63	0	136	141	0	72	124	0
Queue Length 95th (ft)	#226	84	110	115	112	67	#236	212	0	m70	m163	m5
Internal Link Dist (ft)		3135			331			398			465	
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	525	372	493	275	292	402	255	1936	920	206	1777	906
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	427	0
Spillback Cap Reductn	0	0	0	0	0	14	0	236	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	0.15	0.45	0.33	0.29	0.47	0.71	0.37	0.04	0.47	0.69	0.33

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	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	281	432	104	229	119	761	45	1060
v/c Ratio	1.10	0.98	0.99	0.79	1.13	0.76	0.43	1.11
Control Delay	123.2	75.5	142.1	66.4	171.0	20.8	67.5	92.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.2	75.5	142.1	66.4	171.0	20.8	67.5	92.6
Queue Length 50th (ft)	~254	337	82	166	~110	539	34	~936
Queue Length 95th (ft)	#422	#537	#199	#290	#233	339	75	#1195
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	255	443	105	291	105	999	105	956
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	1.10	0.98	0.99	0.79	1.13	0.76	0.43	1.11

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.

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	119	524	48	201	72	168	620	73	118	910
v/c Ratio	0.60	0.64	0.38	0.71	0.15	0.49	0.34	0.07	0.60	0.43
Control Delay	63.0	33.2	61.2	61.9	3.4	33.1	11.1	0.4	60.6	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	33.2	61.2	61.9	3.4	33.1	11.1	0.4	60.6	22.4
Queue Length 50th (ft)	89	140	36	150	0	120	58	0	88	116
Queue Length 95th (ft)	146	180	76	219	17	78	82	0	m72	m131
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	258	1043	150	411	530	345	1800	1025	257	2129
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.50	0.32	0.49	0.14	0.49	0.34	0.07	0.46	0.43

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	37	374	41	85	21	645	336	161	892
v/c Ratio	0.52	0.28	0.81	0.09	0.18	0.20	0.28	0.26	0.67	0.30
Control Delay	68.7	34.7	55.6	33.2	2.9	58.6	24.2	1.4	45.9	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	34.7	55.6	33.2	2.9	58.6	24.2	1.4	45.9	13.9
Queue Length 50th (ft)	50	11	272	25	0	16	120	0	117	176
Queue Length 95th (ft)	98	46	351	48	17	43	189	32	180	283
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	135	292	601	791	741	105	2345	1382	305	2967
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.13	0.62	0.05	0.11	0.20	0.28	0.24	0.53	0.30

Intersection Summary

Queues
Int.24: Redlands Blvd & Ironwood Ave



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	116	58	818	44	909	219
v/c Ratio	0.88	0.32	0.55	0.65	0.42	0.72	0.20
Control Delay	76.3	24.4	59.0	3.5	67.0	19.0	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.3	24.4	59.0	3.5	67.0	19.0	6.3
Queue Length 50th (ft)	148	41	48	23	34	457	40
Queue Length 95th (ft)	#257	92	m67	26	74	687	80
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	287	431	105	1263	105	1264	1102
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.27	0.55	0.65	0.42	0.72	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.

Queues
Int.25: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	16	3	136	4	817	261	455	521
v/c Ratio	0.14	0.01	0.57	0.04	0.73	0.22	1.26	0.34
Control Delay	56.2	0.0	22.2	61.2	26.8	4.7	173.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	0.0	22.2	61.2	26.8	4.7	173.7	10.4
Queue Length 50th (ft)	12	0	14	3	360	35	-434	134
Queue Length 95th (ft)	35	0	73	m5	m#778	m55	#644	378
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	285	348	370	105	1114	1192	361	1518
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	0.06	0.01	0.37	0.04	0.73	0.22	1.26	0.34

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
 Int.26: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	725	154	533	540	58
v/c Ratio	0.94	0.79	0.55	0.77	0.04
Control Delay	52.0	79.8	23.3	37.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	79.8	23.3	37.6	0.9
Queue Length 50th (ft)	487	118	283	435	0
Queue Length 95th (ft)	#738	#228	393	#311	4
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	802	195	968	699	1336
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	0.79	0.55	0.77	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues
 Int.31: Redlands Blvd & Cottonwood Ave



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	19	37	31	471	615	38
v/c Ratio	0.11	0.19	0.18	0.28	0.40	0.03
Control Delay	30.6	13.3	32.3	2.1	5.5	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	13.3	32.3	2.1	5.5	2.0
Queue Length 50th (ft)	9	0	15	39	57	0
Queue Length 95th (ft)	26	24	36	67	206	9
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	460	439	174	1661	1541	1317
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.08	0.18	0.28	0.40	0.03

Intersection Summary

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	1060	193	1014	98	201	520	71	455
v/c Ratio	0.56	0.74	0.77	0.62	0.11	0.78	0.53	0.47	0.61
Control Delay	66.7	34.3	88.7	8.8	0.4	69.2	23.7	63.5	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	34.3	88.7	8.8	0.4	69.2	23.7	63.5	31.0
Queue Length 50th (ft)	65	365	155	76	0	150	101	53	103
Queue Length 95th (ft)	119	455	m202	m112	m0	231	157	103	163
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	180	1436	285	1646	916	300	976	150	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.74	0.68	0.62	0.11	0.67	0.53	0.47	0.61

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	54	523	204	171	923	39	320	471	228	65	571
v/c Ratio	0.51	0.89	0.35	0.84	1.27	0.05	1.19	0.61	0.25	0.62	1.04
Control Delay	72.4	57.4	14.7	82.1	151.8	0.1	158.7	34.4	4.7	80.3	91.6
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	72.4	57.4	14.7	82.1	151.8	0.1	158.7	34.4	4.7	80.3	91.6
Queue Length 50th (ft)	41	376	47	117	-917	0	-298	305	23	50	-502
Queue Length 95th (ft)	77	455	91	m#163	#988	m0	#417	374	46	#97	#623
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	105	617	604	210	728	810	270	766	921	105	548
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	0.51	0.85	0.34	0.81	1.27	0.05	1.19	0.61	0.25	0.62	1.04

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
Int.3: Lasselle St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	138	1246	726	956	506	712	768	176	680
v/c Ratio	0.53	0.86	0.88	0.42	0.96	0.72	0.89	0.67	0.95
Control Delay	47.1	30.9	34.2	8.0	82.2	44.1	28.8	67.3	69.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	30.9	34.2	8.0	82.2	44.1	28.8	67.3	69.5
Queue Length 50th (ft)	55	326	123	58	203	262	312	69	268
Queue Length 95th (ft)	m80	391	#273	69	#311	332	#542	#109	#389
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	262	1455	846	2262	525	992	874	262	717
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.86	0.86	0.42	0.96	0.72	0.88	0.67	0.95

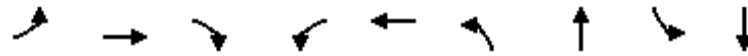
Intersection Summary

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.

