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PERRIS GATEWAY (DPR22-00028; CUP 22-05259; TPM 38567)

TRAFFIC ANALYSIS

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Reference Number	Agency	Date
15495-07 TA Report	City of Perris	November 8, 2023

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
EAC	Existing plus Ambient plus Cumulative
EAPC	Existing plus Ambient plus Project plus Cumulative
HCM	Highway Capacity Manual
HQTA	High Quality Transit Area
ITE	Institute of Transportation Engineers
LOS	Level of Service
OPR	Governor's Office of Planning and Research
PHF	Peak Hour Factor
Project	Perris Gateway
PVCC	Perris Valley Commerce Center
RCTC	Riverside County Transportation Commission
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAG	Southern California Association of Governments
TA	Traffic Analysis
TAZ	Traffic Analysis Zone
TPA	Transit Priority Area
TUMF	Transportation Uniform Mitigation Fee
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane
WRCOG	Western Riverside Council of Governments

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1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for Perris Gateway ("Project"), which is located north of Ramona Expressway, between the I-215 Freeway and Webster Avenue in the City of Perris, as shown on Exhibit 1-1. The Project is located within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCC SP). The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and where necessary recommend improvements to achieve acceptable operations consistent with General Plan level of service goals and policies. This traffic study has been prepared in accordance with the City of Perris' Transportation Impact Analysis Guidelines for CEQA (California Environmental Quality Act) (May 2020), and consultation with City of Perris staff during the traffic study scoping process. (1) The Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

1.1 SUMMARY OF FINDINGS

The Project is to construct the following improvements as design features in conjunction with development of the site:

- Driveway 1 on Ramona Expressway – signalized access to align with Nevada Avenue
- Driveway 2 on Ramona Expressway – right-in/right-out access driveway
- Driveway 3 on Ramona Expressway – signalized full access assumed to align with future development on the South of Ramona Expressway
- Driveway 4 on Ramona Expressway – right-in/right-out access driveway
- Driveway 5 on Webster Avenue – full access driveway
- Driveway 6 on Webster Avenue – right-in/right-out access driveway
- Project to construct Ramona Expressway at its ultimate half-section as an Expressway (184-foot right-of-way, 134-foot curb-to-curb) between Nevada Street and Webster Avenue consistent with the PVCC SP and the City of Perris General Plan Circulation Element.

Additional details and intersection lane geometrics are provided in Section 1.6 *Recommendations* of this report. The proposed Project is not anticipated to require the construction of any off-site improvements. However, the Project Applicant's responsibility for the Project's contributions towards deficient off-site intersections is fulfilled through fair share contribution or payment into pre-existing fee programs (if applicable) that would be assigned to the future construction of any future local/regional improvement needs. The Project Applicant would be required to pay requisite fees consistent with the City's requirements (see Section 7 *Local and Regional Funding Mechanisms*).

EXHIBIT 1-1: LOCATION MAP



1.2 PROJECT OVERVIEW

A preliminary site plan for the proposed Project is shown on Exhibit 1-2. The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. The Project is anticipated to be constructed in one phase by the year 2026. As indicated on Exhibit 1-2, vehicular access will be provided via the following driveways:

- Driveway 1 on Ramona Expressway – signalized access to align with Nevada Avenue
- Driveway 2 on Ramona Expressway – right-in/right-out access driveway
- Driveway 3 on Ramona Expressway – signalized full access assumed to align with future development on the South of Ramona Expressway
- Driveway 4 on Ramona Expressway – right-in/right-out access driveway
- Driveway 5 on Webster Avenue – full access driveway
- Driveway 6 on Webster Avenue – right-in/right-out access driveway

Regional access to the Project site is accommodated from the I-215 Freeway via Ramona Expressway Avenue. In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). (2) Project is anticipated to generate 14,394 two-way trips per day with 747 AM peak hour trips and 590 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2023) Conditions
- Existing plus Project (E+P) Conditions
- Existing Plus Ambient Growth Plus Cumulative (E+A+C) (2026)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (E+A+P+C) (2026)

1.3.1 EXISTING (2023) CONDITIONS

Information for Existing (2023) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Local schools were in session with in-person instruction at the time of the traffic counts. Traffic counts were conducted in May 2023 based on vehicle classification.

EXHIBIT 1-2: PRELIMINARY SITE PLAN



1.3.2 EXISING PLUS PROJECT CONDITIONS

The E+P conditions analysis determines the potential circulation system deficiencies based on a comparison of the E+P traffic conditions to Existing conditions. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project. Cumulative development projects and ambient growth are not included for E+P traffic conditions.

1.3.3 EAC & EAPC (2026) CONDITIONS

The EAC and EAPC (2026) traffic conditions analysis determines the potential near-term cumulative circulation system deficiencies. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project under EAPC conditions. To account for background traffic growth, an ambient growth factor from Existing (2023) conditions of 9.27% is included (3.0% compounded annually over 3 years) for both EAC and EAPC (2026) traffic conditions.

Conservatively, this TA estimates the area ambient traffic growth and then adds traffic generated by other known or probable related projects. These related projects are at least in part already accounted for in the assumed ambient growth rates; and some of these related projects may not be implemented and operational within the 2026 Opening Year time frame assumed for the Project. The resulting traffic growth utilized in this traffic study (ambient growth factor plus traffic generated by related projects) would therefore tend to overstate rather than understate background cumulative traffic deficiencies under 2026 conditions.

1.4 STUDY AREA

To ensure that this TA satisfies the City of Perris' traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by City of Perris staff prior to the preparation of this report. This agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The scoping agreement is included in Appendix 1.1 of this TA.

The 13 study area intersections shown on Exhibit 1-3 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with City of Perris staff. At a minimum, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the County's traffic study guidelines. (1) The "50 peak hour trip" criterion represents a minimum number of trips at which a typical intersection would have the potential to be affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within Riverside County (including the City of Perris) for estimating a potential area of influence (i.e., study area).

The intent of a Congestion Management Project (CMP) is to more link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and most recently updated in 2019 as part of the Riverside County Long Range Transportation Study. The Riverside County Transportation Commission (RCTC) adopted the 2019 CMP for the County of Riverside in December 2019. (3) There are no study area intersections identified as a Riverside County CMP intersection.

EXHIBIT 1-3: STUDY AREA

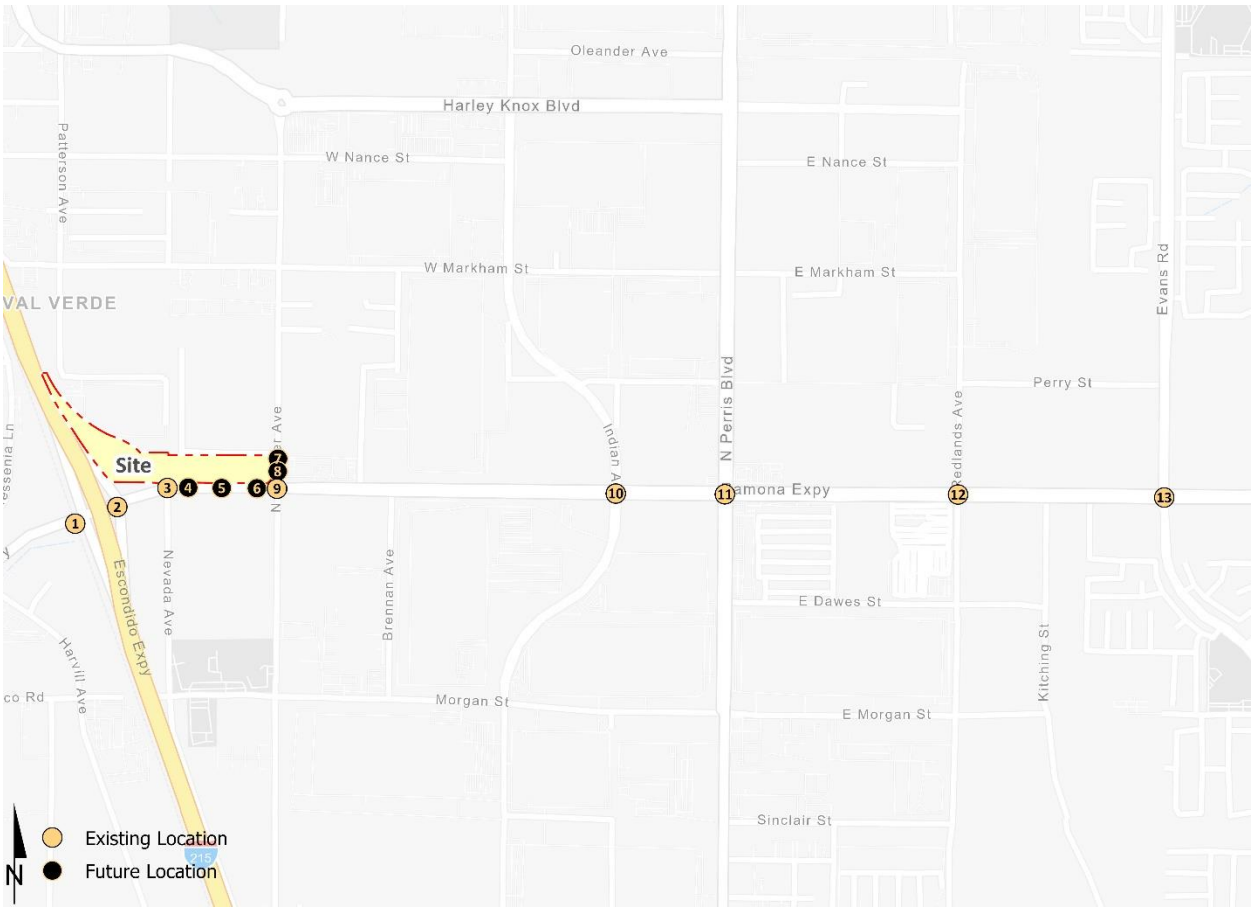


TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	Jursidiction
1	I-215 SB Ramps & Ramona Exwy.	Caltrans, County of Riverside
2	I-215 NB Ramps & Ramona Exwy.	Caltrans, County of Riverside
3	Driveway 1/Nevada Rd. & Ramona Exwy.	County of Riverside, City of Perris
4	Driveway 2 & Ramona Exwy.	City of Perris
5	Driveway 3 & Ramona Exwy.	City of Perris
6	Driveway 4 & Ramona Exwy.	City of Perris
7	Webster Av. & Driveway 5	City of Perris
8	Webster Av. & Driveway 6	City of Perris
9	Webster Av. & Ramona Exwy.	City of Perris
10	Indian Av. & Ramona Exwy.	City of Perris
11	Perris Bl. & Ramona Exwy.	City of Perris
12	Redlands Av. & Ramona Exwy.	City of Perris
13	Evans Rd. & Ramona Exwy.	City of Perris

1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 3 *Area Conditions*, Section 5 *E+P Traffic Conditions,* and Section 6 *EAC & EAPC (2026) Traffic Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Table 1-2.

1.5.1 EXISTING (2023) CONDITIONS

Intersections

The study area intersections are currently operating at an acceptable LOS during the peak hours.

Queues

There are no movements that currently experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Existing (2023) traffic conditions.

The following movements are currently experiencing turn-pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Existing (2023) traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM peak hour only
- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) southbound right-turn – AM peak hour only

TABLE 1-2: SUMMARY OF LOS

#	Intersection	Existing AM	Existing PM	E+P AM	E+P PM	EAC (2026) AM	EAC (2026) PM	EAPC (2026) AM	EAPC (2026) PM
1	I-215 SB Ramps & Ramona Exwy.								
2	I-215 NB Ramps & Ramona Exwy.								
3	Driveway 1/Nevada Rd. & Ramona Exwy.								
4	Driveway 2 & Ramona Exwy.	N/A	N/A			N/A	N/A		
5	Driveway 3 & Ramona Exwy.	N/A	N/A						
6	Driveway 4 & Ramona Exwy.	N/A	N/A			N/A	N/A		
7	Webster Av. & Driveway 5	N/A	N/A			N/A	N/A		
8	Webster Av. & Driveway 6	N/A	N/A			N/A	N/A		
9	Webster Av. & Ramona Exwy.								
10	Indian Av. & Ramona Exwy.								
11	Perris Bl. & Ramona Exwy.								
12	Redlands Av. & Ramona Exwy.								
13	Evans Rd. & Ramona Exwy.								

= A - D = E = F

1.5.2 E+P CONDITIONS

Intersections

The study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours with the addition of Project traffic under E+P traffic conditions.

Queues

There are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic for E+P traffic conditions.

The following additional movements are anticipated to experience turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic, in addition to the movements previously identified under Existing Conditions:

- Nevada Road & Ramona Expressway (#3) eastbound left-turn – AM and PM peak hours
- Evans Road & Ramona Expressway (#13) northbound left -turn – AM peak hour only

1.5.3 EAC & EAPC (2026) CONDITIONS

Intersections

The following study area intersections are anticipated to operate at an unacceptable LOS under EAC (2026) Without Project traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) – LOS E AM and PM peak hours
- Nevada Road & Ramona Expressway (#3) – LOS F AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) – LOS E PM peak hour only
- Perris Boulevard & Ramona Expressway (#11) – LOS E AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) – LOS F AM and PM peak hours
- Evans Road & Ramona Expressway (#13) – LOS F AM peak hour; LOS E PM peak hour

The addition of Project traffic is not anticipated to result in any additional deficiencies. It should be noted that the Project design feature to construct a traffic signal at Nevada Road/Driveway 1 & Ramona Expressway (#3) is anticipated to improve the intersection back to an acceptable LOS.

Queues

There are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAC and EAPC (2026) traffic conditions.

The following movements are anticipated to experience turn-pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAC (2026) traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) eastbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM and PM peak hours
- Webster Avenue & Ramona Expressway (#9) eastbound left turn lane – AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) southbound left-turn – PM peak hour only
- Indian Avenue & Ramona Expressway (#10) eastbound left-turn – AM and PM peak hours
- Perris Boulevard & Ramona Expressway (#11) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) westbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) northbound left-turn – AM peak hour only
- Evans Road & Ramona Expressway (#13) southbound right-turn – AM and PM peak hours

With the addition of Project traffic, the following movements are anticipated to experience queuing issues under EAPC (2026) traffic conditions:

- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours

1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the minimum improvements needed to accommodate site access and maintain acceptable peak hour operations for the proposed Project. The site adjacent recommendations are shown on Exhibit 1-4.

Recommendation 1 – Nevada Avenue/Driveway 1 & Ramona Expressway (#3) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a southbound left turn lane and southbound shared through-right turn lane.
- Project to construct a westbound right-turn trap-lane. As part of the Project's frontage improvements along Ramona Expressway, a 3rd westbound through lane could be accommodated in the future with the construction of an additional receiving lane along Ramona Expressway, west of Nevada Avenue/Driveway 1. Until such time widening to the west occurs, the pavement along the Project's frontage on Ramona Expressway can be utilized as a trap right turn lane.
- Project to modify the existing eastbound left turn lane to provide a minimum of 300-feet of storage.

Recommendation 2 – Driveway 2 & Ramona Expressway (#4) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the southbound approach and a right turn lane. The driveway should be restricted to right-in/right-out access only.
- Project to construct a westbound shared through-right turn lane.

Recommendation 3 – Driveway 3 & Ramona Expressway (#5) – The following improvements are necessary to accommodate site access:

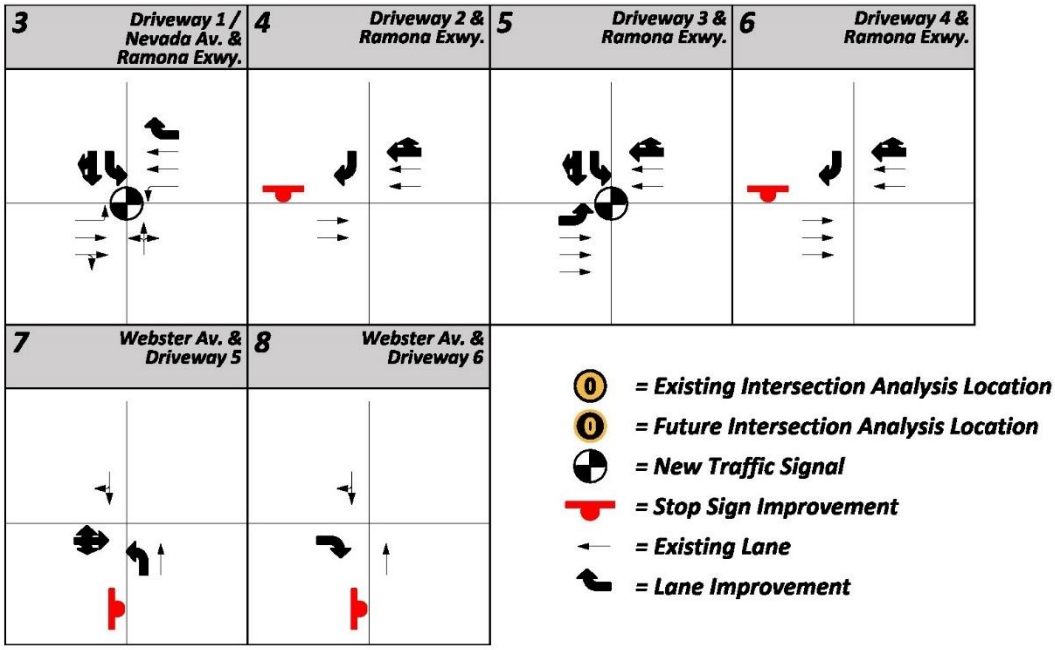
- Project to install a traffic signal. The driveway should align with the future development on the South of Ramona Expressway.
- Project to construct a southbound left turn lane and southbound shared through-right turn lane.
- Project to construct a westbound shared through-right turn lane.
- Project to construct an eastbound left turn lane with a minimum of 225-feet of storage.

Recommendation 4 – Driveway 4 & Ramona Expressway (#6) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the southbound approach and a right turn lane. The driveway should be restricted to right-in/right-out access only.
- Project to construct a westbound shared through-right turn lane.

EXHIBIT 1-4: SITE ACCESS RECOMMENDATIONS





Recommendation 5 – Webster Avenue & Driveway 5 (#7) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the eastbound approach. The driveway should allow for full-access movement, and construct an eastbound shared left-through-right turn lane.
- Project to construct a northbound left turn lane with a minimum of 100-feet of storage.

Recommendation 6 – Webster Avenue & Driveway 6 (#8) – The following improvement is necessary to accommodate site access:

- Project to install a stop control on the eastbound approach and a right turn lane. The driveway should be restricted to right-in/right-out access only.

Recommendation 7 – Ramona Expressway is an east-west oriented roadway located on the Project's southern boundary. Project to construct Ramona Expressway at its ultimate half-section width as an Expressway (6-8 lanes, 184-foot right-of-way) from Nevada Avenue to Webster Avenue, consistent with the City's Standards. The outermost westbound lane on Ramona Expressway, at Nevada Avenue, should be striped as a right-turn trap lane, until such time in the future when additional receiving lanes on Ramona Expressway are provided, west of Nevada Avenue.

Recommendation 8 – Webster Avenue is a north-south oriented roadway located on the Project's eastern boundary. According to the City of Perris General Plan, Webster Avenue is currently built out to its ultimate half-section as a Secondary Arterial (94-foot right-of-way). As such, there are no roadway improvement recommendations. However, curb, gutter, and sidewalk improvements are recommended along Webster Avenue, as needed to accommodate the proposed Project driveways.

On-site traffic signing and striping should be implemented agreeable with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard California Department of Transportation (Caltrans) and City of Perris sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

1.6.2 OFF-SITE RECOMMENDATIONS

A summary of the off-site intersection improvements is provided in Table 1-3. As shown in Table 1-3, the Project will construct or contribute payment towards the improvements identified, as discussed in Section 1.6.1 *Site Adjacent and Site Access Recommendations*. For those improvements listed in Table 1-3 and not constructed as part of the Project, the Project Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fair share or payment of fees (if applicable) that would be assigned to construction of the identified recommended improvements. The Project Applicant would be required to pay fair share fees and participate in pre-existing fee programs consistent with the City's requirements (see Section 7 *Local and Regional Funding Mechanisms*).

TABLE 1-3: SUMMARY OF IMPROVEMENTS

#	Intersection Location	Jurisdiction	Analysis Scenario: Existing	Analysis Scenario: E+P	Analysis Scenario: EAC (2026)	Analysis Scenario: EAPC (2026)	Project Responsibility	Improvements in DIF[1,2]	Project Fair Share
1	I-215 SB Ramps & Ramona Exwy.	County of Riverside, Perris, Caltrans	None	None	Add 3rd EB through lane	Same	Fees	Yes (TUMF)	12.1%
					Add EB right turn lane	Same	Fair Share	No	
					Add 2nd WB left turn lane	Same	Fees	Yes (TUMF)	
					Add 3rd WB through lane	Same	Fees	Yes (TUMF)	
2	I-215 NB Ramps & Ramona Exwy.	County of Riverside, Perris, Caltrans	None	None	Add 2nd EB left turn lane	Same	Fees	Yes (TUMF)	18.0%
					Add 3rd EB through lane	Same	Fees	Yes (TUMF)	
					Add 3rd WB through lane	Same	Fees	Yes (TUMF)	
					Add WB free-right turn lane	Same	Fair Share	No	
10	Indian Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane	Same	Fair Share	No	11.9%
					Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same	Fair Share	No	
11	Perris Bl. & Ramona Exwy.	Perris	None	None	Restripe the NB approach to provide two left turn lanes, two through lanes, and one shared-through right turn lane	Same	Fees	Yes (TUMF)	8.1%
					Restripe the SB approach to provide two left turn lanes, two through lanes, and one shared-through right turn lane	Same	Fair Share	No	
12	Redlands Av. & Ramona Exwy.	Perris	None	None	Add 2nd SB left turn lane	Same	Fair Share	No	4.5%
					Add 4th EB through lane	Same	Fair Share	No	
					Add 4th WB through lane	Same	Fair Share	No	
							Fair Share	No	
							Fair Share	No	
							Fair Share	No	
13	Evans Rd. & Ramona Exwy.	Perris	None	None	Add 3rd WB through lane	Same	Fair Share	No	4.1%

[1] Improvements included in regional/City DIF programs have been identified as such.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at the discretion of the City.

1.6.3 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS

A queuing analysis was conducted at the study area intersections for EAPC (2026) traffic conditions to determine the turn pocket lengths necessary to accommodate 95th percentile queues. The analysis was conducted for the weekday AM and weekday PM peak hours. The results have been provided in Appendix 1.2.

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). Many agencies utilize the 95th percentile queues for design purposes. A vehicle is considered queued whenever it is traveling at less than 10 feet/second. The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn movement. A SimTraffic simulation has been recorded five (5) times, during the weekday AM and weekday PM peak hours, and has been seeded for 30-minute periods with 60-minute recording intervals.

The minimum stacking distance required, based on the anticipated 95th percentile queues, is shown in Table 1-4. The highest queue length during either the AM or PM peak hour is shown in bold.

TABLE 1-4: PROJECT DRIVEWAY PEAK HOUR QUEUING SUMMARY

Intersection	Turn-Pocket Movement	95th Percentile Queue (Feet)	
		AM Peak Hour	PM Peak Hour
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	283	275
Driveway 3 & Ramona Exwy.	EBL	211	197
Webster Av. & Driveway 5	NBL	26	19

1.7 ON-SITE AND SITE ADJACENT CIRCULATION

1.7.1 CONCEPT STRIPING

Concept striping exhibits have been prepared for the Project to show the proposed turn lanes, striping, and turn pocket lengths, consistent with the site recommendations previously discussed under Section 1.6.1 *Site Adjacent and Site Access Recommendations*. The concept striping plan is provided on Exhibit 1-5.

EXHIBIT 1-5: CONCEPT STRIPING PLAN (PAGE 1 OF 2)

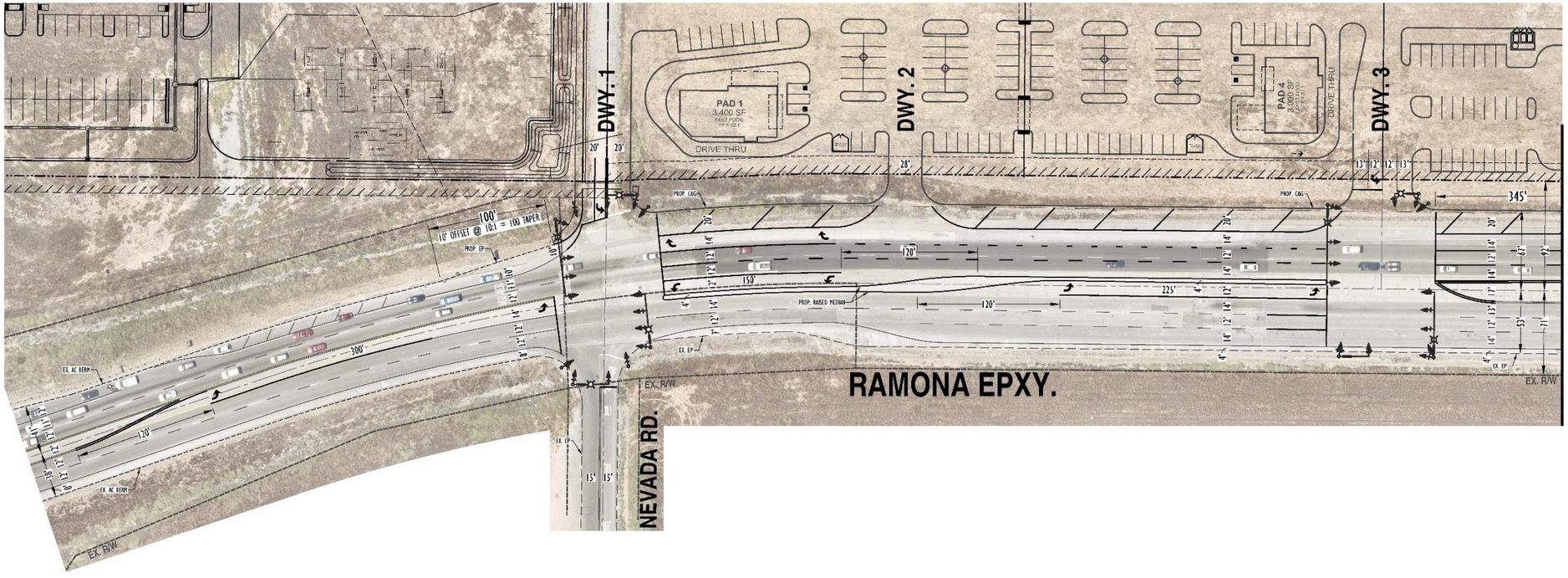
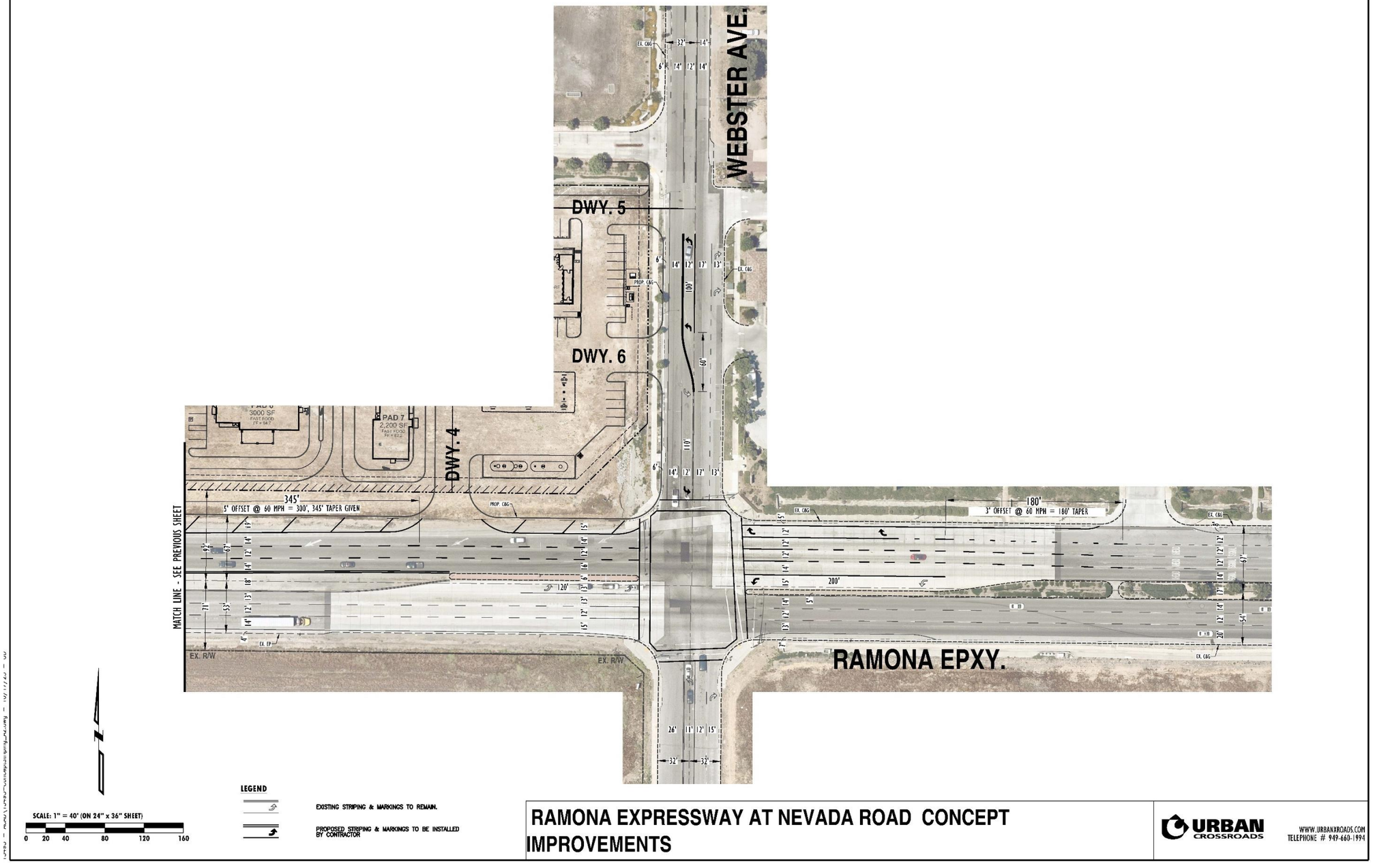


EXHIBIT 1-5: CONCEPT STRIPING PLAN (PAGE 2 OF 2)



1.7.1 TURNING TEMPLATES AND INTERNAL CIRCULATION

At the request of the City of Perris, various vehicle turning templates have been evaluated to ensure vehicles can adequately navigate. The vehicle turning templates are provided on the following exhibits:

- Exhibit 1-6: Fire Truck
- Exhibit 1-7: Passenger Car
- Exhibit 1-8: Garbage Truck
- Exhibit 1-9: Standard Delivery Truck (SU-40 Truck)

The on-site traffic flows are provided on Exhibit 1-10, which show the proposed circulation throughout the site.

1.8 VEHICLE MILES TRAVELED (VMT)

1.8.1 BACKGROUND

Changes to the Guidelines for Implementation of CEQA were adopted in December 2018, which requires all lead agencies to adopt VMT as a replacement for automobile delay-based level of service as the new measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) (Technical Advisory). Based on OPR's Technical Advisory, the City of Perris adopted their Transportation Impact Analysis Guidelines for CEQA (May 2020) (City Guidelines). The adopted City Guidelines have been utilized to prepare the VMT analysis.

1.8.2 VMT SCREENING

Consistent with City Guidelines, a land use project's VMT impact is to perform an initial screening evaluation utilizing the City of Perris VMT Scoping Form for Land Use Projects (**Scoping Form**). The Scoping Form provides an easy-to-use tool for streamlining the VMT analysis process.

The City's Guidelines list standardized screening methods for project level VMT analysis that can be used to identify when a proposed land use development project is anticipated to result in a less than significant impact thereby eliminating the need to conduct additional VMT analysis. The City of Perris VMT screening methods are listed below, and a land use project need only to meet one of the screening criteria to result in a less than significant impact.:

- Affordable Housing
- High Quality Transit Areas (HQTA) Screening
- Local-Serving Land Use
- Low VMT Area
- Net Daily Trips Less than 500 ADT

EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 1 OF 5)

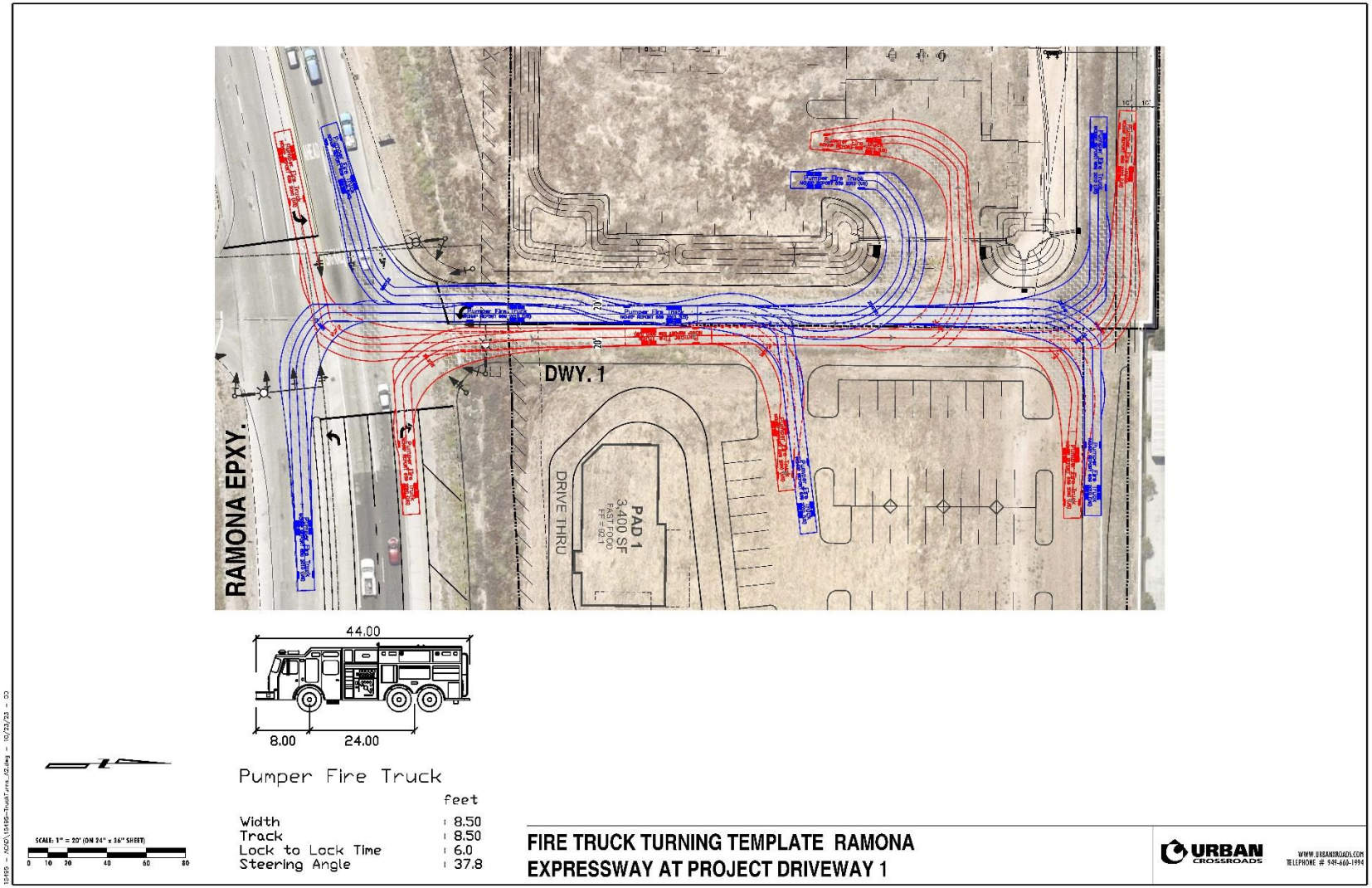


EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 2 OF 5)

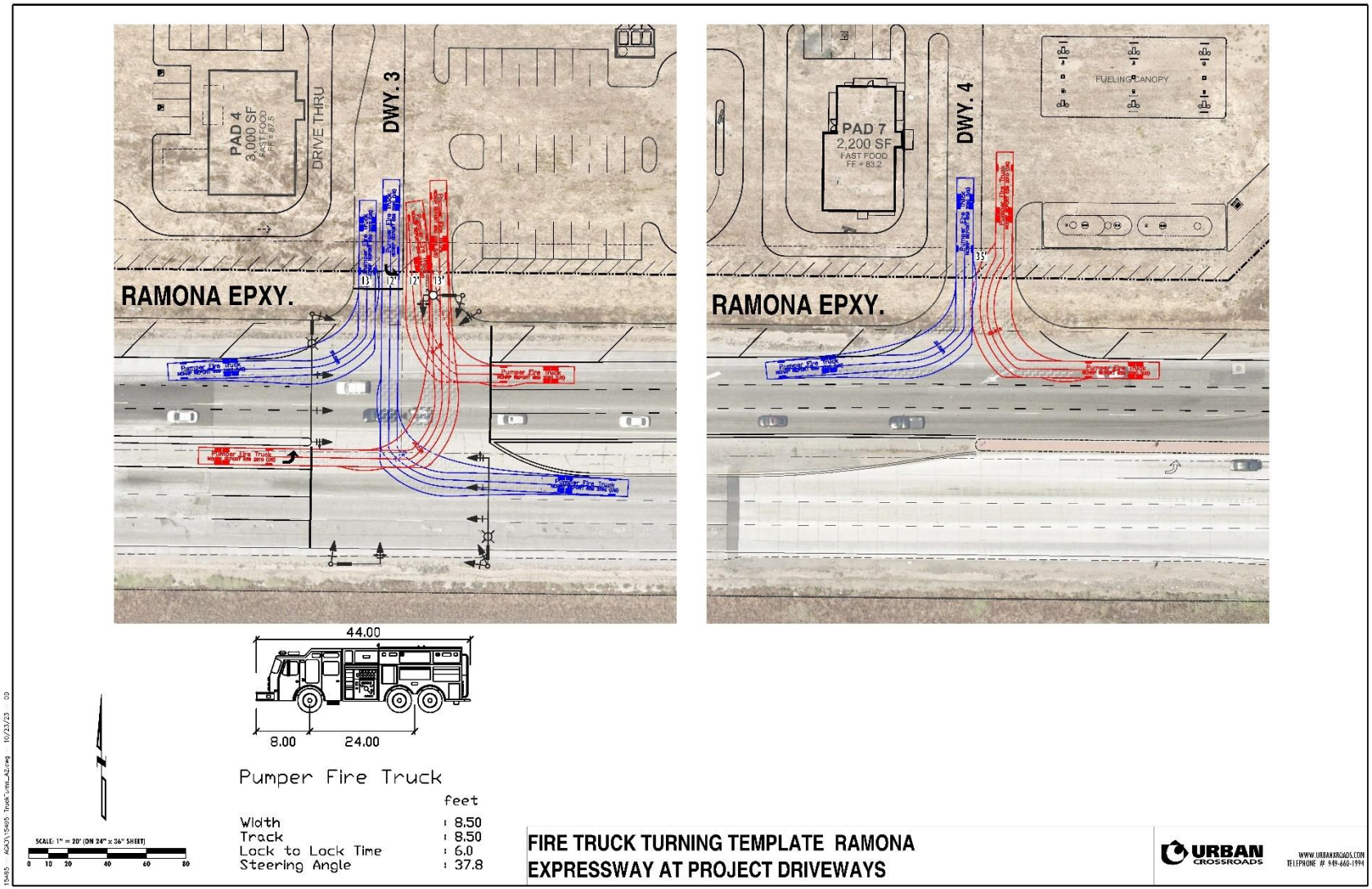


EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 3 OF 5)