Queues
Int.4: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	326	304	309	225	265	138	1250	22	1858
v/c Ratio	1.09	0.54	0.85	0.84	0.53	1.31	0.66	0.21	1.03
Control Delay	124.0	49.4	49.7	63.0	33.9	237.5	22.5	58.9	60.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	124.0	49.4	49.7	63.0	33.9	237.5	22.5	58.9	60.4
Queue Length 50th (ft)	~283	113	137	125	55	~138	382	17	~835
Queue Length 95th (ft)	#357	129	177	#242	80	#213	354	37	660
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	300	676	407	267	555	105	1905	105	1798
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.45	0.76	0.84	0.48	1.31	0.66	0.21	1.03

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.

Queues
Int.5: Nason St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	113	336	277	442	611	312	156	694	136	120	1221	121
v/c Ratio	0.54	0.38	0.48	0.77	0.92	0.42	0.74	0.56	0.21	0.61	0.70	0.19
Control Delay	41.5	18.7	3.7	47.1	50.3	5.0	71.1	34.9	5.8	63.9	37.9	6.1
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	41.5	18.7	3.7	47.1	50.3	5.0	71.1	34.9	5.8	63.9	37.9	6.1
Queue Length 50th (ft)	45	66	10	151	457	17	117	238	0	89	312	0
Queue Length 95th (ft)	m55	m92	m21	m158	m474	m20	176	277	36	141	336	36
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	211	906	582	642	697	761	240	1247	647	225	1749	624
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	0.54	0.37	0.48	0.69	0.88	0.41	0.65	0.56	0.21	0.53	0.70	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

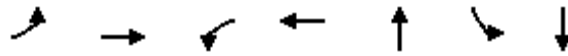


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	512	1333	31	1013	255	14	67	301	32	409
v/c Ratio	0.77	0.61	0.30	0.77	0.45	0.13	0.21	0.67	0.04	0.38
Control Delay	47.6	23.6	54.2	16.7	2.3	56.7	38.9	48.9	24.3	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	23.6	54.2	16.7	2.3	56.7	38.9	48.9	24.3	6.3
Queue Length 50th (ft)	193	275	25	84	3	11	38	211	14	69
Queue Length 95th (ft)	m232	291	m38	113	4	31	77	288	37	105
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	729	2184	105	1318	563	105	326	451	797	1072
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.61	0.30	0.77	0.45	0.13	0.21	0.67	0.04	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

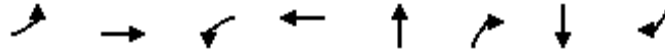
Queues
Int.7: Eucalyptus Ave & Fir Ave



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	80	443	7	506	54	196	73
v/c Ratio	0.31	0.23	0.07	0.36	0.08	0.36	0.11
Control Delay	24.9	5.2	61.7	10.0	19.9	28.8	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	5.2	61.7	10.0	19.9	28.8	8.0
Queue Length 50th (ft)	32	32	5	59	21	107	5
Queue Length 95th (ft)	m52	59	m18	63	48	151	36
Internal Link Dist (ft)		1543		3135	84		387
Turn Bay Length (ft)	200					250	
Base Capacity (vph)	300	1916	135	1424	692	548	674
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.23	0.05	0.36	0.08	0.36	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	347	906	39	910	180	40	78	270
v/c Ratio	0.66	0.35	0.37	0.74	0.58	0.11	0.25	0.55
Control Delay	23.1	3.5	64.8	46.0	54.1	0.6	46.0	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	3.5	64.8	46.0	54.1	0.6	46.0	9.7
Queue Length 50th (ft)	264	49	30	238	130	0	53	0
Queue Length 95th (ft)	359	50	66	284	204	0	100	72
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250			50		480
Base Capacity (vph)	526	2626	105	1236	312	371	311	494
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	0.66	0.35	0.37	0.74	0.58	0.11	0.25	0.55

Intersection Summary

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	243	8	534	611	133	367
v/c Ratio	0.72	0.01	0.50	0.46	0.49	0.26
Control Delay	57.4	10.9	2.8	0.1	53.8	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	10.9	2.8	0.1	53.8	6.0
Queue Length 50th (ft)	178	0	73	0	96	78
Queue Length 95th (ft)	237	9	m103	m0	155	141
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	601	603	1069	1339	270	1417
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.01	0.50	0.46	0.49	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.10: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	309	788	902	308	661
v/c Ratio	0.93	0.93	1.12	0.39	1.20
Control Delay	83.4	25.5	88.1	3.4	148.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	83.4	25.5	88.1	3.4	148.1
Queue Length 50th (ft)	238	80	~812	20	-633
Queue Length 95th (ft)	#358	#215	#887	25	#763
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	332	851	807	799	550
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.93	1.12	0.39	1.20

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.

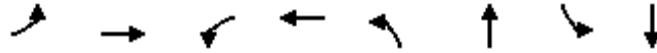
Queues
Int.11: Moreno Beach Dr & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	263	125	139	47	53	119	187	834	90	370	775	212
v/c Ratio	0.73	0.49	0.41	0.41	0.36	0.44	0.71	0.52	0.12	0.85	0.40	0.22
Control Delay	53.6	44.7	14.9	64.9	58.7	8.6	62.9	26.1	2.2	39.4	16.9	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	53.6	44.7	14.9	64.9	58.7	8.7	62.9	26.2	2.2	39.4	16.9	4.6
Queue Length 50th (ft)	96	93	24	36	40	0	140	240	0	223	144	9
Queue Length 95th (ft)	131	138	66	70	73	18	188	288	12	m218	m162	m11
Internal Link Dist (ft)		3135			326			398			465	
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	379	372	428	120	292	380	335	1603	782	436	1947	957
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	5	0	105	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.34	0.32	0.39	0.18	0.32	0.56	0.56	0.12	0.85	0.40	0.22

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	331	77	402	207	872	22	847
v/c Ratio	0.87	0.85	0.45	1.04	1.25	0.86	0.21	0.98
Control Delay	93.9	71.9	62.3	103.1	187.6	20.4	58.9	56.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.9	71.9	62.3	103.1	187.6	20.4	58.9	56.4
Queue Length 50th (ft)	105	254	58	~336	~207	677	17	615
Queue Length 95th (ft)	#241	354	#141	#537	#366	#912	45	#903
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	180	458	173	386	165	1015	105	867
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	0.87	0.72	0.45	1.04	1.25	0.86	0.21	0.98

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.