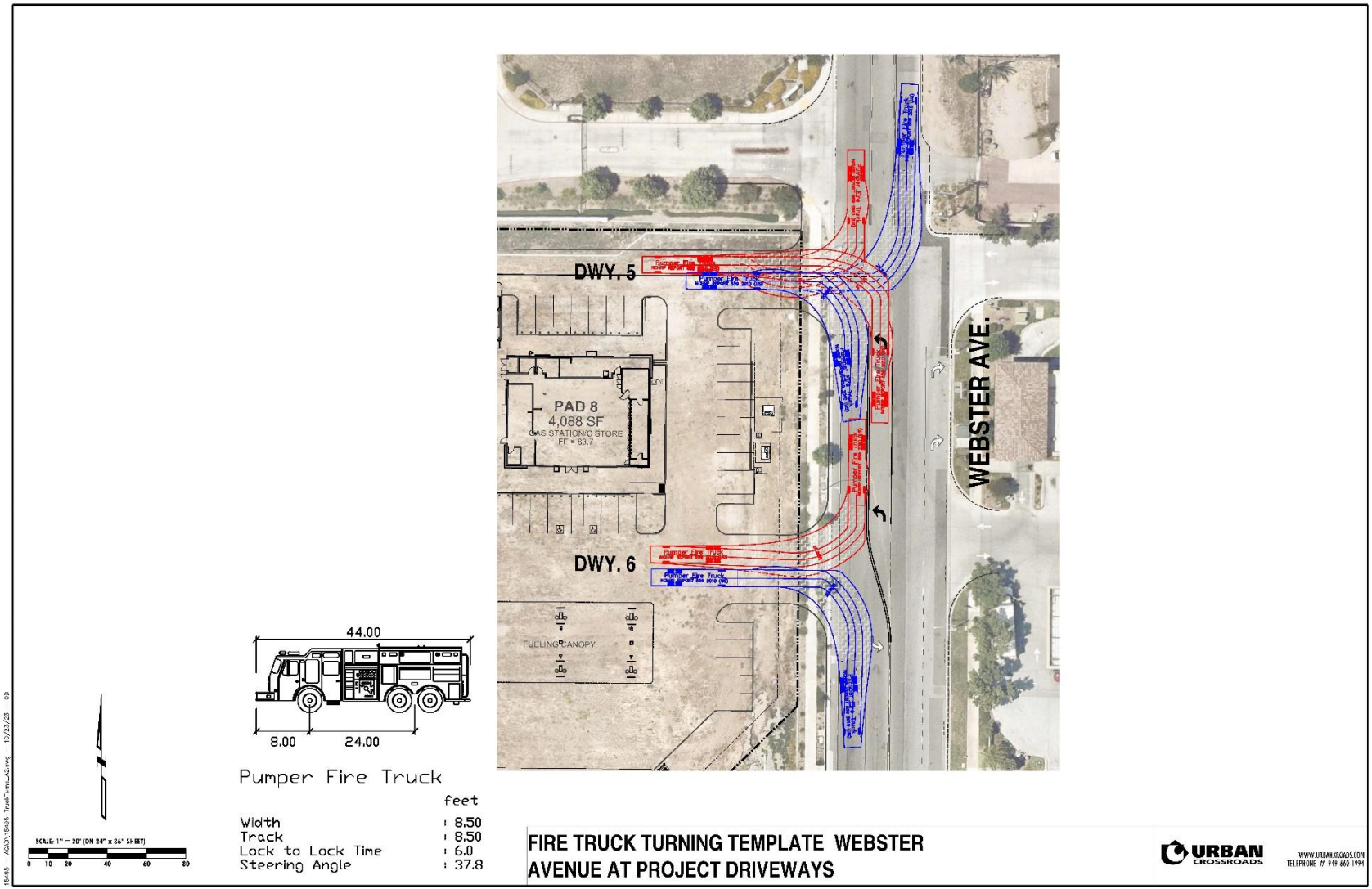


EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 4 OF 5)

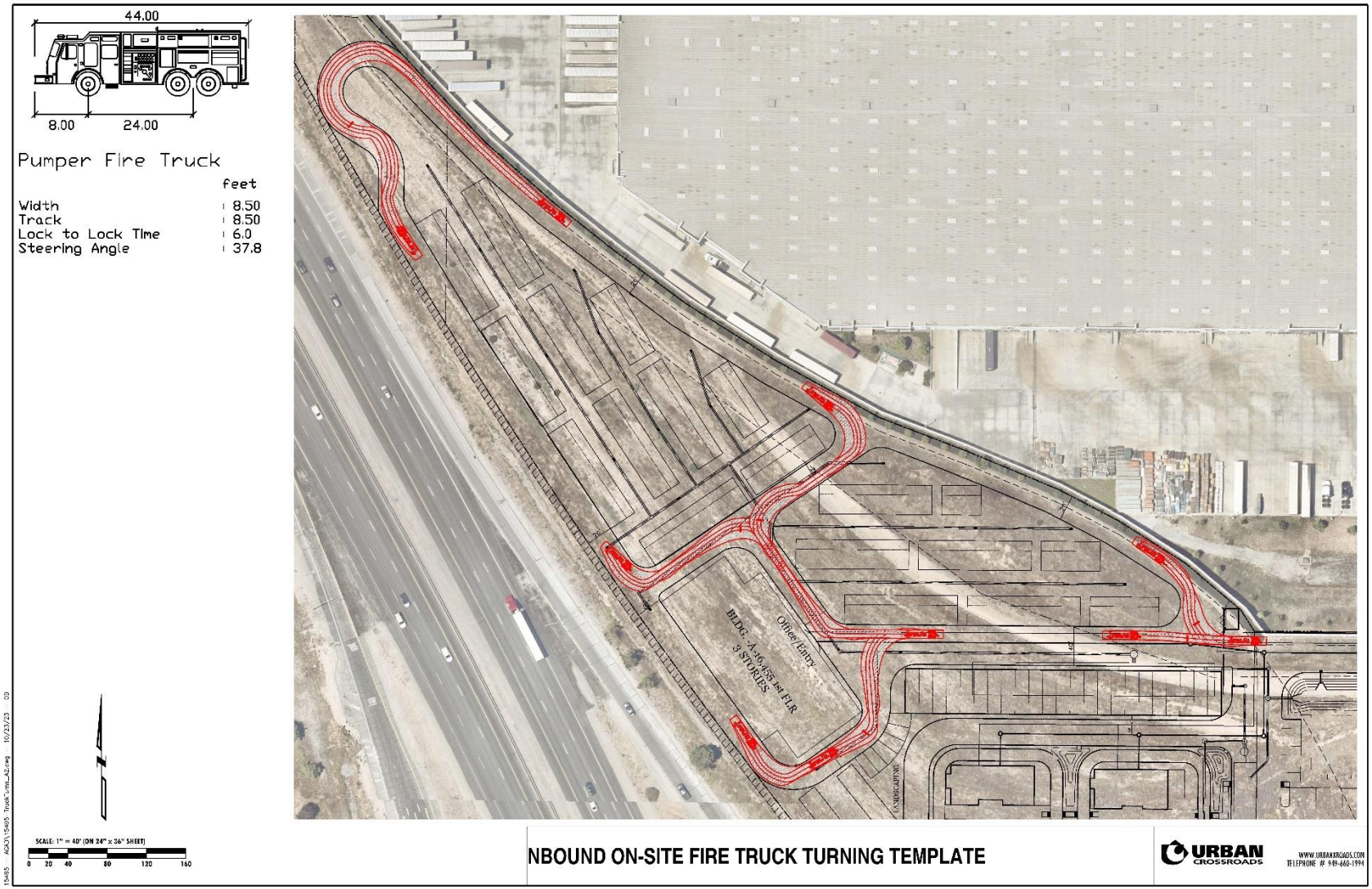


EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 5 OF 5)

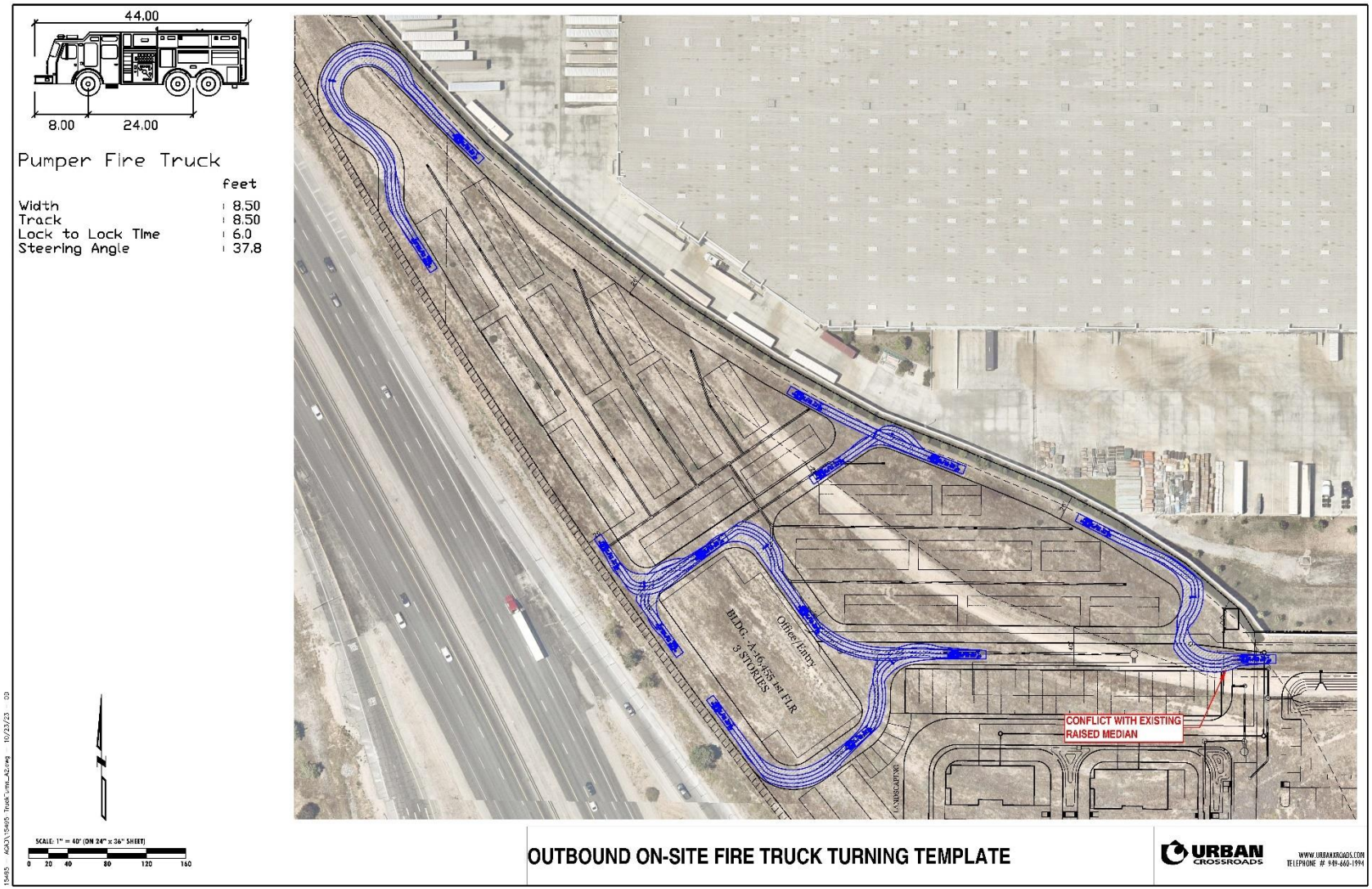


EXHIBIT 1-7: PASSENGER CAR TURNING TEMPLATE (PAGE 1 OF 3)

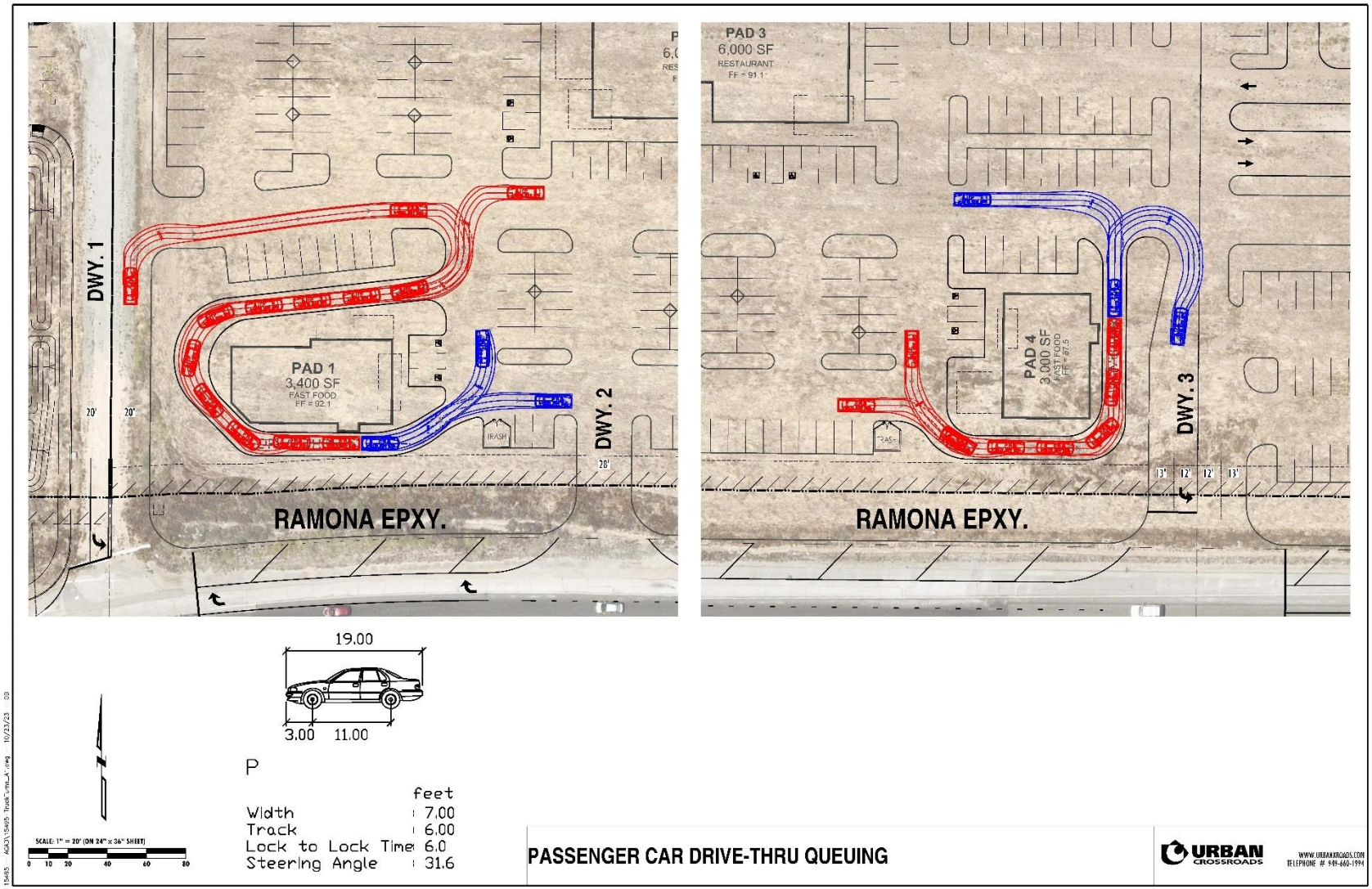


EXHIBIT 1-7: PASSENGER CAR TURNING TEMPLATE (PAGE 2 OF 3)

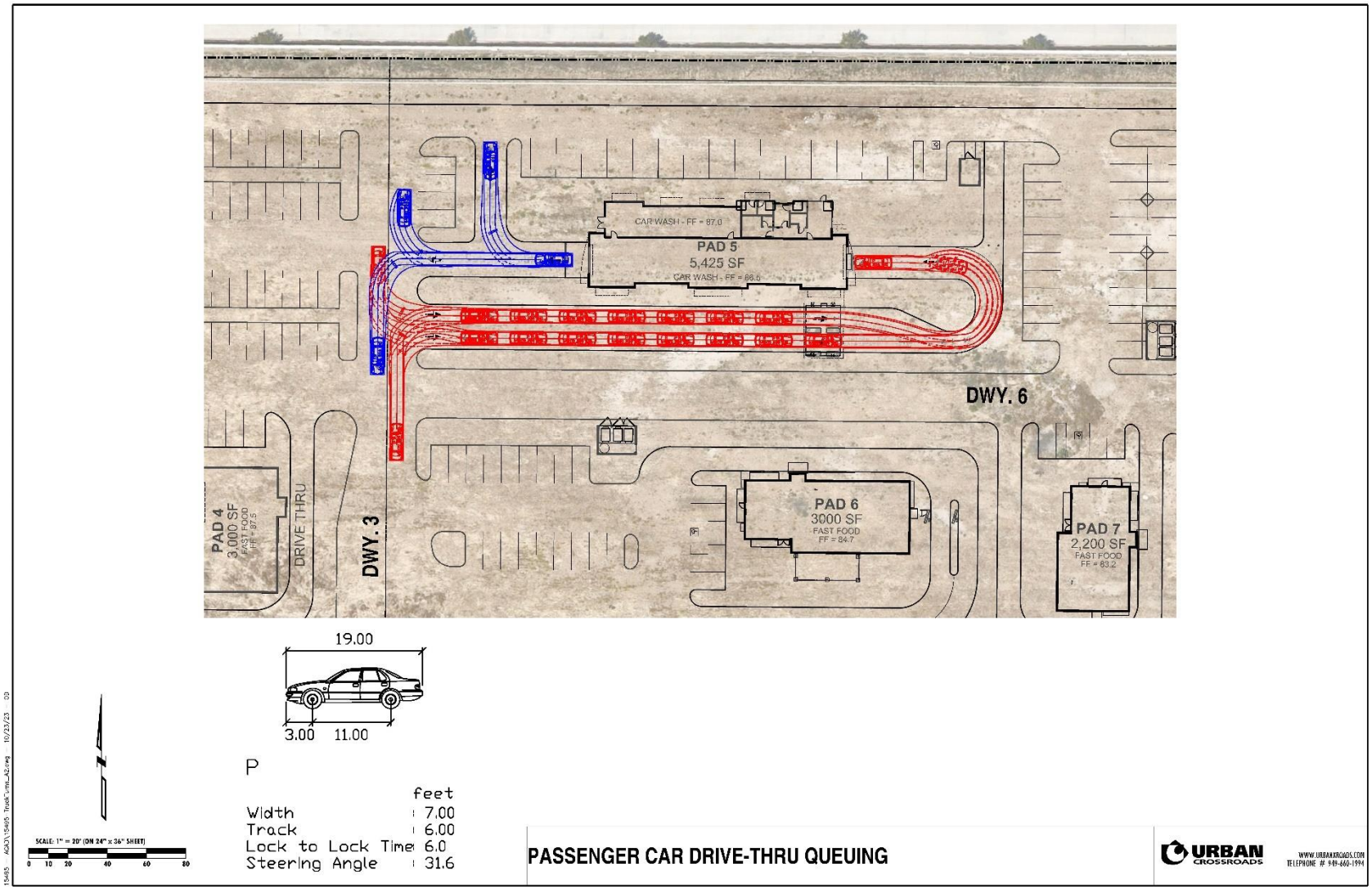


EXHIBIT 1-7: PASSENGER CAR TURNING TEMPLATE (PAGE 3 OF 3)