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	99	294	79	268	115	223	940	102	56	732
v/c Ratio	0.56	0.38	0.52	0.77	0.21	0.49	0.51	0.10	0.45	0.43
Control Delay	63.2	21.2	64.6	60.5	5.9	29.6	13.2	0.6	60.6	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	21.2	64.6	60.5	5.9	29.6	13.2	0.6	60.6	21.0
Queue Length 50th (ft)	74	52	59	199	0	151	107	0	45	106
Queue Length 95th (ft)	119	74	103	252	33	216	146	3	m53	m160
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	228	1024	180	475	534	466	1857	1031	135	1697
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.29	0.44	0.56	0.22	0.48	0.51	0.10	0.41	0.43

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	121	67	459	101	394	30	741	433	209	804
v/c Ratio	0.64	0.44	0.84	0.20	0.58	0.27	0.41	0.36	0.77	0.33
Control Delay	66.9	57.6	52.9	32.7	8.0	60.2	33.4	1.4	60.6	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	57.6	52.9	32.7	8.0	60.2	33.4	1.4	60.6	13.0
Queue Length 50th (ft)	91	47	331	60	20	23	166	1	103	156
Queue Length 95th (ft)	136	82	355	83	55	49	207	11	#152	178
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	225	291	620	688	814	110	1824	1261	288	2430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.23	0.74	0.15	0.48	0.27	0.41	0.34	0.73	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	218	48	60	598	15	943	158
v/c Ratio	0.81	0.17	0.57	0.43	0.14	0.72	0.14
Control Delay	66.4	32.5	58.7	1.2	56.9	16.9	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	32.5	58.7	1.2	56.9	16.9	5.0
Queue Length 50th (ft)	149	22	49	2	11	447	24
Queue Length 95th (ft)	213	51	m54	m8	32	573	48
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	317	332	105	1376	105	1316	1137
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.14	0.57	0.43	0.14	0.72	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	17	11	301	18	552	289	499	513
v/c Ratio	0.15	0.05	0.71	0.17	0.95	0.28	0.91	0.45
Control Delay	56.3	0.4	47.8	45.3	54.1	1.0	50.9	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	0.4	47.8	45.3	54.1	1.0	50.9	7.5
Queue Length 50th (ft)	13	0	195	14	-457	4	374	159
Queue Length 95th (ft)	35	0	271	m19	m#594	m12	#569	200
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	283	348	426	105	580	1020	549	1148
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	0.06	0.03	0.71	0.17	0.95	0.28	0.91	0.45

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
 Int.26: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	618	170	700	649	74
v/c Ratio	0.94	0.83	0.63	0.79	0.06
Control Delay	53.9	82.2	20.7	27.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	82.2	20.7	27.9	0.3
Queue Length 50th (ft)	384	130	363	257	1
Queue Length 95th (ft)	#607	#201	406	326	m2
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	701	213	1105	824	1374
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.88	0.80	0.63	0.79	0.05

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.

Queues
 Int.31: Redlands Blvd & Cottonwood Ave



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	38	58	44	685	495	37
v/c Ratio	0.27	0.32	0.36	0.41	0.33	0.03
Control Delay	48.2	16.7	53.4	2.7	5.2	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	16.7	53.4	2.7	5.2	1.5
Queue Length 50th (ft)	23	0	27	71	95	0
Queue Length 95th (ft)	51	33	59	113	140	7
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	335	347	123	1658	1494	1278
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.17	0.36	0.41	0.33	0.03

Intersection Summary

Queues
Int.1: Kitching St & Iris Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	1199	231	904	115	87	306	95	355
v/c Ratio	0.70	0.77	0.67	0.50	0.11	0.58	0.46	0.67	0.58
Control Delay	66.4	32.4	31.4	8.5	0.2	69.0	24.8	76.3	38.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	32.4	31.4	8.5	0.2	69.0	24.8	76.3	38.5
Queue Length 50th (ft)	117	401	100	72	0	66	55	72	98
Queue Length 95th (ft)	186	489	m162	m95	m0	#127	101	#145	150
Internal Link Dist (ft)		905		3280			601		658
Turn Bay Length (ft)	135		115			180		200	
Base Capacity (vph)	270	1553	345	1818	1045	150	662	150	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.77	0.67	0.50	0.11	0.58	0.46	0.63	0.58

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.

Queues

Int.2: Lasselle St & Alessandro Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	768	273	143	612	58	215	479	169	38	530
v/c Ratio	0.52	1.05	0.40	1.06	0.91	0.08	1.02	0.68	0.22	0.36	0.97
Control Delay	63.7	85.3	16.6	142.6	28.9	0.2	120.7	38.9	6.3	64.4	73.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	85.3	16.6	142.6	28.9	0.2	120.7	38.9	6.3	64.4	73.2
Queue Length 50th (ft)	75	-651	82	-124	244	1	-177	320	22	29	402
Queue Length 95th (ft)	#162	#890	155	m#213	m#417	m1	#333	447	55	66	#627
Internal Link Dist (ft)		830			5181			381			397
Turn Bay Length (ft)	175		65	150		25	200		120	150	
Base Capacity (vph)	187	728	691	135	728	766	210	700	785	105	548
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	0.52	1.05	0.40	1.06	0.84	0.08	1.02	0.68	0.22	0.36	0.97

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.

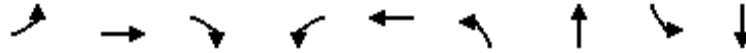


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	190	1061	947	1096	303	677	605	266	948
v/c Ratio	0.62	0.89	0.98	0.52	0.94	0.70	0.63	0.76	0.96
Control Delay	62.0	29.8	61.9	20.4	92.2	44.4	17.9	67.3	63.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	29.8	61.9	20.4	92.2	44.4	17.9	67.3	63.8
Queue Length 50th (ft)	61	168	379	258	122	250	256	105	378
Queue Length 95th (ft)	m91	#166	#522	224	#210	317	377	#163	#516
Internal Link Dist (ft)		3280		4567		390			301
Turn Bay Length (ft)	200		220		200		200	200	
Base Capacity (vph)	321	1193	963	2119	321	962	963	350	984
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.89	0.98	0.52	0.94	0.70	0.63	0.76	0.96

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.

Queues
Int.4: Nason St & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	59	224	85	232	241	91	1317	25	1095
v/c Ratio	0.45	0.58	0.31	0.80	0.32	0.70	0.65	0.24	0.58
Control Delay	63.7	56.7	6.2	51.0	28.7	81.6	20.5	59.8	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	56.7	6.2	51.0	28.7	81.6	20.5	59.8	21.8
Queue Length 50th (ft)	44	88	0	152	94	70	377	19	298
Queue Length 95th (ft)	89	125	23	#180	107	#147	511	49	406
Internal Link Dist (ft)		585			1543		334		544
Turn Bay Length (ft)	200		25	200		300		175	
Base Capacity (vph)	150	559	350	330	917	135	2034	105	1876
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.40	0.24	0.70	0.26	0.67	0.65	0.24	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Int.5: Nason St & Alessandro Blvd