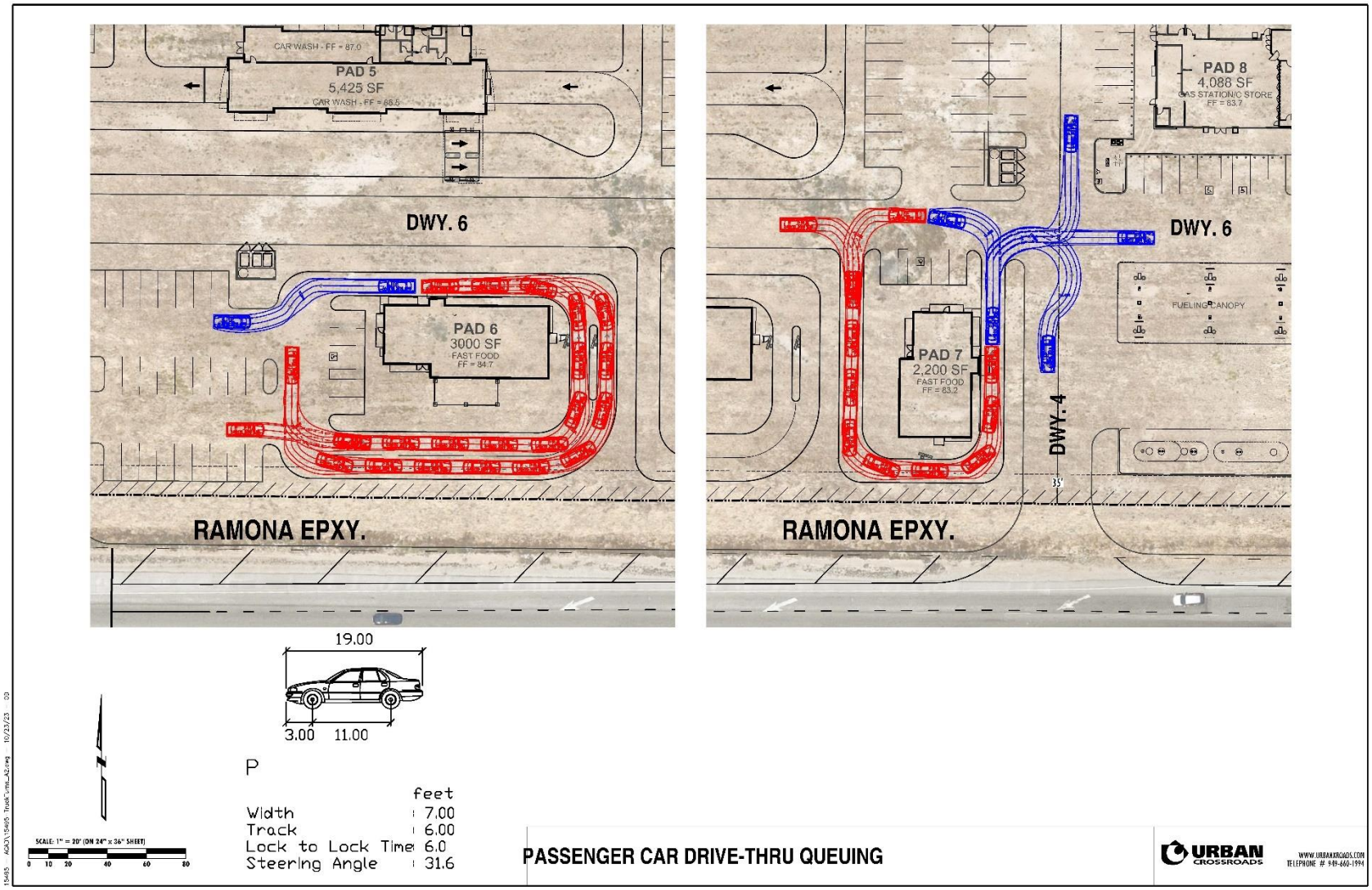


EXHIBIT 1-8: GARBAGE TRUCK TURNING TEMPLATE (PAGE 1 OF 3)

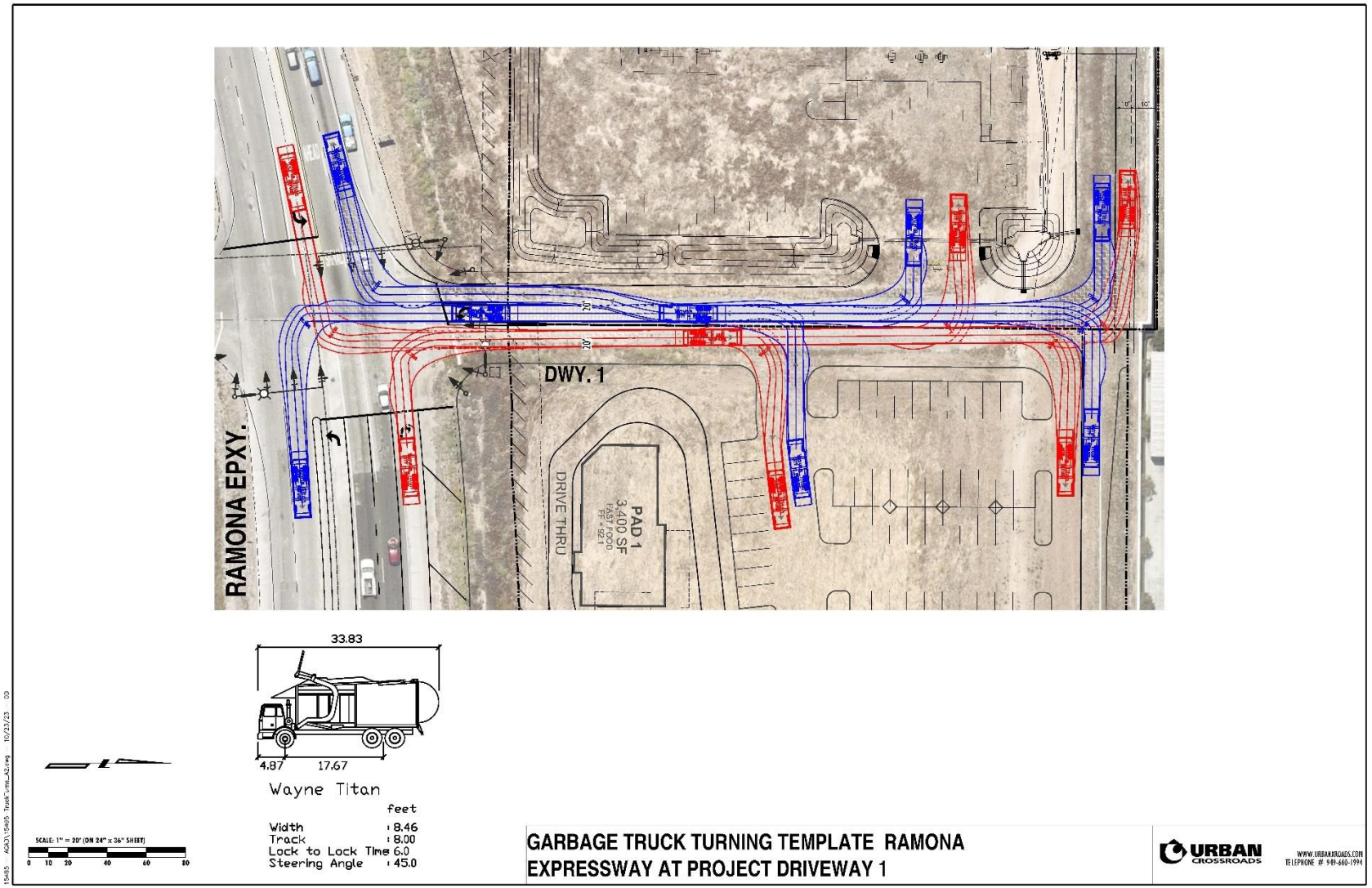


EXHIBIT 1-8: GARBAGE TRUCK TURNING TEMPLATE (PAGE 2 OF 3)

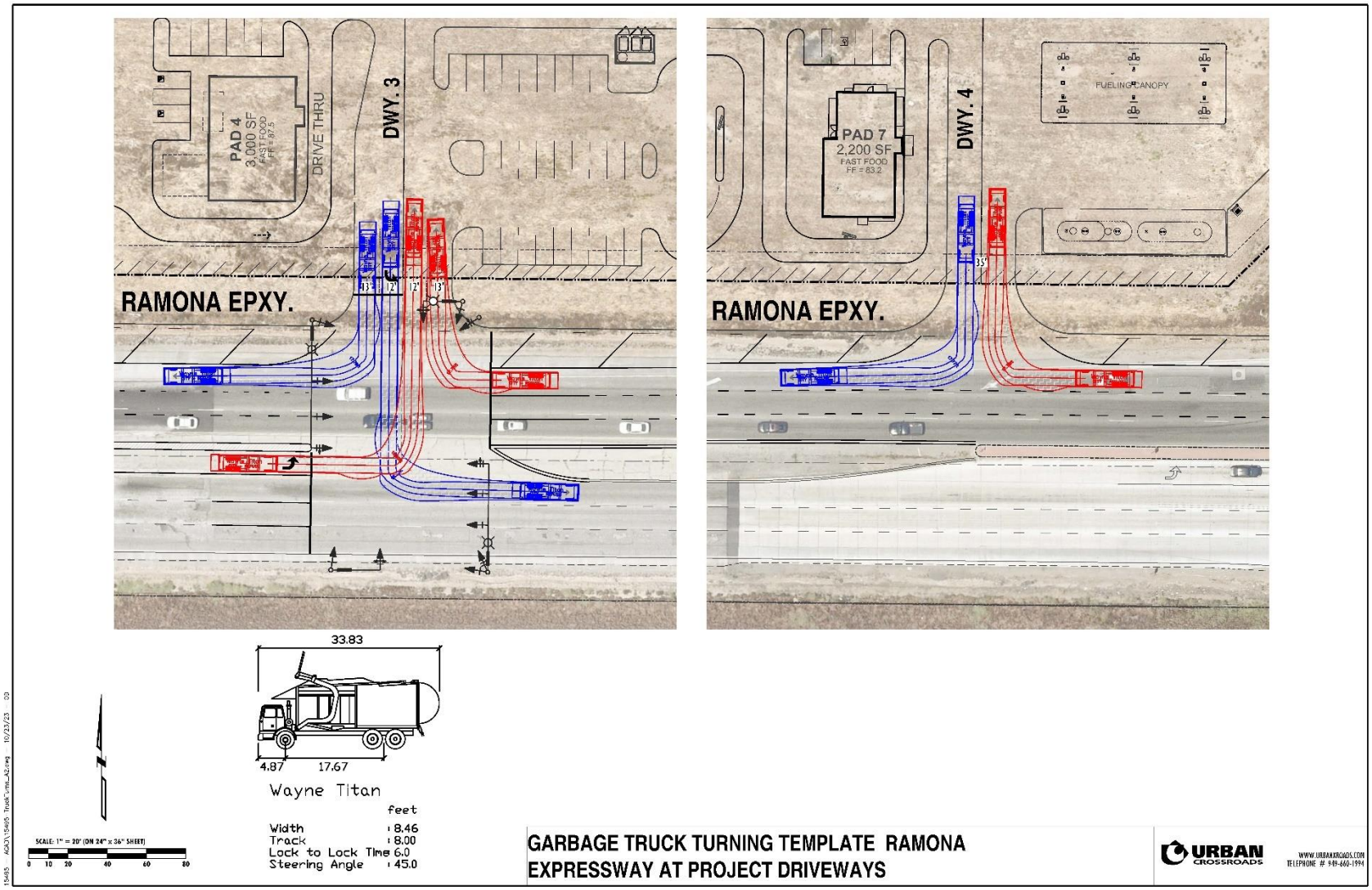


EXHIBIT 1-8: GARBAGE TRUCK TURNING TEMPLATE (PAGE 3 OF 3)

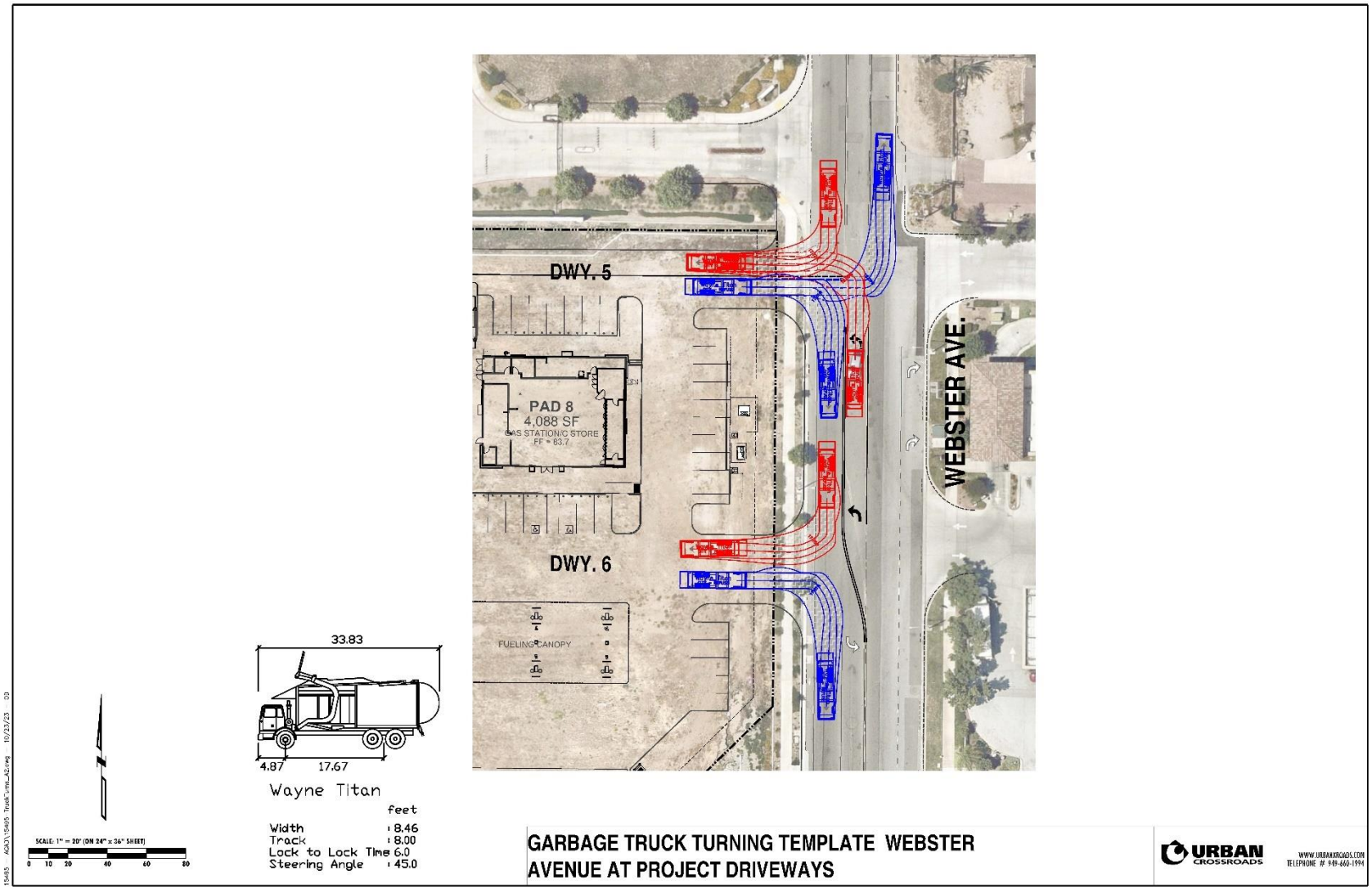


EXHIBIT 1-9: DELIVERY TRUCK TURNING TEMPLATE (PAGE 1 OF 3)

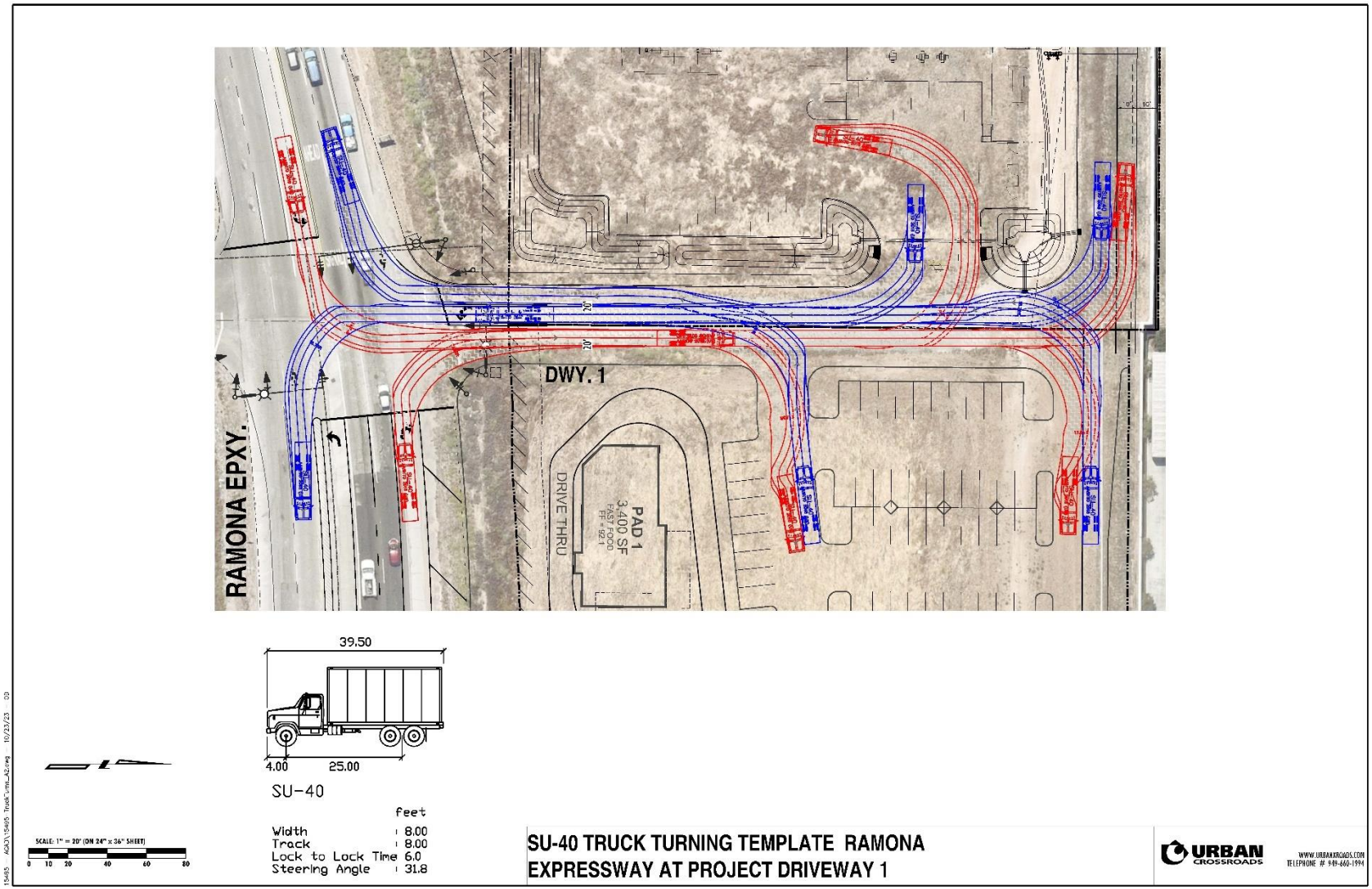


EXHIBIT 1-9: DELIVERY TRUCK TURNING TEMPLATE (PAGE 2 OF 3)

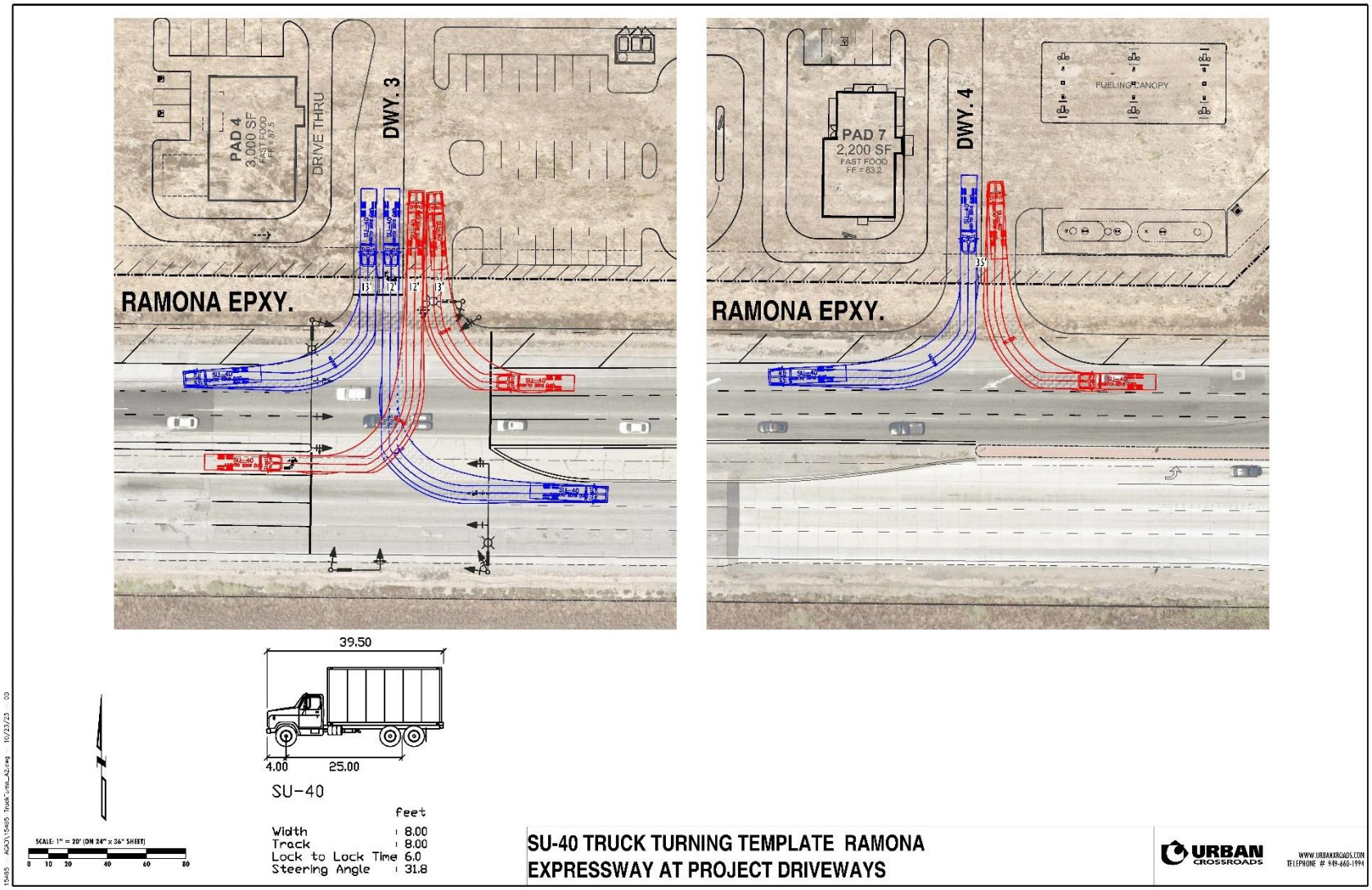


EXHIBIT 1-9: DELIVERY TRUCK TURNING TEMPLATE (PAGE 3 OF 3)

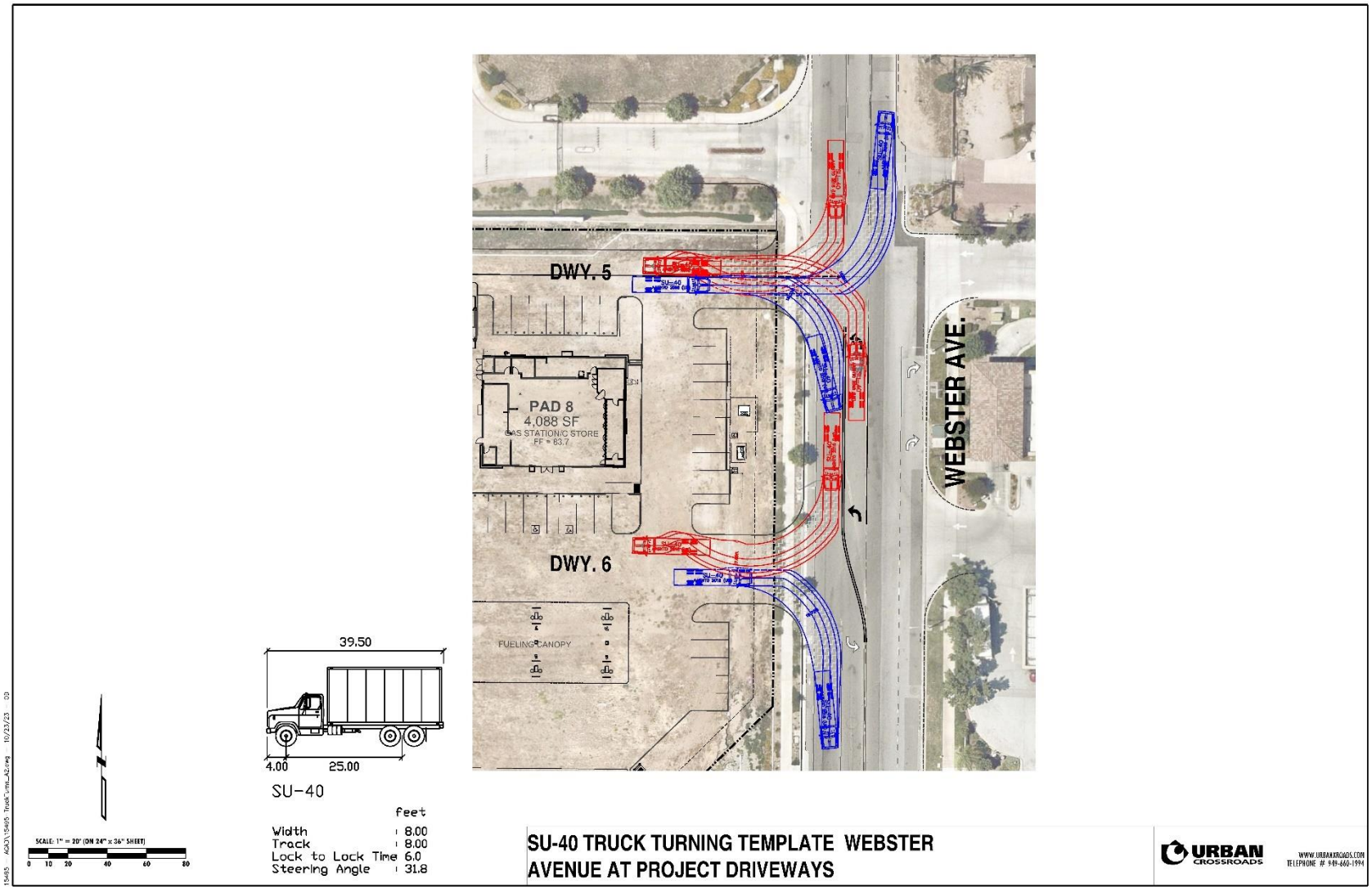
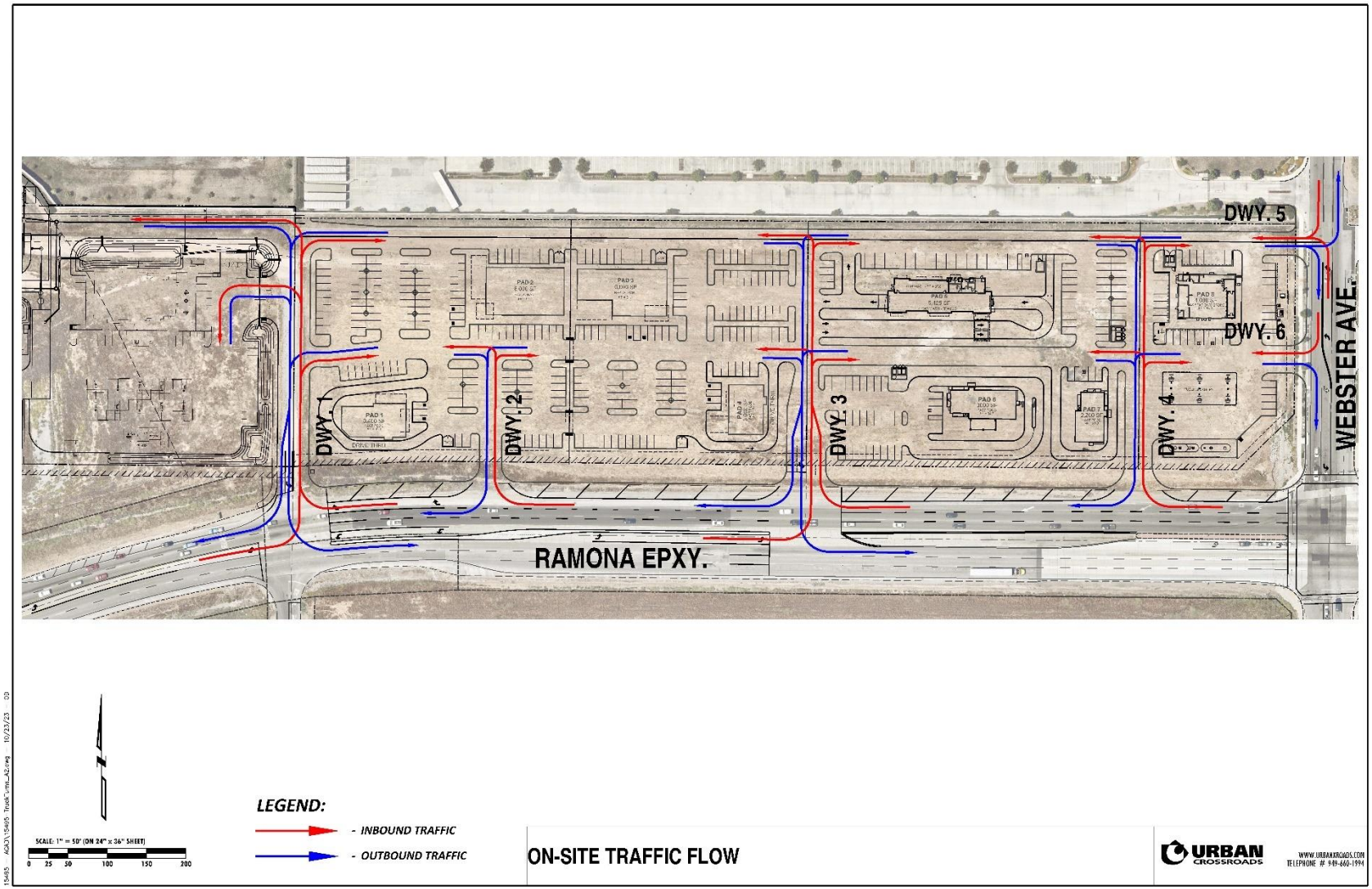


EXHIBIT 1-10: ON-SITE CIRCULATION



1.8.3 AFFORDABLE HOUSING

The City Guidelines state, if a project consists of 100% affordable housing, then the presumption can be made that it will have a less than significant impact on VMT. The Project does not intend to develop any residential uses.

Affordable Housing screening criteria not met.

1.8.4 HIGH QUALITY TRANSIT AREAS (HQTA) SCREENING

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"1 or an existing stop along a "high-quality transit corridor"2) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The City Guidelines provide a map of Transit Priority Areas (TPAs) within the City of Perris. The Project site was located on the map, and it was determined that the Project is not located within a TPA (see Attachment B).

HQTA screening criteria is not met.

1.8.5 LOCAL-SERVING LAND USE

As identified in the City Guidelines, local serving land uses provide more opportunities for residents and employees to shop, dine, and obtain services closer to home and work. The proposed Project of sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of storage building use. All components of the Project are local serving in nature as they provide greater dining, fueling, and storage opportunities to the local community thereby improving destination proximity and leading to shortened vehicle trips.

Local-Serving Land Use screening criteria is met.

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
2 Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

1.8.6 LOW VMT AREA SCREENING

The City Guidelines state, "Projects that locate in areas with low VMT, and that incorporate similar features (i.e., land use type, access to the circulation network, etc.), will tend to exhibit similarly low VMT." It is our understanding that the City of Perris utilizes its own VMT scoping form to identify areas of low VMT. The scoping form uses the sub-regional Riverside County Transportation Analysis Model (RIVTAM) to measure VMT performance in individual traffic analysis zones (TAZs) within the Western Riverside Council of Governments (WRCOG) region. First, the Project's physical location based on the WRCOG web-based screening tool is used to determine the TAZ in which the Project resides. The TAZ identification number is then selected within the scoping form and the VMT generated by the existing TAZ is compared to the City's impact threshold of VMT per employee as all components of the Project are non-residential. The proposed Project is located in two TAZs. The self-storage facility and the two fast-food restaurants sit on the northern and western portion of the site respectively and are located in TAZ 3736. TAZ 3736 is not part of the Perris Scoping form and does not have any existing VMT information, therefore a determination of low VMT area cannot be made for this TAZ. The remainder of the Project is located on the southeastern portion of the Project site in TAZ 3754 and the VMT per employee is 12.19. Since the Project's TAZ VMT exceeds the City of Perris citywide VMT average of 11.62, the Project does not reside within a low VMT generating area.

Low VMT Area screening criteria is not met.

1.8.7 NET DAILY TRIPS LESS THAN 500 ADT

The City Guidelines indicates that projects that generate less than 500 average daily trips (ADT) would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less than significant impact on VMT. The self-storage component is expected to generate 118 two-way daily trips; however, the remaining components are expected to exceed the 500 ADT threshold (see Attachment D).

Net Daily Trips Less Than 500 ADT screening criteria is met for only the self-storage component.

1.8.8 CONCLUSION

As the Project's self-storage component meets the Net trips Less than 500 ADT screening criteria and the entire Project was found to meet the Local Serving Land Use screening criteria. The Project in its entirety is presumed to have a **less than significant VMT impact**.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Perris's Traffic Study Guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (4) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Perris requires signalized intersection operations analysis based on the methodology described in the HCM. (4) Intersection LOS operations are based on an intersection's average control delay. Control delays include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is related to the average control delay per vehicle and is correlated to a LOS designation as described on Table 2-1.

The traffic modeling and signal timing optimization software package Synchro (Version 11) is utilized to analyze signalized intersections within the study area. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Customary practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (4)

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Perris requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (4) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the California Department of Transportation (Caltrans) California Manual on Uniform Traffic Control Devices *(CA MUTCD)* for all study area intersections. (5)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Caltrans CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (5) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Urban warrants have been used as posted speed limits on the major roadways with unsignalized intersections are 40 miles per hour or below and rural warrants have been used where speeds exceed 40 miles per hour.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Similarly, the speed limit has been used as the basis for determining the use of Urban and Rural warrants. A traffic signal warrant analysis was performed for the following study area intersection shown in Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection
3	Driveway 1/Nevada Rd. & Ramona Exwy.
5	Driveway 3 & Ramona Exwy.
7	Webster Av. & Driveway 5

Although unsignalized, the intersections of Driveway 2 & Ramona Expressway (#4), Driveway 4 & Ramona Expressway (#6), and Driveway 6 & Ramona Expressway (#8) are proposed for right-in/right-out access only. As such, traffic signal warrants have not been evaluated due to the access restrictions and infeasibility of a signal installation at these locations. The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Conditions* and Section 6 *EAC & EAPC (2026) Traffic Conditions* of this report. It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 QUEUING ANALYSIS

Consistent with Caltrans requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections at the I-215 Freeway at the Ramona Expressway interchange. Specifically, the off-ramp queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-215 Freeway mainline from the off-ramps. The 95th percentile queue has also been utilized to assess the queues at the turn pockets at all study area intersections to identify any potential queuing.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential deficiencies/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The footnote from the Synchro output sheets indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations.

2.5 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The definition of an intersection deficiency has been obtained from the City of Perris' General Plan. LOS D along all City maintained roads (including intersections) and LOS D along I-215 and SR-74 (including intersections with local streets and roads). An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway, or at I-215 Freeway ramps. (6)

LOS E may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

For the purposes of this traffic impact analysis, LOS D has also been considered the acceptable threshold for all study area intersections.

2.6 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. The following deficiency criteria has been utilized for the City of Perris. To determine whether the addition of project-related traffic at a study intersection would result in a deficiency, the following will be utilized:

- A project-related deficiency is considered direct and significant when a study intersection operates at an acceptable LOS for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more and causes the intersection to operate at an unacceptable LOS for existing plus project (E+P) traffic conditions.
- A project-related deficiency is considered direct and significant when a study intersection operates at an unacceptable LOS for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more.
- A cumulative deficiency is considered direct and significant when a study intersection is forecast to operate at an acceptable LOS without the project and the addition of 50 or more AM or PM peak hour project trips causes the intersection to delay increase by 2 seconds or more and causes the intersection to operate at an unacceptable LOS for existing plus project (E+P) traffic conditions.
- A cumulative deficiency is considered indirect and significant when a study intersection is forecast to operate at an unacceptable LOS and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more.

2.7 PROJECT FAIR SHARE CALCULATION METHODOLOGY

In cases where this TA identifies that the Project would contribute additional traffic volumes to traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total future (EAPC) traffic less existing baseline traffic:

Project Fair Share % = Project AM/PM Traffic / (2026 With Project AM/PM Total Traffic – Existing (2023) AM/PM Traffic)

The project fair share percentage has been calculated for both the AM peak hour and PM peak hour and the highest of the two has been selected. The Project fair share contribution calculations are presented in Section 7 *Local and Regional Funding Mechanisms* of this TA.

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Perris General Plan Circulation Network, and a review of existing peak hour intersection operations, traffic signal warrant, off-ramp queueing, and turn-pocket queuing analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Perris staff (Appendix 1.1), the study area includes a total of 13 existing and future intersections as shown previously on Exhibit 1-3. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Perris. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Perris General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Perris General Plan Circulation Element and Exhibit 3-3 describes the City of Perris General Plan roadway cross-sections. The study area roadways that lie within the City of Perris are described below.

Expressways are designed to accommodate six to eight travel lanes with a raised median, within a 184-foot right of way. The following study area roadway within the City of Perris is classified as an Expressway:

- Ramona Expressway

Arterials are designed to accommodate six travel lanes with a raised median, within a 128-foot right of way. The following study area roadways within the City of Perris are classified as Arterials:

- Perris Boulevard
- Evans Road

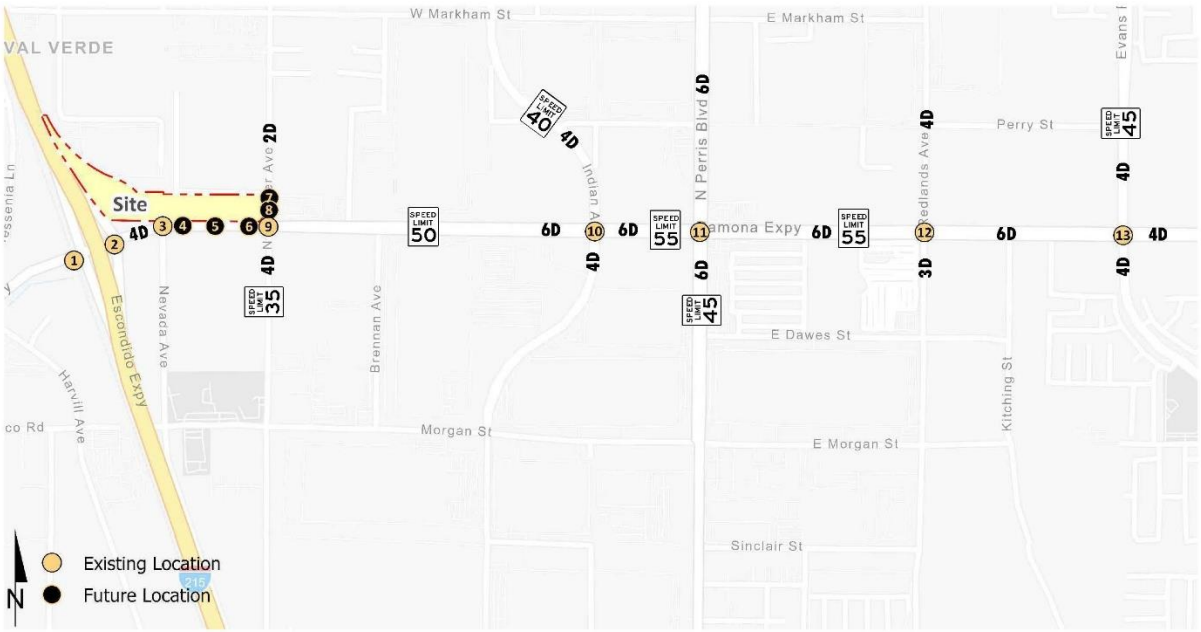
Secondary Arterials are designed to accommodate four travel lanes with a raised or painted median, within a 94-foot right of way. The following study area roadways within the City of Perris are classified as Secondary Arterials:

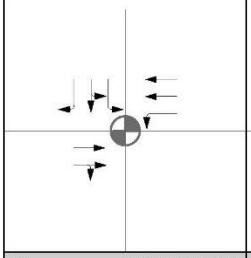
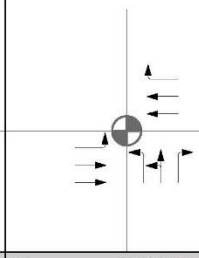
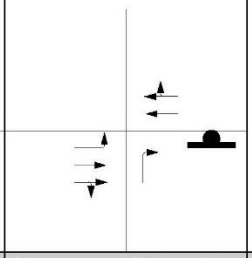
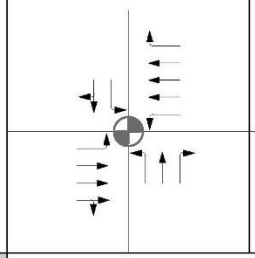
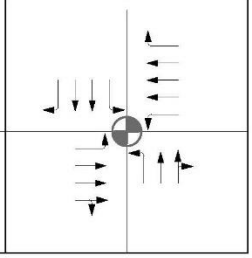
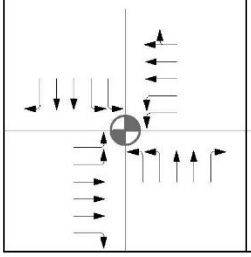
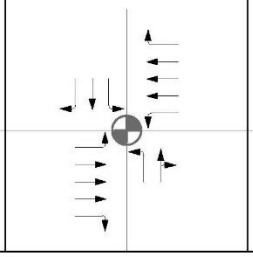
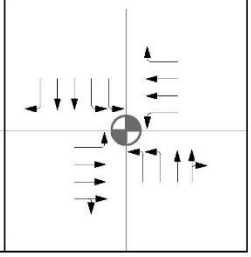
- Webster Avenue
- Indian Avenue
- Redlands Avenue