Moreno Valley Trade Center
03/30/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	516	147	170	379	164	258	1074	411	199	909	99
v/c Ratio	0.65	0.69	0.34	0.61	0.89	0.34	0.64	0.69	0.47	0.75	0.50	0.15
Control Delay	37.1	21.0	4.0	55.0	61.0	8.8	50.2	31.5	7.9	66.6	31.8	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	21.0	4.0	55.0	61.0	8.8	50.2	31.5	7.9	66.6	31.8	3.8
Queue Length 50th (ft)	52	141	22	68	290	21	182	360	42	149	204	0
Queue Length 95th (ft)	m56	m146	m25	m76	m313	m28	275	458	128	226	248	27
Internal Link Dist (ft)		5181			402			545			744	
Turn Bay Length (ft)	250		125	250		250	275		275	270		330
Base Capacity (vph)	220	782	447	291	459	514	406	1560	880	315	1836	647
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	0.65	0.66	0.33	0.58	0.83	0.32	0.64	0.69	0.47	0.63	0.50	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	344	935	33	1118	314	34	85	240	72	600
v/c Ratio	0.61	0.34	0.31	0.55	0.40	0.32	0.29	0.83	0.13	0.74
Control Delay	39.5	12.4	40.5	10.9	2.1	62.8	33.1	72.2	33.1	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	12.4	40.5	10.9	2.1	62.8	33.1	72.2	33.1	22.3
Queue Length 50th (ft)	117	155	25	71	0	26	38	179	42	262
Queue Length 95th (ft)	m136	m192	m49	344	3	61	87	#297	81	302
Internal Link Dist (ft)		4567		3001			126		440	
Turn Bay Length (ft)	260		150		160	100		200		200
Base Capacity (vph)	875	2743	105	2031	778	105	297	315	556	943
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.34	0.31	0.55	0.40	0.32	0.29	0.76	0.13	0.64

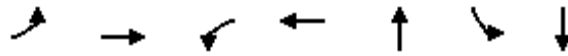
Intersection Summary

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.

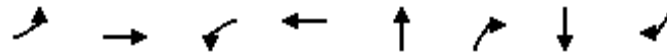
Queues
Int.7: Eucalyptus Ave & Fir Ave



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	39	487	13	726	32	269	85
v/c Ratio	0.31	0.28	0.11	0.45	0.04	0.47	0.12
Control Delay	51.3	13.1	49.8	15.7	19.1	29.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	13.1	49.8	15.7	19.1	29.4	11.3
Queue Length 50th (ft)	19	24	9	155	12	151	17
Queue Length 95th (ft)	m36	180	m23	267	33	231	49
Internal Link Dist (ft)		1543		3135	82		387
Turn Bay Length (ft)	200		100			250	
Base Capacity (vph)	165	1734	135	1624	744	570	738
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.28	0.10	0.45	0.04	0.47	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	95	1084	69	1023	88	47	63	126
v/c Ratio	0.54	0.56	0.45	0.58	0.26	0.13	0.14	0.26
Control Delay	58.2	18.3	61.0	33.9	44.5	3.0	38.2	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	18.3	61.0	33.9	44.5	3.0	38.2	8.1
Queue Length 50th (ft)	78	265	52	236	59	0	39	0
Queue Length 95th (ft)	m130	101	97	283	109	10	81	51
Internal Link Dist (ft)		3001		948	104		471	
Turn Bay Length (ft)	225		250			50		480
Base Capacity (vph)	270	1924	240	1770	334	363	448	488
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	0.35	0.56	0.29	0.58	0.26	0.13	0.14	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.9: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	268	20	623	827	62	418
v/c Ratio	0.71	0.04	0.51	0.56	0.48	0.30
Control Delay	54.2	9.5	1.5	0.9	66.2	7.3
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	54.2	9.5	1.5	1.2	66.2	7.3
Queue Length 50th (ft)	195	0	19	0	47	100
Queue Length 95th (ft)	263	16	m73	m0	94	188
Internal Link Dist (ft)	602		780			399
Turn Bay Length (ft)	150			200	175	
Base Capacity (vph)	571	525	1213	1474	135	1377
Starvation Cap Reductn	0	0	0	195	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.04	0.51	0.65	0.46	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 Int.10: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	348	881	1037	308	649
v/c Ratio	0.92	1.00	1.31	0.40	1.25
Control Delay	77.6	42.3	170.1	6.0	170.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	42.3	170.1	6.0	170.7
Queue Length 50th (ft)	266	-205	-1040	77	-640
Queue Length 95th (ft)	#444	#508	#1261	m86	#874
Internal Link Dist (ft)	650		465		780
Turn Bay Length (ft)		590			
Base Capacity (vph)	377	879	791	770	518
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.92	1.00	1.31	0.40	1.25

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
 Int.11: Moreno Beach Dr & Eucalyptus Ave

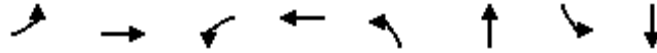
Moreno Valley Trade Center
 03/30/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	409	85	221	106	111	357	182	634	53	277	935	297
v/c Ratio	0.81	0.49	0.64	0.37	0.54	0.73	0.76	0.41	0.07	0.82	0.54	0.33
Control Delay	50.5	47.2	12.8	48.4	59.7	14.0	70.7	26.2	2.2	51.9	14.0	1.4
Queue Delay	0.4	0.0	0.0	0.0	0.0	0.7	0.0	0.3	0.0	0.0	0.6	0.0
Total Delay	50.9	47.2	12.8	48.4	59.7	14.7	70.7	26.5	2.2	51.9	14.6	1.4
Queue Length 50th (ft)	161	56	17	74	83	0	138	181	0	172	138	5
Queue Length 95th (ft)	#227	94	33	128	135	88	#248	252	12	m165	m172	m4
Internal Link Dist (ft)		3135			324			398				465
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	525	348	476	288	300	556	240	1548	739	361	1741	892
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	423	0
Spillback Cap Reductn	10	0	0	0	0	46	0	401	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.24	0.46	0.37	0.37	0.70	0.76	0.55	0.07	0.77	0.71	0.33

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	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	281	483	141	276	119	800	45	1060
v/c Ratio	1.10	1.17	1.04	0.95	1.13	0.80	0.43	1.11
Control Delay	126.2	137.9	143.4	90.4	169.7	22.9	67.5	92.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	126.2	137.9	143.4	90.4	169.7	22.9	67.5	92.6
Queue Length 50th (ft)	~254	~444	~118	209	~110	576	34	~936
Queue Length 95th (ft)	#431	#659	#250	#379	#237	401	75	#1195
Internal Link Dist (ft)		4719		5204		865		432
Turn Bay Length (ft)	100		175		125		275	
Base Capacity (vph)	255	413	135	291	105	994	105	956
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	1.10	1.17	1.04	0.95	1.13	0.80	0.43	1.11

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.