Collectors are designed to accommodate two travel lanes without a median, within a 66-foot right of way. The following study area roadway within the City of Perris is classified as a Collector:

- Nevada Avenue

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



1 1-215 SB Ramps & Ramona Exwy.	2 1-215 NB Ramps & Ramona Exwy.	3 Driveway 1 / Nevada Av. & Ramona Exwy.	4 Driveway 2 & Ramona Exwy.	5 Driveway 3 & Ramona Exwy.
			Future Intersection	Future Intersection
6 Driveway 4 & Ramona Exwy.	**7 Webster Av. & Driveway 5**	**8 Webster Av. & Driveway 6**	**9 Webster Av. & Ramona Exwy.**	**10 Indian Av. & Ramona Exwy.**
Future Intersection	Future Intersection	Future Intersection		
11 Perris Bl. & Ramona Exwy.	**12 Redlands Av. & Ramona Exwy.**	**13 Evans Rd. & Ramona Exwy.**		
				

- = Speed Limit (MPH)
- 4 = Number of Lanes
- D = Divided
- U = Undivided
- = Traffic Signal
- = Stop Sign
- = Traffic Lane

EXHIBIT 3-2: CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT

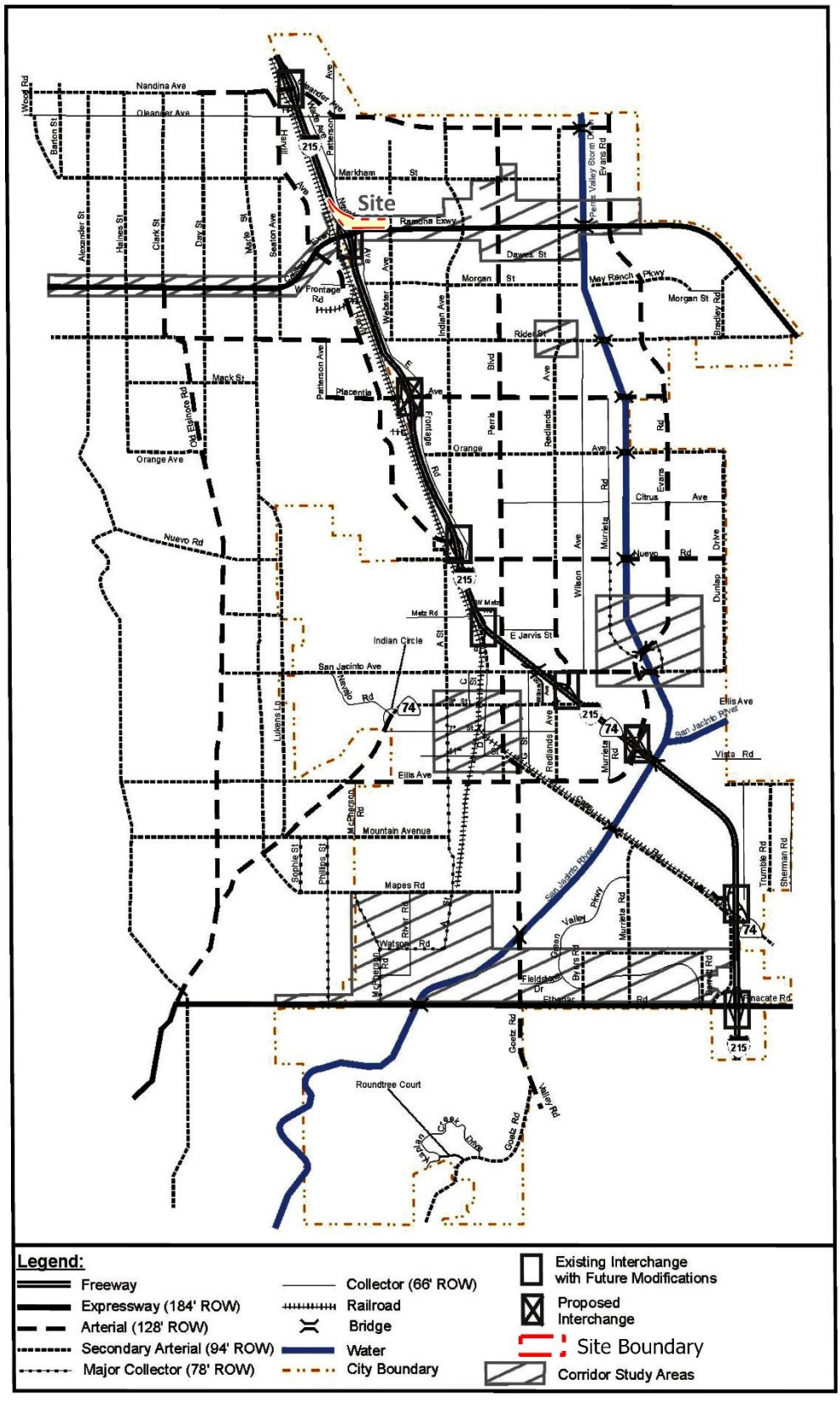
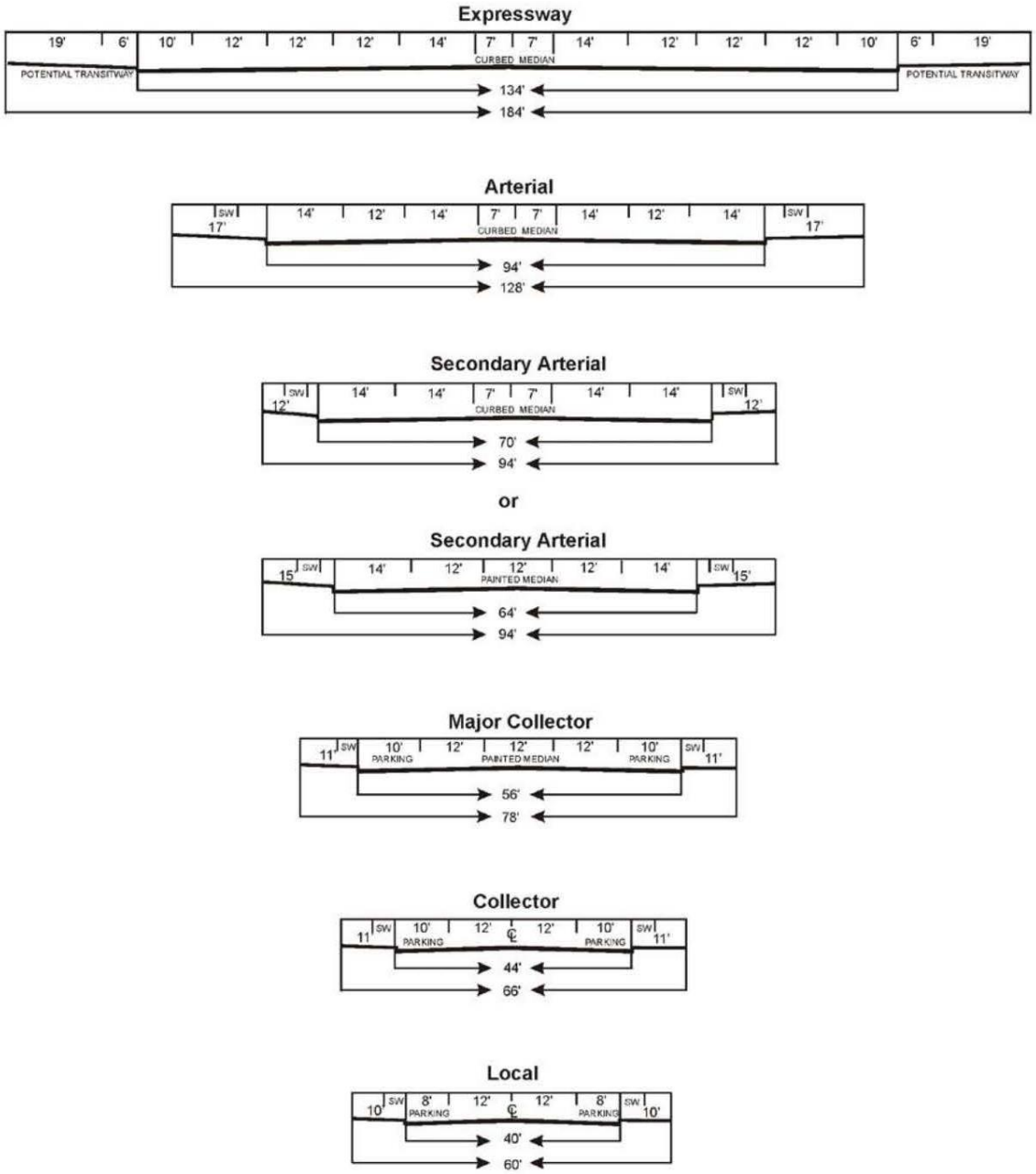


EXHIBIT 3-3: CITY OF PERRIS GENERAL PLAN ROADWAY CROSS-SECTIONS



Specific details for each cross-section follow in Figures 4.1 A - 4.1 F

Legend

SW	Sidewalk or Trail (at least 4 feet)	CURBED MEDIAN	Landscaped Center Median
PARKING	Parking or Bike Lane		
PAINTED MEDIAN	Center Median and/or Continuous Left Turning Lane		

3.3 BICYCLE, EQUESTRIAN, & PEDESTRIAN FACILITIES

Field observations indicate nominal pedestrian and bicycle activity within the study area. As shown on Exhibit 3-4, pedestrian facilities are built out along portions of Ramona Expressway and Webster Avenue. The City of Perris bike networks are shown on Exhibit 3-5. As shown on Exhibit 3-5, there is a Class IV separate bike lane recommended along Ramona Expressway, a Class IIIB bicycle boulevard recommended along Webster Avenue, and a Class I shared-use bike path along Nevada Avenue.

3.4 EXISTING TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in May 2023 when local schools were in session and operating on a typical bell schedule. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The 2023 weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

Existing weekday ADT volumes are shown on Exhibit 3-6. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 16.16 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 6.19 percent. As such, the above equation utilizing a factor of 16.16 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 6.19 percent (i.e., 1/0.0619 = 16.16) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are also shown on Exhibit 3-6.

3.5 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized on Table 3-1, which indicates that all of the study area intersections are currently operating at an acceptable LOS during the peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

EXHIBIT 3-4: EXISTING PEDESTRIAN FACILITIES

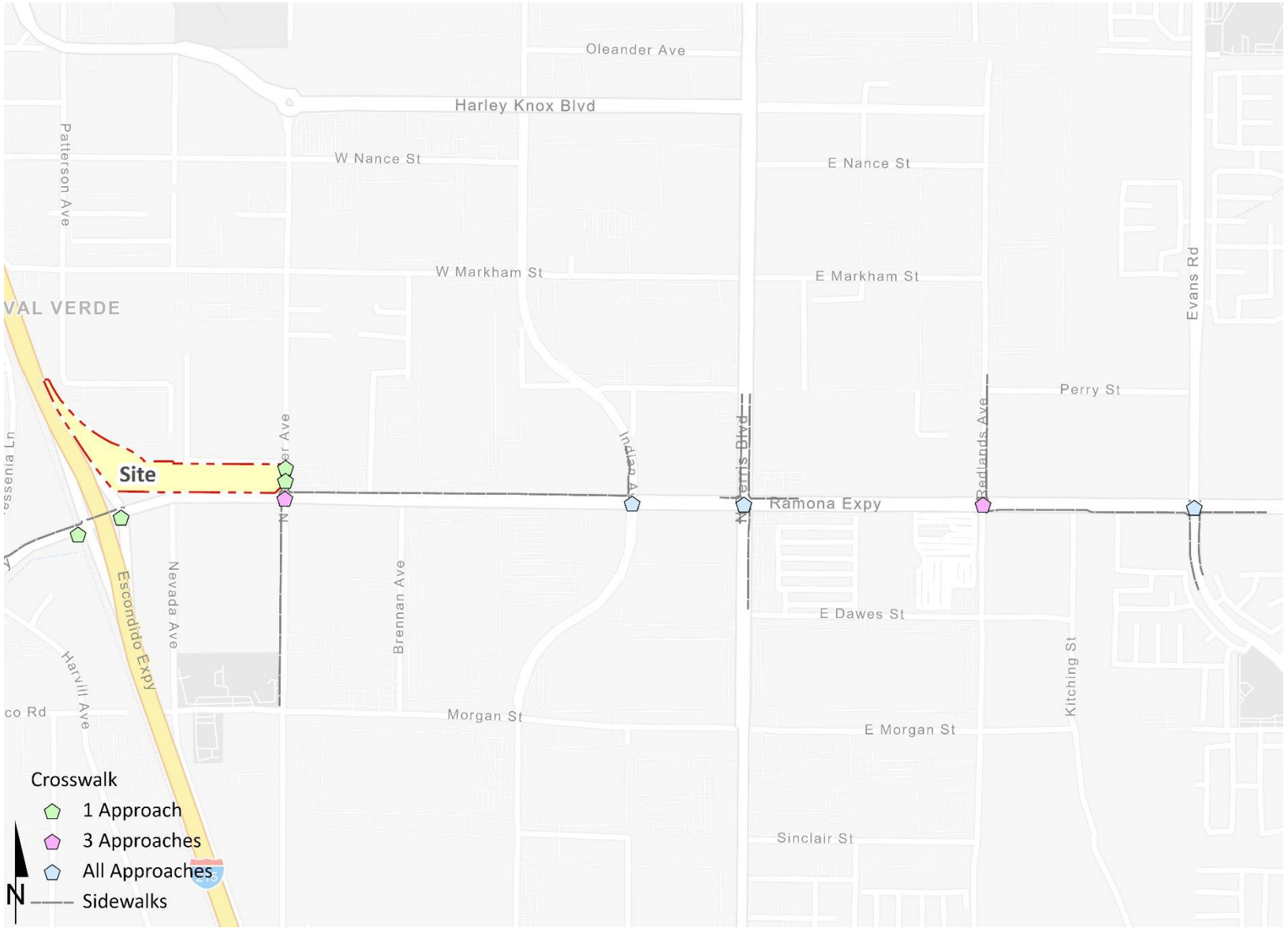


EXHIBIT 3-5: CITY OF PERRIS BIKE NETWORK

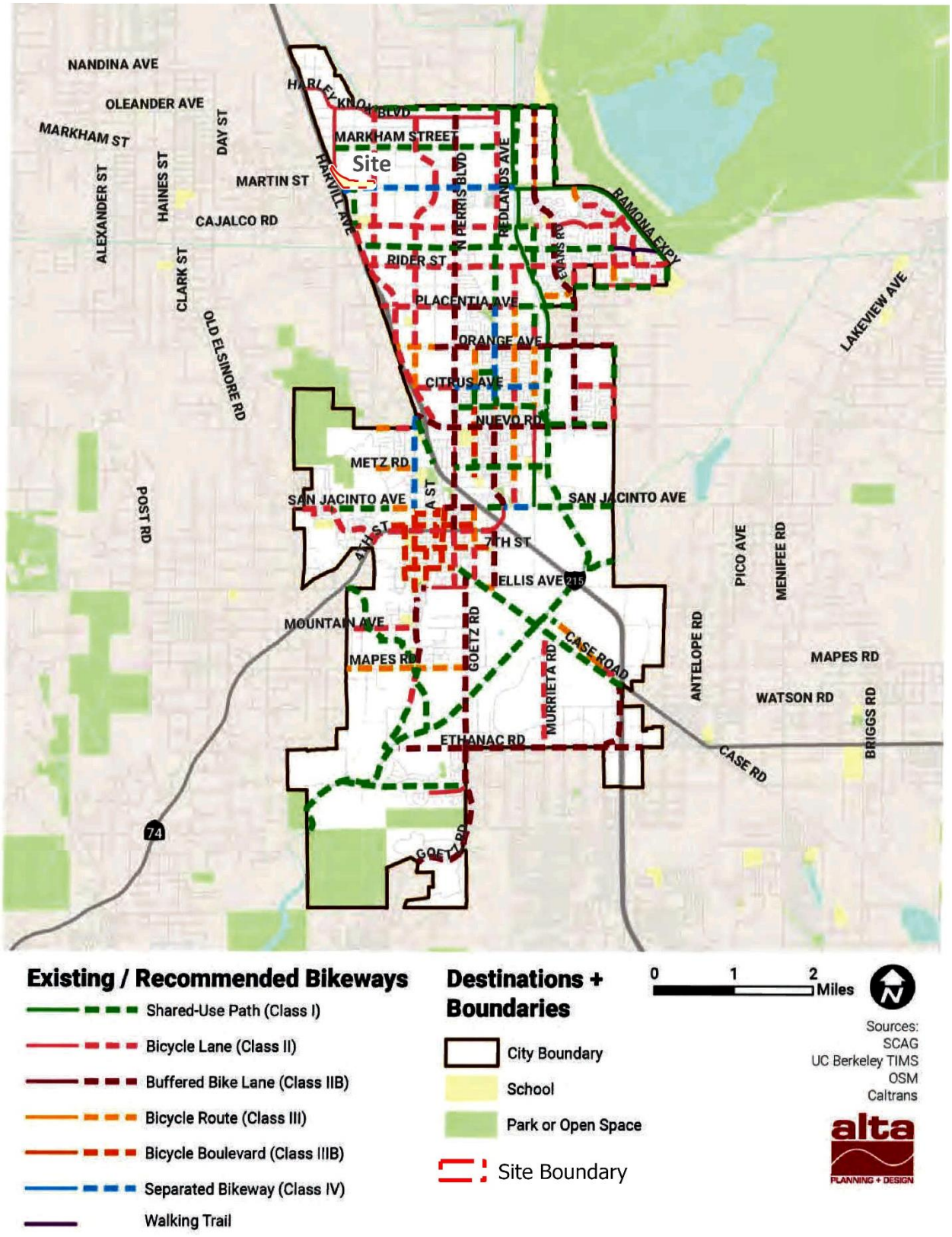
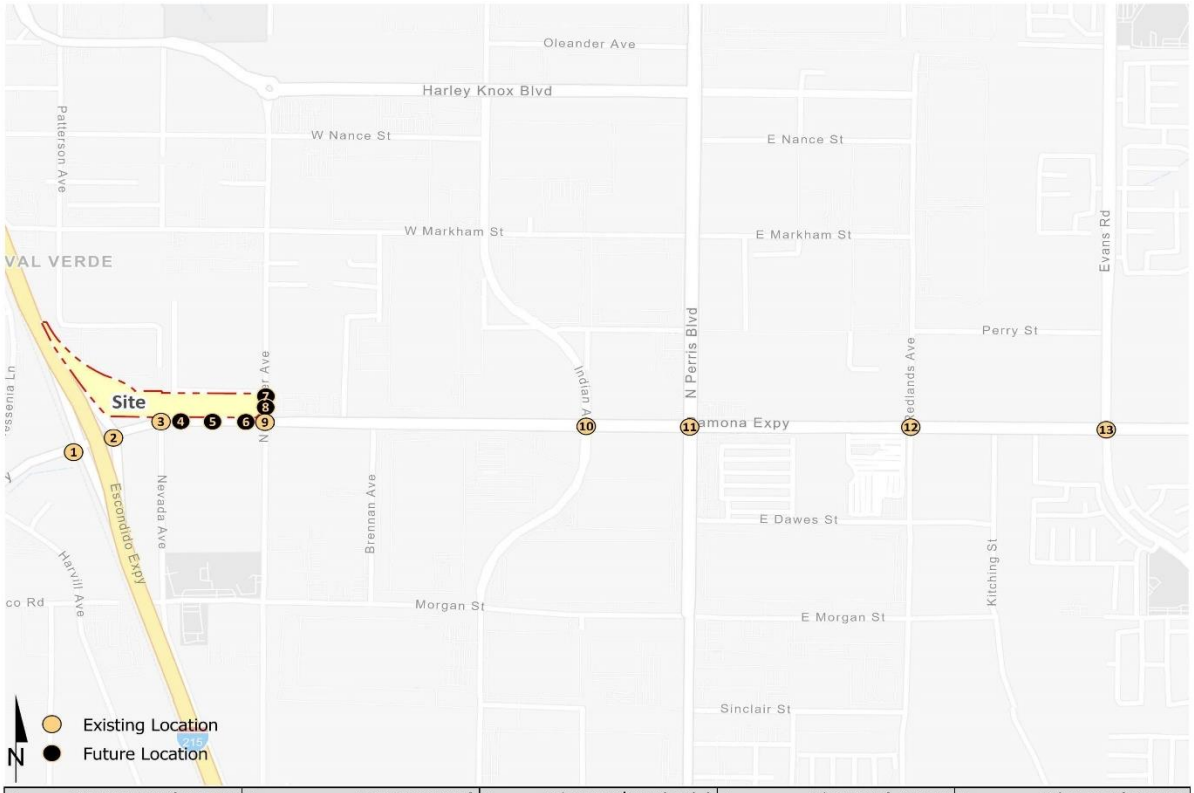