Queues
Int.14: Moreno Beach Dr & Cactus Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	119	524	48	201	72	168	659	73	118	947
v/c Ratio	0.60	0.64	0.38	0.71	0.15	0.45	0.37	0.07	0.60	0.46
Control Delay	63.0	33.2	61.2	61.9	3.4	28.8	10.6	0.3	59.2	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	33.2	61.2	61.9	3.4	28.8	10.6	0.3	59.2	23.9
Queue Length 50th (ft)	89	140	36	150	0	117	58	0	88	121
Queue Length 95th (ft)	146	180	76	219	17	54	82	0	m69	m143
Internal Link Dist (ft)		687		395			2586			392
Turn Bay Length (ft)	150		150			200			200	
Base Capacity (vph)	258	1043	150	411	530	376	1800	1025	257	2045
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.50	0.32	0.49	0.14	0.45	0.37	0.07	0.46	0.46

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.15: Moreno Beach Dr & John F Kennedy Dr



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	37	396	41	85	21	685	359	161	930
v/c Ratio	0.52	0.28	0.82	0.09	0.18	0.20	0.30	0.28	0.68	0.32
Control Delay	68.7	34.7	54.9	32.0	2.8	58.6	25.4	1.4	43.4	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	34.7	54.9	32.0	2.8	58.6	25.4	1.4	43.4	14.9
Queue Length 50th (ft)	50	11	287	24	0	16	131	0	118	201
Queue Length 95th (ft)	98	46	368	47	17	43	205	33	181	310
Internal Link Dist (ft)		308		732			605			2586
Turn Bay Length (ft)	100		325			275		250	350	
Base Capacity (vph)	135	292	616	807	754	105	2282	1381	293	2907
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.13	0.64	0.05	0.11	0.20	0.30	0.26	0.55	0.32

Intersection Summary



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	116	58	860	44	954	219
v/c Ratio	0.88	0.32	0.51	0.68	0.42	0.76	0.20
Control Delay	78.1	25.0	80.7	9.8	67.0	20.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.1	25.0	80.7	9.8	67.0	20.7	6.4
Queue Length 50th (ft)	148	42	48	65	34	532	43
Queue Length 95th (ft)	#265	94	m64	264	74	741	78
Internal Link Dist (ft)	568	292		1754		810	
Turn Bay Length (ft)			325		350		85
Base Capacity (vph)	277	416	113	1266	105	1258	1096
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.28	0.51	0.68	0.42	0.76	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.

Queues
Int.25: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	16	3	183	4	858	345	455	565
v/c Ratio	0.14	0.01	0.66	0.04	0.79	0.28	1.32	0.38
Control Delay	56.2	0.0	31.0	57.5	32.4	4.9	198.0	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	0.0	31.0	57.5	32.4	4.9	198.0	12.9
Queue Length 50th (ft)	12	0	48	3	478	51	-447	209
Queue Length 95th (ft)	35	0	117	m4	m#845	m68	#657	436
Internal Link Dist (ft)	367		575		1453			1754
Turn Bay Length (ft)		25		125		250	325	
Base Capacity (vph)	285	348	372	105	1089	1223	345	1478
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	0.06	0.01	0.49	0.04	0.79	0.28	1.32	0.38

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	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	804	201	659	631	58
v/c Ratio	1.01	1.03	0.71	0.95	0.04
Control Delay	66.2	125.1	28.9	56.5	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	125.1	28.9	56.5	1.3
Queue Length 50th (ft)	~602	~166	385	510	0
Queue Length 95th (ft)	#877	#320	529	#687	17
Internal Link Dist (ft)	606		500	1453	
Turn Bay Length (ft)		300			70
Base Capacity (vph)	797	195	934	665	1342
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.01	1.03	0.71	0.95	0.04

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.

Queues
Int.31: Redlands Blvd & Cottonwood Ave



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	19	37	31	607	741	38
v/c Ratio	0.11	0.19	0.18	0.37	0.48	0.03
Control Delay	30.6	13.3	32.3	2.5	6.4	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	13.3	32.3	2.5	6.4	2.0
Queue Length 50th (ft)	9	0	15	56	76	0
Queue Length 95th (ft)	26	24	36	94	277	9
Internal Link Dist (ft)	1175			2549	2540	
Turn Bay Length (ft)	300		100			200
Base Capacity (vph)	460	439	174	1661	1541	1317
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.08	0.18	0.37	0.48	0.03

Intersection Summary

Queues

Int.1: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	324	11	588	615	621	149
v/c Ratio	0.77	0.03	0.23	0.38	0.25	0.13
Control Delay	54.7	14.9	6.1	1.6	7.6	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	14.9	6.1	1.6	7.6	1.6
Queue Length 50th (ft)	236	0	53	27	82	0
Queue Length 95th (ft)	307	14	66	37	138	24
Internal Link Dist (ft)			780		399	
Turn Bay Length (ft)	150					150
Base Capacity (vph)	887	799	2525	1615	2525	1174
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.01	0.23	0.38	0.25	0.13

Intersection Summary

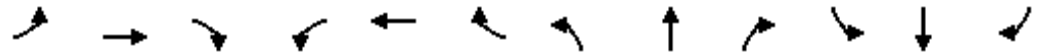
Queues
 Int.2: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	232	302	298	944	386	88	856
v/c Ratio	0.67	0.67	0.65	0.60	0.42	0.18	0.32
Control Delay	52.6	22.5	21.4	21.0	8.5	40.8	4.1
Queue Delay	0.0	0.0	0.0	0.4	0.3	0.0	0.0
Total Delay	52.6	22.5	21.4	21.4	8.8	40.8	4.1
Queue Length 50th (ft)	175	85	77	244	89	47	64
Queue Length 95th (ft)	240	175	163	301	160	103	100
Internal Link Dist (ft)		650		465			780
Turn Bay Length (ft)			590				
Base Capacity (vph)	500	570	582	1564	918	476	2637
Starvation Cap Reductn	0	0	0	229	163	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.53	0.51	0.71	0.51	0.18	0.32
Intersection Summary							

Queues
Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
10/29/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	449	170	133	46	193	122	166	760	67	243	758	432
v/c Ratio	0.75	0.54	0.35	0.21	0.54	0.45	0.52	0.30	0.08	0.61	0.29	0.42
Control Delay	42.7	39.2	10.1	47.8	56.8	14.1	57.5	20.6	0.2	58.9	17.7	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	42.7	39.2	10.1	47.8	56.8	14.1	57.5	20.6	0.2	58.9	17.7	4.3
Queue Length 50th (ft)	184	136	47	32	76	0	64	126	0	98	100	12
Queue Length 95th (ft)	236	205	72	67	111	56	97	191	0	128	178	63
Internal Link Dist (ft)		3135			340			398				465
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	758	585	589	231	631	383	363	2505	860	671	2617	1029
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	117
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	0.59	0.29	0.23	0.20	0.31	0.32	0.46	0.30	0.08	0.36	0.29	0.47

Intersection Summary

Queues

Int.10: Redlands Blvd & SR-60 WB Ramps



Lane Group	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	138	135	105	672	333	674	464
v/c Ratio	0.63	0.62	0.37	0.23	0.21	0.23	0.33
Control Delay	61.7	58.1	11.8	3.3	0.3	2.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	58.1	11.8	3.3	0.3	2.2	0.6
Queue Length 50th (ft)	108	103	0	61	0	32	0
Queue Length 95th (ft)	170	168	50	77	0	40	4
Internal Link Dist (ft)		1428		787		2103	
Turn Bay Length (ft)			300		500		300
Base Capacity (vph)	485	468	509	2907	1615	2907	1391
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.29	0.21	0.23	0.21	0.23	0.33

Intersection Summary

Queues
Int.11: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	187	179	175	777	158	874	61
v/c Ratio	0.67	0.49	0.46	0.28	0.12	0.31	0.04
Control Delay	58.2	16.5	12.5	4.8	1.0	5.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	16.5	12.5	4.8	1.0	5.4	0.0
Queue Length 50th (ft)	145	30	13	77	0	53	0
Queue Length 95th (ft)	210	97	74	135	19	192	0
Internal Link Dist (ft)		1600		824		787	
Turn Bay Length (ft)			350		350		350
Base Capacity (vph)	585	607	626	2781	1280	2781	1615
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.29	0.28	0.28	0.12	0.31	0.04
Intersection Summary							

Queues
Int.15: Redlands Blvd & Encilia Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	84	18	25	118	2	687	97	552	114
v/c Ratio	0.49	0.04	0.20	0.39	0.02	0.32	0.53	0.21	0.09
Control Delay	56.0	38.1	52.0	22.7	58.5	15.2	56.6	6.5	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	38.1	52.0	22.7	58.5	15.2	56.6	6.5	1.4
Queue Length 50th (ft)	57	4	17	13	1	113	66	55	0
Queue Length 95th (ft)	104	16	45	42	m10	155	116	128	19
Internal Link Dist (ft)		580		407		2540		288	
Turn Bay Length (ft)	250		250		250		200		150
Base Capacity (vph)	278	904	147	654	262	2179	262	2618	1206
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.02	0.17	0.18	0.01	0.32	0.37	0.21	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Int.1: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	405	57	764	769	596	132
v/c Ratio	0.79	0.11	0.33	0.48	0.25	0.12
Control Delay	50.8	7.2	9.9	1.8	10.1	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	7.2	9.9	1.8	10.1	2.2
Queue Length 50th (ft)	290	0	114	26	94	0
Queue Length 95th (ft)	360	28	135	45	155	27
Internal Link Dist (ft)			780		399	
Turn Bay Length (ft)	150					150
Base Capacity (vph)	887	823	2347	1615	2347	1096
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.07	0.33	0.48	0.25	0.12

Intersection Summary

Queues

Int.2: Moreno Beach Dr & SR-60 EB Ramps

10/29/2020



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	315	416	405	1184	574	90	910
v/c Ratio	0.70	0.82	0.78	0.77	0.58	0.24	0.38
Control Delay	48.1	38.8	35.1	20.3	6.1	43.9	6.6
Queue Delay	0.0	0.0	0.0	0.9	0.5	0.0	0.0
Total Delay	48.1	38.8	35.1	21.2	6.7	43.9	6.6
Queue Length 50th (ft)	227	210	189	274	111	53	131
Queue Length 95th (ft)	316	337	303	364	m179	108	171
Internal Link Dist (ft)		650		465			780
Turn Bay Length (ft)			590				
Base Capacity (vph)	543	579	593	1546	995	379	2424
Starvation Cap Reductn	0	0	0	142	139	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.72	0.68	0.84	0.67	0.24	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Moreno Beach Dr & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	713	272	235	89	214	326	236	719	36	268	963	502
v/c Ratio	0.89	0.75	0.47	0.32	0.50	0.73	0.81	0.35	0.05	0.64	0.43	0.53
Control Delay	35.1	33.1	4.0	48.7	52.9	17.9	75.6	27.4	0.1	61.6	23.8	7.7
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	35.2	33.1	4.0	48.7	52.9	17.9	75.6	27.4	0.1	61.6	23.8	7.8
Queue Length 50th (ft)	176	114	7	62	83	24	94	141	0	96	138	17
Queue Length 95th (ft)	#289	158	15	114	114	113	#158	207	0	m138	242	107
Internal Link Dist (ft)		3135			341			398				465
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	846	728	764	280	902	623	291	2066	714	526	2258	941
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	58
Spillback Cap Reductn	4	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	0.85	0.37	0.31	0.32	0.24	0.52	0.81	0.35	0.05	0.51	0.43	0.57

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.

Queues

Int.10: Redlands Blvd & SR-60 WB Ramps



Lane Group	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	135	137	61	1030	280	672	475
v/c Ratio	0.55	0.56	0.23	0.37	0.17	0.24	0.35
Control Delay	42.3	39.3	10.5	4.2	0.2	3.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	39.3	10.5	4.2	0.2	3.6	1.2
Queue Length 50th (ft)	73	70	0	74	0	42	0
Queue Length 95th (ft)	123	123	32	136	0	81	25
Internal Link Dist (ft)		1235		813		2088	
Turn Bay Length (ft)			300		500		300
Base Capacity (vph)	515	501	503	2761	1615	2761	1347
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.27	0.12	0.37	0.17	0.24	0.35

Intersection Summary

Queues
Int.11: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	342	329	312	799	159	878	59
v/c Ratio	0.72	0.70	0.62	0.34	0.14	0.37	0.04
Control Delay	46.8	39.7	28.4	10.8	2.1	11.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	39.7	28.4	10.8	2.1	11.2	0.0
Queue Length 50th (ft)	252	215	146	132	0	149	0
Queue Length 95th (ft)	313	284	213	222	30	249	0
Internal Link Dist (ft)		1677		814		813	
Turn Bay Length (ft)			350		350		350
Base Capacity (vph)	743	705	725	2364	1112	2364	1615
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.47	0.43	0.34	0.14	0.37	0.04

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	235	98	31	208	3	699	201	788	165
v/c Ratio	0.70	0.10	0.20	0.46	0.02	0.60	0.59	0.40	0.17
Control Delay	41.7	21.3	37.2	13.5	32.3	32.3	36.3	13.3	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	21.3	37.2	13.5	32.3	32.3	36.3	13.3	2.8
Queue Length 50th (ft)	110	16	15	12	1	197	92	105	0
Queue Length 95th (ft)	177	37	41	42	m7	#281	151	223	33
Internal Link Dist (ft)		580		196		2540		288	
Turn Bay Length (ft)	250		250		250		200		150
Base Capacity (vph)	406	1303	157	842	157	1173	343	1947	952
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.08	0.20	0.25	0.02	0.60	0.59	0.40	0.17

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.