EXHIBIT 3-6: EXISTING (2023) TRAFFIC VOLUMES



1 I-215 SB Ramps & Ramona Exwy.	2 I-215 NB Ramps & Ramona Exwy.	3 Driveway 1/Nevada Rd. & Ramona Exwy.	4 Driveway 2 & Ramona Exwy.	5 Driveway 3 & Ramona Exwy.
10,500 / 41,450 112(91) ↲ 2(0) ↓ 430(559) ↳ ← 867(886) ← 320(356) 541(762) → 404(433) ↴ 35,100 / 12,750	9,050 / 46,800 ↱ 530(449) ← 858(818) 85(108) ↴ 886(1213) → ↰ 329(424) ↑ 3(4) ↱ 568(415) 41,450 / 13,650	44,700 ← 1388(1267) ← 14(22) 1275(1475) → 179(153) ↴ ↱ 38(12) 46,800 / 3,000	44,700 ← 1402(1289) 1313(1487) → 44,700	44,700 ← 1402(1289) 1313(1487) → 44,700

6 Driveway 4 & Ramona Exwy.	7 Webster Av. & Driveway 5	8 Webster Av. & Driveway 6	9 Webster Av. & Ramona Exwy.	10 Indian Av. & Ramona Exwy.
44,700 ← 1402(1289) 1313(1487) → 44,700	6,600 127(221) ↓ ↑ 284(186) 6,600	6,600 127(221) ↓ ↑ 284(186) 6,600	7,150 / 40,600 79(114) ↲ 16(55) ↓ 32(52) ↳ ↱ 30(24) ← 1244(1088) ↰ 21(15) 194(133) ↴ 1053(1317) → 66(37) ↴ ↰ 79(87) ↑ 60(29) ↱ 14(17) 44,700 / 3,900	9,500 / 39,950 33(83) ↲ 65(165) ↓ 18(71) ↳ ↱ 58(69) ← 1221(973) ↰ 32(46) 111(97) ↴ 948(1215) → 39(31) ↴ ↰ 29(70) ↑ 88(103) ↱ 27(96) 39,900 / 8,250

11 Perris Bl. & Ramona Exwy.	12 Redlands Av. & Ramona Exwy.	13 Evans Rd. & Ramona Exwy.
31,100 / 36,800 211(211) ↲ 310(607) ↓ 121(272) ↳ ↱ 109(97) ← 952(719) ↰ 85(129) 319(303) ↴ 601(955) → 73(124) ↴ ↰ 148(147) ↑ 523(433) ↱ 64(105) 39,750 / 24,950	9,850 / 48,200 6(21) ↲ 37(104) ↓ 76(285) ↳ ↱ 461(129) ← 1195(994) ↰ 85(94) 17(12) ↴ 716(1397) → 37(65) ↴ ↰ 32(29) ↑ 137(59) ↱ 114(82) 40,700 / 7,000	34,350 / 32,400 388(436) ↲ 251(562) ↓ 185(262) ↳ ↱ 298(192) ← 966(583) ↰ 17(18) 323(387) ↴ 413(939) → 171(347) ↴ ↰ 387(198) ↑ 467(286) ↱ 27(12) 43,350 / 23,000

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2023) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	I-215 SB Ramps & Ramona Exwy.	TS	25.7	30.6	C	C
2	I-215 NB Ramps & Ramona Exwy.	TS	19.3	16.4	B	B
3	Driveway 1/Nevada Rd. & Ramona Exwy.	CSS	16.3	17.5	C	C
4	Driveway 2 & Ramona Exwy.		Future Intersection			
5	Driveway 3 & Ramona Exwy.		Future Intersection			
6	Driveway 4 & Ramona Exwy.		Future Intersection			
7	Webster Av. & Driveway 5		Future Intersection			
8	Webster Av. & Driveway 6		Future Intersection			
9	Webster Av. & Ramona Exwy.	TS	20.1	18.9	C	B
10	Indian Av. & Ramona Exwy.	TS	17.0	19.5	B	B
11	Perris Bl. & Ramona Exwy.	TS	43.3	43.7	D	D
12	Redlands Av. & Ramona Exwy.	TS	16.3	25.6	B	C
13	Evans Rd. & Ramona Exwy.	TS	36.1	25.6	D	C

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop

3.6 SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. There are no unsignalized study area intersections that currently warrant a traffic signal for Existing traffic conditions. Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

3.7 QUEUING ANALYSIS

3.7.1 OFF-RAMPS

A queuing analysis was performed for the off-ramps at the I-215 Freeway at Ramona Expressway interchange. Off-ramp queuing analysis findings are presented in Table 3-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 3-2, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing (2023) traffic conditions off-ramp queuing analysis are provided in Appendix 3.4.

TABLE 3-2: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR EXISTING (2023) CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps & Ramona Exwy.	SBL	510	242	336 [2]	Yes	Yes
	SBL/T	1,110	245	336 [2]	Yes	Yes
	SBR	510	47	43	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	NBL	1,120	128	181	Yes	Yes
	NBL/T	510	131	186	Yes	Yes
	NBR	510	479 [2]	323	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.
[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

3.7.2 ROADWAYS

A queuing analysis was performed for the turn pockets-ramps at the study area intersections. Turn pocket queuing analysis findings are presented in Table 3-2. As shown in Table 3-3, the following movements are currently experiencing turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM peak hour only
- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) southbound right-turn – AM peak hour only

Worksheets for Existing (2023) traffic conditions turn pockets queuing analysis are also provided in Appendix 3.4.

TABLE 3-3: PEAK HOUR TURN POCKET QUEUING SUMMARY FOR EXISTING (2023) CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps & Ramona Exwy.	WBL	115	125	**348** [2]	Yes	**No**
I-215 NB Ramps & Ramona Exwy.	EBL	115	106 [3]	98 [3]	Yes	Yes
	WBR	155	**195**	133	**No**	Yes
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	125	0	0	Yes	Yes
	WBL	130	3	5	Yes	Yes
Webster Av. & Ramona Exwy.	NBL	200	169 [2]	181 [2]	Yes	Yes
	SBL	130	63 [2]	114 [2]	Yes	Yes
	EBL	200	**354** [2]	**253** [2]	**No**	**No**
	WBL	200	44	36	Yes	Yes
Indian Av. & Ramona Exwy.	NBL	195	146	106	Yes	Yes
	SBL	185	40	106	Yes	Yes
	SBR	175	0	0	Yes	Yes
	EBL	190	146	134	Yes	Yes
	WBL	280	59	77	Yes	Yes
	WBR	260	0	0	Yes	Yes
Perris Bl. & Ramona Exwy.	NBL	350	94	93	Yes	Yes
	NBR	150	0	9	Yes	Yes
	SBL	200	80	158	Yes	Yes
	SBR	145	55	64	Yes	Yes
	EBL	330	173	172	Yes	Yes
	EBR	215	0	20	Yes	Yes
	WBL	300	53	87	Yes	Yes
Redlands Av. & Ramona Exwy.	NBL	200	58	55	Yes	Yes
	SBL	280	104	**416** [2]	Yes	**No**
	EBL	315	37	32	Yes	Yes
	EBR	315	0	0	Yes	Yes
	WBL	300	118	184 [2]	Yes	Yes
	WBR	260	77	33	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	200	196 [2]	117	Yes	Yes
	SBL	215	114	147	Yes	Yes
	SBR	215	**266**	166	**No**	Yes
	EBL	325	196 [2]	202	Yes	Yes
	EBR	330	44	58	Yes	Yes
	WBL	310	39	39	Yes	Yes
	WBR	200	121	56	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.
[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
[3] Volume for 95th percentile queue is metered by upstream signal

3.8 DEFICIENCIES AND IMPROVEMENTS

3.8.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The study area intersections currently operate at an acceptable LOS during the peak hours. As such, no improvements have been identified.

3.8.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON TURN POCKET QUEUES

Improvement strategies have been recommended at turn pockets that been identified to experience queuing issues under Existing (2023) traffic conditions. The effectiveness of the recommended improvement strategies to address queuing deficiencies are presented in Table 3-4. It should be noted, improvements have only been identified if they are feasible, based on the existing geometry of the turn pockets.

TABLE 3-4: PEAK HOUR QUEUING SUMMARY FOR EXISTING (2023) CONDITIONS WITH IMPROVEMENTS

			Existing (2023)			
		Available Stacking	95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement	Distance (Feet)[4]	AM Peak	PM Peak	AM	PM
Webster Av. & Ramona Exwy.	EBL	**450**	354 [2]	253 [2]	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	**300**	196 [2]	117	Yes	Yes
	SBR	**425**	266	166	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] **100** = Improvement

4 PROJECTED FUTURE TRAFFIC

The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. Vehicular access will be provided via the following driveways:

- Driveway 1 on Ramona Expressway – signalized access to align with Nevada Avenue
- Driveway 2 on Ramona Expressway – right-in/right-out access driveway
- Driveway 3 on Ramona Expressway – signalized full access assumed to align with future development on the South of Ramona Expressway
- Driveway 4 on Ramona Expressway – right-in/right-out access driveway
- Driveway 5 on Webster Avenue – full access driveway
- Driveway 6 on Webster Avenue – right-in/right-out access driveway

Regional access to the Project site is accommodated from the I-215 Freeway via Ramona Expressway.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the ITE Trip Generation Manual (11th Edition, 2021). (2)

Trip generation rates for the proposed uses are summarized in Table 4-1. A summary of the proposed Project trip generation is shown on Table 4-2. As shown in Table 4-2, the proposed Project is anticipated to generate 14,394 two-way trips per day with 747 AM peak hour trips and 590 PM peak hour trips.

TABLE 4-1: PROJECT TRIP GENERATION RATES

	ITE Land		AM Peak Hour			PM Peak Hour			
Land Use[1]	Use Code	Units[2]	In	Out	Total	In	Out	Total	Daily
Mini-Warehouse	151	TSF	0.05	0.04	0.09	0.07	0.08	0.15	1.45
High Turnover (Sit-Down) Restaurant	932	TSF	5.26	4.31	9.57	5.52	3.53	9.05	107.20
Fast-Food Restaurant With Drive-Thru	934	TSF	22.75	21.86	44.61	17.18	15.85	33.03	467.48
Gas Station (Market >4,000 SF)	945	VFP	13.52	13.52	27.04	11.38	11.38	22.76	257.13
Gas Station (Market >5,500 SF)	945	VFP	15.80	15.80	31.60	13.45	13.45	26.90	345.75
Automated Car Wash	948	TUN	N/A	N/A	N/A	38.75	38.75	77.50	775.00

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet; VFP = Vehicle Fueling Positions; TUN = Tunnels

[3] The daily trip rate is assumed to be 10 times the PM peak hour total rate for Automated Car Wash land use (ITE Land Use Code 948)

TABLE 4-2: PROJECT TRIP GENERATION SUMMARY

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Self-Storage	80.478	TSF	4	3	7	6	6	12	118
High Turnover (Sit-Down) Restaurant	12.000	TSF	63	52	115	66	42	108	1,286
Internal Capture:			0	0	0	-1	-3	-4	-80
Pass-by Trip Reduction (PM = 43%; Daily = 25%):			0	0	0	-17	-17	-34	-302
Fast-Food Restaurant With Drive-Thru	18.400	TSF	419	402	821	316	292	608	8,602
Internal Capture:			0	0	0	-10	-17	-27	-514
Pass-by Trip Reduction (AM = 50%; PM = 55%; Daily = 25%):			-201	-201	-402	-151	-151	-302	-2,022
Gas Station (Market >4,000 SF)	12	VFP	162	162	324	137	137	274	3,086
Internal Capture (10%):			-16	-16	-32	-14	-14	-27	-309
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-111	-111	-222	-92	-92	-184	-694
Gas Station (Market >5,500 SF)	20	VFP	316	316	632	269	269	538	6,916
Internal Capture (10%):			-32	-32	-63	-27	-27	-54	-692
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-216	-216	-432	-182	-182	-364	-1,556
Automated Car Wash	1	TUN	0	0	0	39	39	78	776
Internal Capture:			0	0	0	-20	-11	-31	-222
Total Gross Trips (No Reductions)			964	935	1,899	833	785	1,618	20,784
Total Internal Capture Trips			-48	-48	-96	-72	-72	-143	-1,816
Total Pass-By Reduction Trips			-528	-528	-1,056	-442	-442	-884	-4,574
Total Gross Trips minus Internal Capture Reduction			916	887	1,803	761	713	1,474	18,968
Total Net Project Trips			**388**	**359**	**747**	**319**	**271**	**590**	**14,394**

[1] TSF = thousand square feet; VFP = Vehicle Fueling Positions; TUN = Tunnels

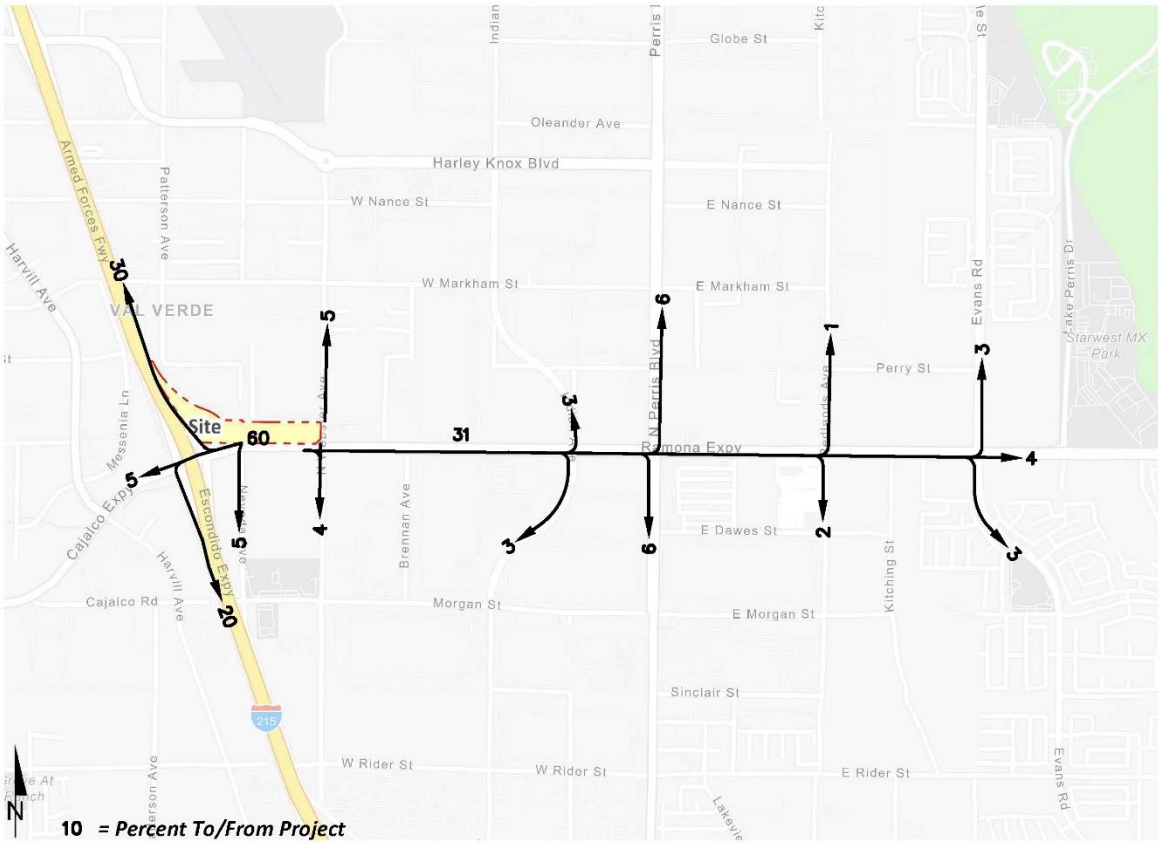
4.2 PROJECT TRIP DISTRIBUTION

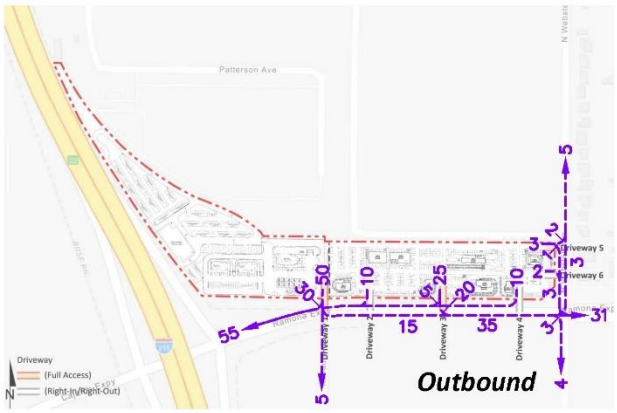
The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site and are consistent with other similar projects that have been reviewed and approved by City of Perris staff. Distribution patterns were based on existing and planned land uses and roadway infrastructure in the area. The trip distribution is shown on Exhibit 4-1.

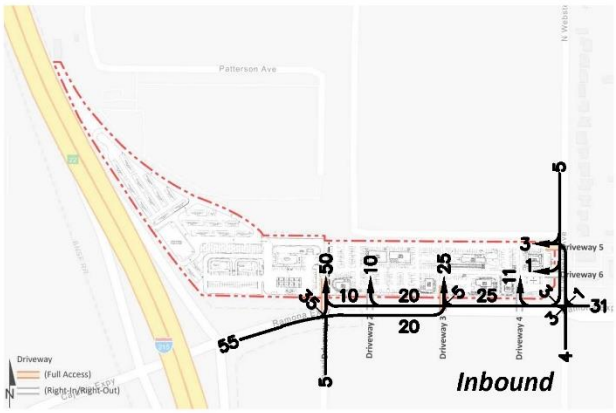
4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION







4.4 PROJECT TRIP ASSIGNMENT

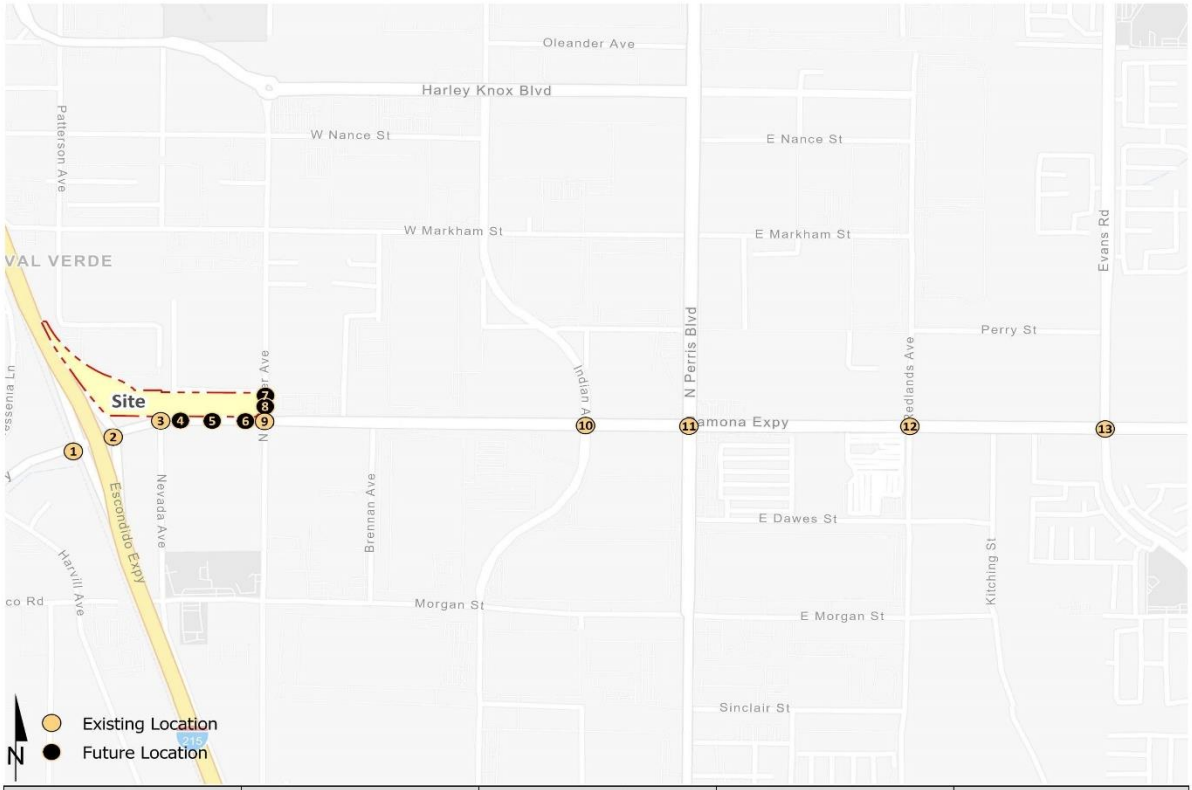
The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and weekday/weekend peak hour intersection turning movement volumes are shown on Exhibit 4-2.

4.5 BACKGROUND TRAFFIC

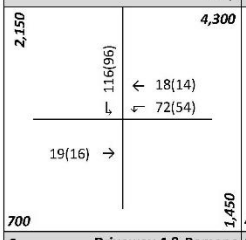
Future year traffic forecasts have been based upon background (ambient) growth at 3% per year, compounded annually, for 2026 conditions. The total ambient growth is 9.27% for 2026 traffic conditions (compounded growth of 3 percent per year over 2 years or $1.03^{3\ years}$). The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

The currently adopted Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (September 2020) growth forecasts for the City of Perris identifies projected growth in population of 74,900 in 2016 to 121,000 in 2045, or a 61.6 percent increase over the 29-year period. (7) The change in population equates to roughly a 1.67 percent growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 96.5 percent, or 2.36 percent annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 64.0 percent, or a 1.72 percent annual growth rate. This results in an average of 1.91 percent annual growth rate. As such, the 3.0 percent per year ambient growth rate utilized in this TA would appear to conservatively estimate annual traffic growth and overstate as opposed to understate future traffic forecasts.

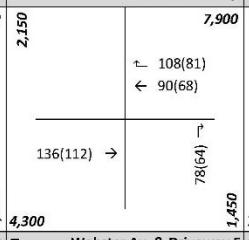
EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



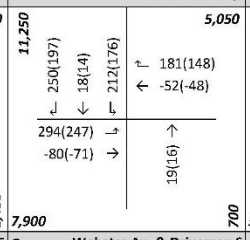
1 I-215 SB Ramps & Ramona Exwy.



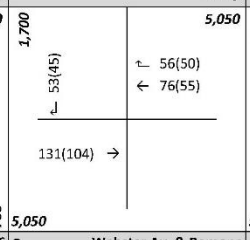
2 I-215 NB Ramps & Ramona Exwy.



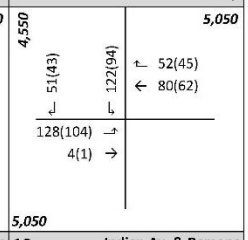
3 Driveway 1/Nevada Rd. & Ramona Exwy.



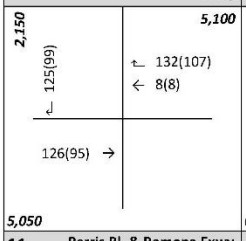
4 Driveway 2 & Ramona Exwy.



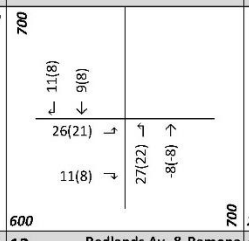
5 Driveway 3 & Ramona Exwy.



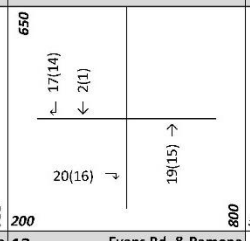
6 Driveway 4 & Ramona Exwy.



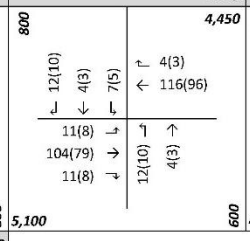
7 Webster Av. & Driveway 5



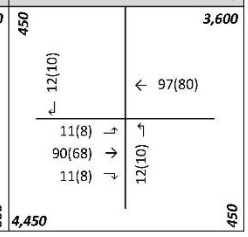
8 Webster Av. & Driveway 6



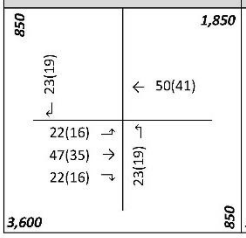
9 Webster Av. & Ramona Exwy.



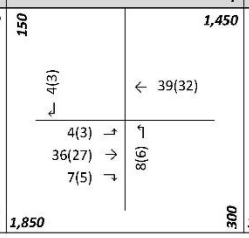
10 Indian Av. & Ramona Exwy.



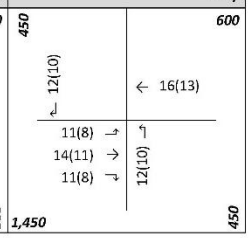
11 Perris Bl. & Ramona Exwy.



12 Redlands Av. & Ramona Exwy.



13 Evans Rd. & Ramona Exwy.



##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the County of Riverside and City of Perris. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e., 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Opening Year Cumulative forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-3, listed in Table 4-3, and have been considered for inclusion. Any additional traffic generated by other projects not on the cumulative projects list is likely accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative Only ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-4.

TABLE 4-3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

No.	Project Name / Case Number	Land Use	Quantity	Units[1]
RC1	Majestic Freeway Business Center - Building 20	High-Cube Warehouse	426.821	TSF
RC2	Majestic Freeway Business Center - Building 21,22	Warehousing	241.059	TSF
RC3	Knox Logistics Center	High-Cube Warehouse	1,259.410	TSF
RC4	Oleander Business Park	High-Cube Warehouse	680.000	TSF
RC5	PPT190031	High-Cube Warehouse	418.000	TSF
RC6	Majestic Freeway Business Center - Building 19	Warehousing	364.560	TSF
RC7	Majestic Freeway Business Center - Building 12	Warehousing	154.751	TSF
RC8	Majestic Freeway Business Center - Building 15	Warehousing	90.279	TSF
RC9	Majestic Freeway Business Center - Building 11	High-Cube Warehouse	391.045	TSF
RC10	PPT180025: Seaton Commerce Center	High-Cube Warehouse	210.800	TSF
RC11	Majestic Freeway Business Center - Buildings 1, 3 & 4	Warehousing	48.930	TSF
		High-Cube Warehouse	1,195.740	TSF
RC12	Majestic Freeway Business Center - Building 18	High-Cube Warehouse	333.648	TSF
RC13	Majestic Freeway Business Center - Building 17	High-Cube Warehouse	268.955	TSF
RC14	Majestic Freeway Business Center - Building 14A/B	Warehousing	354.583	TSF
RC15	PPT210130	Warehousing	239.308	TSF
RC16	Harvill & Cajalco Warehouse	General Light Industrial	99.770	TSF
		Truck Trailer Yard	133	Spaces
RC17	PPT210022	General Light Industrial	98.940	TSF
RC18	PPT210133	Warehousing	350.481	TSF
RC19	Majestic Freeway Business Center - Building 19	Warehousing	322.997	TSF
P1	Canyon Steel (CS)	Industrial	25.000	TSF
P2	First March Logistics	Warehousing	589.971	TSF
P3	Duke - Patterson at Nance	High-Cube Warehouse	580.000	TSF
P4	Western Industrial (DRP19-00003)	High-Cube Warehouse	250.000	TSF
P5	Marijuana Manufacturing (MM)	Industrial	1.000	TSF
P6	AAA	Industrial	2.000	TSF
P7	Integra Expansion / MMOD 17-05075	High-Cube Warehouse	273.000	TSF
P8	Rados / DPR 07-0119	High-Cube Warehouse	1,200.000	TSF
P9	Patterson Commerce Center	High-Cube Fulfillment	224.247	TSF
		High-Cube Cold Storage	39.573	TSF
P10	Ramona Gateway Commerce Center	High-Cube Fulfillment	902.713	TSF
		High-Cube Cold Storage	47.511	TSF
		Fast-Food Restaurant w/ DT	16.500	TSF
		Fast-Food Restaurant w/o DT	10.200	TSF
		Coffee Shop w/ DT	2.400	TSF
		Automated Car Wash	1.000	Tunnel
		Gas Station w/ Market	16.000	VFP
P11	Ramona & Brennan	Warehousing	162.871	TSF
P12	Stratford Ranch East / TTM 38071	Single Family Detached	197	DU
	APN 302200005	Single Family Detached	19	DU
P13	Perris Truck Yard	Truck Yard	9.5	AC
P14	First Indus (Goodwin)	High-Cube Warehouse	338.000	TSF
P15	Kwasizur Industrial	Warehousing	138.000	TSF
P16	Patriot Industrial	Warehousing	286.000	TSF
P17	Lakecreek East and West	High-Cube Warehouse	556.000	TSF
P18	Harley Knox Commerce Park / DPR 16-004	High-Cube Warehouse	386.278	TSF
P19	Stratford Ranch West / TTM 36648 (70% Complete)	Single Family Detached	27	DU
P20	Rider 2/4	High-Cube Warehouse	1,373.449	TSF
P21	Pulliam Indus	Industrial	16.000	TSF
P22	Burge Indus	Industrial	37.000	TSF
P23	Nance Industrial	Warehousing	156.000	TSF
P24	Perris and Ramona Warehouse	Industrial	347.938	TSF
P25	JM Realty Perris and Indian	Warehouse	232.575	TSF
		Hotel	125	Room
P26	Harley Knox Commerce Center	Warehousing	156.780	TSF
P27	OLC3	High-Cube Fulfillment	774.419	TSF
		Strip Retail	30.825	TSF
		High-Turnover (Sit-Down) Restaurant	5.000	TSF
		Fast-Food Without Drive-Thru	23.775	TSF
		Fast-Food With Drive-Thru	10.400	TSF
JPA1	VIP 215	High-Cube Warehouse	2,219.850	TSF

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions; AC = Acres

EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP

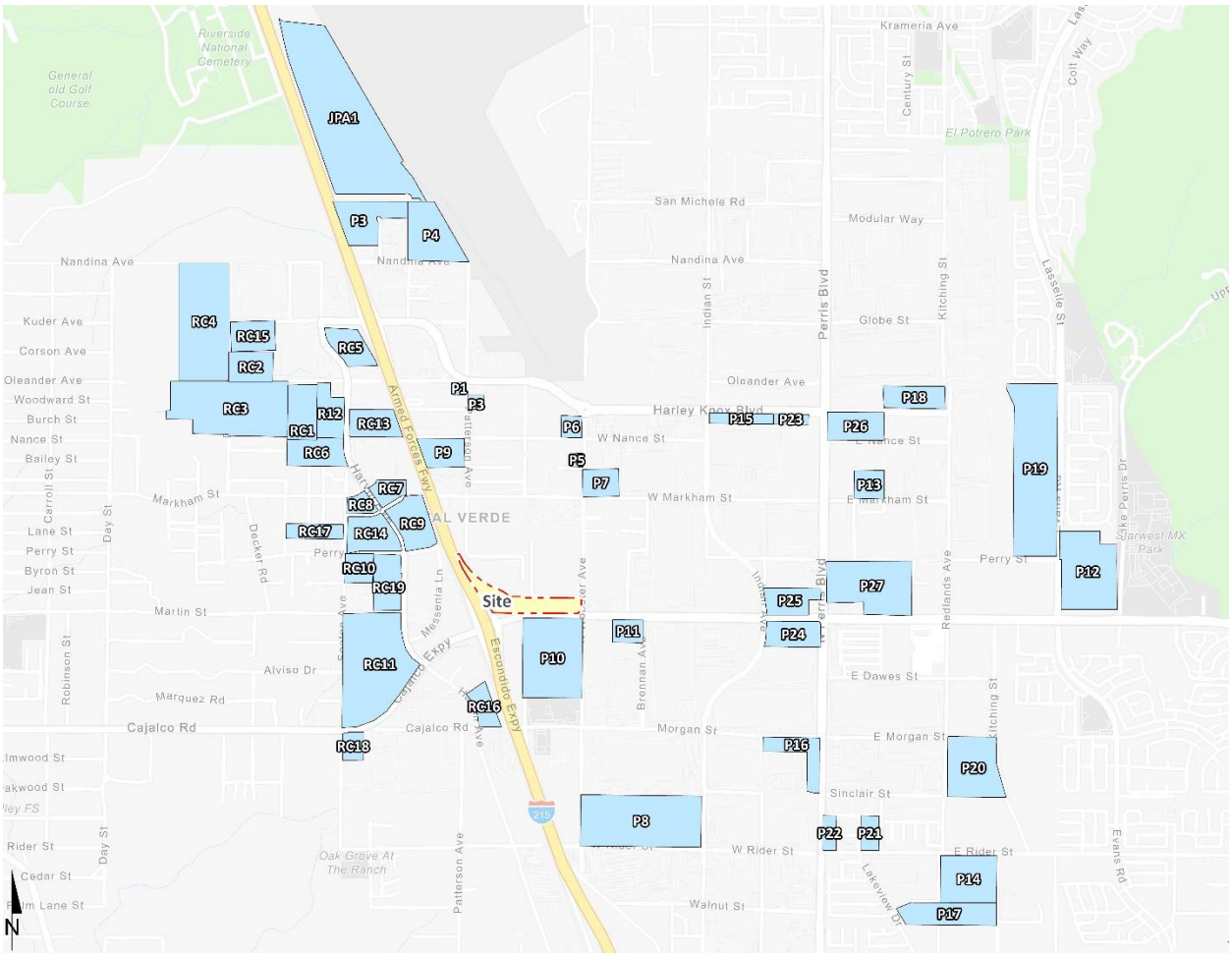
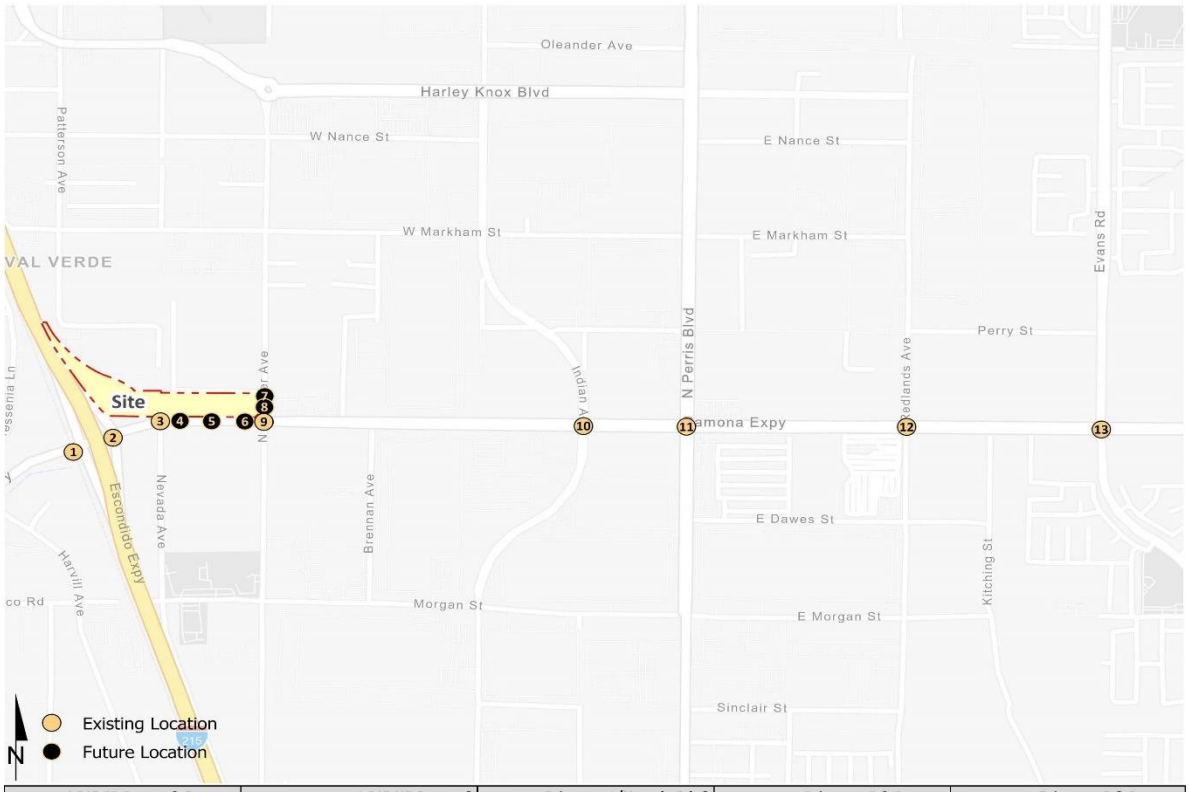


EXHIBIT 4-4: CUMULATIVE ONLY TRAFFIC VOLUMES



1 I-215 SB Ramps & Ramona Exwy.

30,550 | 14,650
- 195(74) ↲
- 588(391) ↳
- ← 271(181)
- ↰ 141(245)
- 136(283) →
- 61(202) ↴

24,950 | 3,850

2 I-215 NB Ramps & Ramona Exwy.

18,750 | 41,650
- ↱ 253(565)
- ← 220(296)
- 58(195) ↳
- 666(482) →
- ↰ 191(80)
- ↱ 182(114)

41,150 | 3,450

3 Driveway 1/Nevada Rd. & Ramona Exwy.

44,100
- ← 220(206)
- ↰ 16(10)
- 1102(697) →
- 41(24) ↴
- ↰ 27(32)
- ↱ 11(12)

41,650 | 250

4 Driveway 2 & Ramona Exwy.

44,100
- ← 108(113)
- 902(534) →

44,100

5 Driveway 3 & Ramona Exwy.

44,250
- ← -128(-35)
- ↰ 242(142)
- 856(534) →
- 173(104) ↴
- ↰ 313(203)
- ↱ 275(166)

44,100 | 8,300

6 Driveway 4 & Ramona Exwy.

42,400
- ← 105(99)
- 783(469) →

42,450

7 Webster Av. & Driveway 5

650
- ↓ 36(12)
- → 53(34)

650

8 Webster Av. & Driveway 6

700
- ↓ 43(19)
- → 26(11)

550

9 Webster Av. & Ramona Exwy.

550 | 60,900
- ↲ 8(0)
- ↓ 18(11)
- ↳ 8(1)
- ↱ 3(13)
- ← 435(861)
- ↰ 45(21)
- 14(0) ↳
- 708(390) →
- 61(87) ↴
- ↰ 19(93)
- ↑ 13(10)
- ↱ 24(31)

60,900 | 2,050

10 Indian Av. & Ramona Exwy.

1,850 | 60,250
- ↲ 107(128)
- ↓ 18(7)
- ↳ 51(132)
- ↱ 76(141)
- ← 379(604)
- ↰ 20(18)
- 160(311) ↳
- 631(477) →
- 4(4) ↴
- ↰ 3(30)
- ↑ 6(122)
- ↱ 31(17)

60,900 | 1,300

11 Perris Bl. & Ramona Exwy.

9,600 | 60,250
- ↲ 134(138)
- ↓ 62(76)
- ↳ 219(167)
- ↱ 112(154)
- ← 294(531)
- ↰ 62(44)
- 173(148) ↳
- 464(393) →
- 76(86) ↴
- ↰ 67(110)
- ↑ 135(112)
- ↱ 11(25)

60,600 | 4,800

12 Redlands Av. & Ramona Exwy.

9,000 | 62,050
- ↲ 64(72)
- ↓ 107(50)
- ↳ 128(87)
- ↱ 70(126)
- ← 466(606)
- ↰ 50(83)
- 241(152) ↳
- 512(557) →
- 30(25) ↴
- ↰ 47(67)
- ↑ 28(80)
- ↱ 85(61)

59,350 | 6,000

13 Evans Rd. & Ramona Exwy.

13,550 | 63,550
- ↲ 34(16)
- ↳ 78(43)
- ↱ 23(94)
- ← 517(781)
- 20(21) ↳
- 686(663) →
- 20(21) ↴
- ↰ 34(16)

60,750 | 32,150

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for E+P conditions and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and turn-pocket queueing analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. The weekday ADT and weekday/weekend peak hour intersection turning movement volumes which can be expected for E+P traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