Queues

Int.1: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	324	11	589	643	624	149
v/c Ratio	0.77	0.03	0.23	0.40	0.25	0.13
Control Delay	54.7	14.9	6.1	1.9	7.6	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	14.9	6.1	1.9	7.6	1.6
Queue Length 50th (ft)	236	0	50	34	83	0
Queue Length 95th (ft)	307	14	64	48	139	24
Internal Link Dist (ft)			780		399	
Turn Bay Length (ft)	150					150
Base Capacity (vph)	887	799	2525	1615	2525	1174
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.01	0.23	0.40	0.25	0.13

Intersection Summary

Queues
 Int.2: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	232	347	349	973	386	88	859
v/c Ratio	0.63	0.76	0.75	0.65	0.43	0.18	0.33
Control Delay	49.0	31.2	30.5	20.7	8.1	41.0	4.6
Queue Delay	0.0	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay	49.0	31.2	30.5	21.1	8.4	41.0	4.6
Queue Length 50th (ft)	174	141	136	255	92	47	66
Queue Length 95th (ft)	228	231	220	315	166	104	111
Internal Link Dist (ft)		650		465			780
Turn Bay Length (ft)			590				
Base Capacity (vph)	543	591	605	1504	898	483	2590
Starvation Cap Reductn	0	0	0	182	151	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.59	0.58	0.74	0.52	0.18	0.33
Intersection Summary							

Queues
Int.3: Moreno Beach Dr & Eucalyptus Ave

Moreno Valley Trade Center
10/29/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	449	175	133	47	195	151	166	760	70	343	758	432
v/c Ratio	0.75	0.55	0.35	0.21	0.54	0.51	0.52	0.32	0.09	0.69	0.29	0.42
Control Delay	42.1	38.8	9.9	48.2	56.7	13.9	57.5	23.0	0.2	59.1	16.5	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	42.1	38.8	9.9	48.2	56.7	13.9	57.5	23.0	0.2	59.1	16.5	3.8
Queue Length 50th (ft)	184	140	47	33	76	0	64	134	0	134	97	10
Queue Length 95th (ft)	236	210	70	69	112	61	97	203	0	165	172	54
Internal Link Dist (ft)		3135			340			398			465	
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	758	585	589	228	631	407	363	2354	817	671	2613	1028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	123
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	0.59	0.30	0.23	0.21	0.31	0.37	0.46	0.32	0.09	0.51	0.29	0.48

Intersection Summary

Queues

Int.10: Redlands Blvd & SR-60 WB Ramps



Lane Group	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	152	148	115	657	363	683	453
v/c Ratio	0.64	0.64	0.37	0.23	0.22	0.24	0.33
Control Delay	60.7	57.5	11.0	3.5	0.3	2.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	57.5	11.0	3.5	0.3	2.5	0.6
Queue Length 50th (ft)	120	114	0	63	0	36	0
Queue Length 95th (ft)	181	178	52	78	0	44	5
Internal Link Dist (ft)		1229		803		2091	
Turn Bay Length (ft)			300		500		300
Base Capacity (vph)	514	495	540	2871	1615	2871	1377
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.30	0.21	0.23	0.22	0.24	0.33

Intersection Summary

Queues
 Int.11: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	205	220	214	809	166	908	61
v/c Ratio	0.67	0.58	0.55	0.30	0.13	0.33	0.04
Control Delay	56.2	22.1	20.7	5.6	1.1	6.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	22.1	20.7	5.6	1.1	6.4	0.0
Queue Length 50th (ft)	156	59	52	90	0	60	0
Queue Length 95th (ft)	223	137	124	153	21	281	0
Internal Link Dist (ft)		1625		820		803	
Turn Bay Length (ft)			350		350		350
Base Capacity (vph)	600	612	627	2726	1260	2726	1615
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.36	0.34	0.30	0.13	0.33	0.04
Intersection Summary							

Queues
Int.15: Redlands Blvd & Encilia Ave

Moreno Valley Trade Center
10/29/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	96	21	25	118	28	689	99	558	136
v/c Ratio	0.52	0.04	0.20	0.39	0.22	0.33	0.54	0.24	0.12
Control Delay	56.5	33.8	52.0	22.7	54.3	17.8	56.7	9.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	33.8	52.0	22.7	54.3	17.8	56.7	9.6	2.3
Queue Length 50th (ft)	65	4	17	13	21	111	68	85	0
Queue Length 95th (ft)	115	17	45	42	52	145	118	141	28
Internal Link Dist (ft)		580		407		2540		288	
Turn Bay Length (ft)	250		250		250		200		150
Base Capacity (vph)	278	889	147	654	262	2082	262	2356	1101
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.02	0.17	0.18	0.11	0.33	0.38	0.24	0.12

Intersection Summary

Queues

Int.1: Moreno Beach Dr & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	405	57	767	869	597	132
v/c Ratio	0.79	0.11	0.33	0.54	0.25	0.12
Control Delay	50.8	7.2	4.0	3.3	10.1	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	7.2	4.0	3.3	10.1	2.2
Queue Length 50th (ft)	290	0	32	51	94	0
Queue Length 95th (ft)	360	28	52	138	156	27
Internal Link Dist (ft)			780		399	
Turn Bay Length (ft)	150					150
Base Capacity (vph)	887	823	2347	1615	2347	1096
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.07	0.33	0.54	0.25	0.12

Intersection Summary

Queues

Int.2: Moreno Beach Dr & SR-60 EB Ramps

10/29/2020

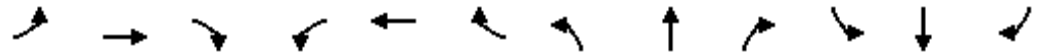


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	315	435	425	1287	574	90	911
v/c Ratio	0.69	0.85	0.81	0.82	0.58	0.25	0.38
Control Delay	47.5	41.3	37.4	21.3	4.9	56.6	5.8
Queue Delay	0.0	0.0	0.0	1.6	0.6	0.0	0.0
Total Delay	47.5	41.3	37.4	22.9	5.5	56.6	5.8
Queue Length 50th (ft)	222	221	200	319	117	66	87
Queue Length 95th (ft)	321	364	330	398	m0	121	124
Internal Link Dist (ft)		650		465			780
Turn Bay Length (ft)			590				
Base Capacity (vph)	528	570	584	1579	986	356	2412
Starvation Cap Reductn	0	0	0	143	143	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.76	0.73	0.90	0.68	0.25	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Int.3: Moreno Beach Dr & Eucalyptus Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	713	274	235	92	220	429	236	719	37	308	963	502
v/c Ratio	0.89	0.73	0.46	0.26	0.38	0.85	0.81	0.40	0.06	0.69	0.47	0.56
Control Delay	35.2	33.2	3.9	41.9	45.1	30.6	75.6	32.9	0.2	55.8	27.2	6.9
Queue Delay	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	36.1	33.2	3.9	41.9	45.1	30.7	75.6	32.9	0.2	55.8	27.2	7.0
Queue Length 50th (ft)	169	119	6	60	81	105	94	157	0	108	187	21
Queue Length 95th (ft)	#293	162	14	106	107	213	#158	229	0	m157	274	121
Internal Link Dist (ft)		3135			341			398			465	
Turn Bay Length (ft)	225		150	115		140	240		100	120		150
Base Capacity (vph)	846	728	764	350	902	623	291	1802	638	525	2035	890
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	32
Spillback Cap Reductn	28	0	0	0	0	2	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	0.87	0.38	0.31	0.26	0.24	0.69	0.81	0.40	0.06	0.59	0.47	0.59

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.

Queues

Int.10: Redlands Blvd & SR-60 WB Ramps



Lane Group	WBL	WBT	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	140	142	61	1039	381	672	475
v/c Ratio	0.64	0.65	0.24	0.36	0.24	0.23	0.34
Control Delay	62.1	59.8	13.0	2.5	0.3	2.8	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	59.8	13.0	2.5	0.3	2.8	0.8
Queue Length 50th (ft)	110	109	0	45	0	46	0
Queue Length 95th (ft)	171	174	40	105	0	65	9
Internal Link Dist (ft)		1179		812		2077	
Turn Bay Length (ft)			300		500		300
Base Capacity (vph)	471	457	466	2906	1615	2906	1392
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.31	0.13	0.36	0.24	0.23	0.34

Intersection Summary

Queues
 Int.11: Redlands Blvd & SR-60 EB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	358	343	323	909	186	892	59
v/c Ratio	0.80	0.78	0.61	0.37	0.16	0.37	0.04
Control Delay	55.7	46.9	21.8	9.6	1.5	11.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	46.9	21.8	9.6	1.5	11.5	0.0
Queue Length 50th (ft)	265	224	98	159	0	210	0
Queue Length 95th (ft)	378	345	200	203	25	308	0
Internal Link Dist (ft)		1674		825		812	
Turn Bay Length (ft)			350		350		350
Base Capacity (vph)	500	489	572	2432	1148	2432	1615
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.70	0.56	0.37	0.16	0.37	0.04
Intersection Summary							



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	277	107	31	208	13	700	208	809	174
v/c Ratio	0.71	0.10	0.18	0.46	0.08	0.65	0.62	0.44	0.19
Control Delay	38.8	18.1	35.8	13.5	29.9	33.0	39.6	15.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	18.1	35.8	13.5	29.9	33.0	39.6	15.6	3.7
Queue Length 50th (ft)	128	16	15	12	7	200	94	116	0
Queue Length 95th (ft)	191	35	39	42	21	#282	#190	256	41
Internal Link Dist (ft)		580		196		2540		288	
Turn Bay Length (ft)	250		250		250		200		150
Base Capacity (vph)	436	1156	248	842	158	1085	333	1834	907
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.09	0.13	0.25	0.08	0.65	0.62	0.44	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Int.2: Moreno Beach Dr & SR-60 EB Ramps

10/29/2020



Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	330	323	654	146	16	347
v/c Ratio	0.81	0.64	0.69	0.17	0.04	0.23
Control Delay	34.3	10.3	11.2	0.5	41.2	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	10.3	11.2	0.5	41.2	5.8
Queue Length 50th (ft)	105	0	184	0	11	43
Queue Length 95th (ft)	166	52	81	0	30	137
Internal Link Dist (ft)	650		465			780
Turn Bay Length (ft)		590			250	
Base Capacity (vph)	531	617	953	882	444	1484
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.52	0.69	0.17	0.04	0.23

Intersection Summary

Queues
Int.2: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	327	317	742	171	8	329
v/c Ratio	0.84	0.60	0.75	0.19	0.02	0.23
Control Delay	44.5	9.5	13.2	0.4	45.4	4.2
Queue Delay	0.0	0.0	1.0	0.0	0.0	0.0
Total Delay	44.5	9.5	14.2	0.4	45.4	4.2
Queue Length 50th (ft)	144	0	105	0	6	46
Queue Length 95th (ft)	250	80	153	0	22	98
Internal Link Dist (ft)	650		465			780
Turn Bay Length (ft)		590			250	
Base Capacity (vph)	468	590	989	917	377	1450
Starvation Cap Reductn	0	0	81	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.54	0.82	0.19	0.02	0.23
Intersection Summary						

Queues
 Int.2: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	554	522	889	308	94	558
v/c Ratio	0.86	0.71	0.77	0.42	0.26	0.53
Control Delay	45.7	20.0	32.0	6.2	58.9	14.4
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	45.7	20.0	32.1	6.2	58.9	14.4
Queue Length 50th (ft)	374	175	207	16	70	148
Queue Length 95th (ft)	444	242	290	56	115	276
Internal Link Dist (ft)	650		465			780
Turn Bay Length (ft)		590			250	
Base Capacity (vph)	721	802	1155	726	367	1058
Starvation Cap Reductn	0	0	18	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.65	0.78	0.42	0.26	0.53
Intersection Summary						

Queues
 Int.10: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	11	291	18	836	499	488
v/c Ratio	0.15	0.05	0.75	0.17	0.72	0.90	0.41
Control Delay	56.3	0.4	51.9	46.0	27.0	48.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	0.4	51.9	46.0	27.0	48.0	6.2
Queue Length 50th (ft)	13	0	191	13	127	291	69
Queue Length 95th (ft)	35	0	258	m18	m202	#531	176
Internal Link Dist (ft)	367		575		1453		1754
Turn Bay Length (ft)		25		125		325	
Base Capacity (vph)	283	348	392	105	1162	561	1190
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.03	0.74	0.17	0.72	0.89	0.41

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.

Queues

Int.2: Moreno Beach Dr & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	577	535	973	308	88	546
v/c Ratio	0.89	0.70	0.80	0.42	0.27	0.52
Control Delay	49.5	19.1	38.9	8.0	53.2	11.2
Queue Delay	0.0	0.0	0.3	0.0	0.0	0.0
Total Delay	49.5	19.1	39.2	8.0	53.2	11.2
Queue Length 50th (ft)	395	165	326	45	57	140
Queue Length 95th (ft)	#607	304	420	m96	111	183
Internal Link Dist (ft)	650		465			780
Turn Bay Length (ft)		590			250	
Base Capacity (vph)	692	793	1215	742	328	1048
Starvation Cap Reductn	0	0	35	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.67	0.82	0.42	0.27	0.52

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.

Queues
Int.10: Redlands Blvd & SR-60 WB Ramps



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	3	146	4	1191	455	524
v/c Ratio	0.14	0.01	0.61	0.04	0.63	1.04	0.35
Control Delay	56.2	0.0	25.3	56.5	24.1	95.8	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	0.0	25.3	56.5	24.1	95.8	10.5
Queue Length 50th (ft)	12	0	21	3	293	~372	134
Queue Length 95th (ft)	35	0	84	m5	m449	#582	401
Internal Link Dist (ft)	367		575		1453		1754
Turn Bay Length (ft)		25		125		325	
Base Capacity (vph)	285	348	370	105	1902	436	1517
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.01	0.39	0.04	0.63	1.04	0.35

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.

APPENDIX F: VMT WORKSHEETS

MVTC
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,400.00	1000sqft	32.14	1,400,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2022

2.0 Emissions Summary

	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	1.8269	6.1311	22.0438	0.0815	5.7764	0.1232	5.8997	1.5435	0.1136	1.6571	0.0000	5,599.5038	5,599.5038	0.1531	0.0000	5,602.7191
Unmitigated	1.8410	6.2409	22.3722	0.0832	5.8943	0.1256	6.0200	1.5750	0.1158	1.6908	0.0000	5,711.2369	5,711.2369	0.1560	0.0000	5,714.5133

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	3,626.00	3,626.00	3,626.00	15,540,009	15,229,209
Total	3,626.00	3,626.00	3,626.00	15,540,009	15,229,209

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455053	0.068720	0.179384	0.173358	0.046633	0.007435	0.012315	0.044769	0.000875	0.001066	0.006136	0.000807	0.003449

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy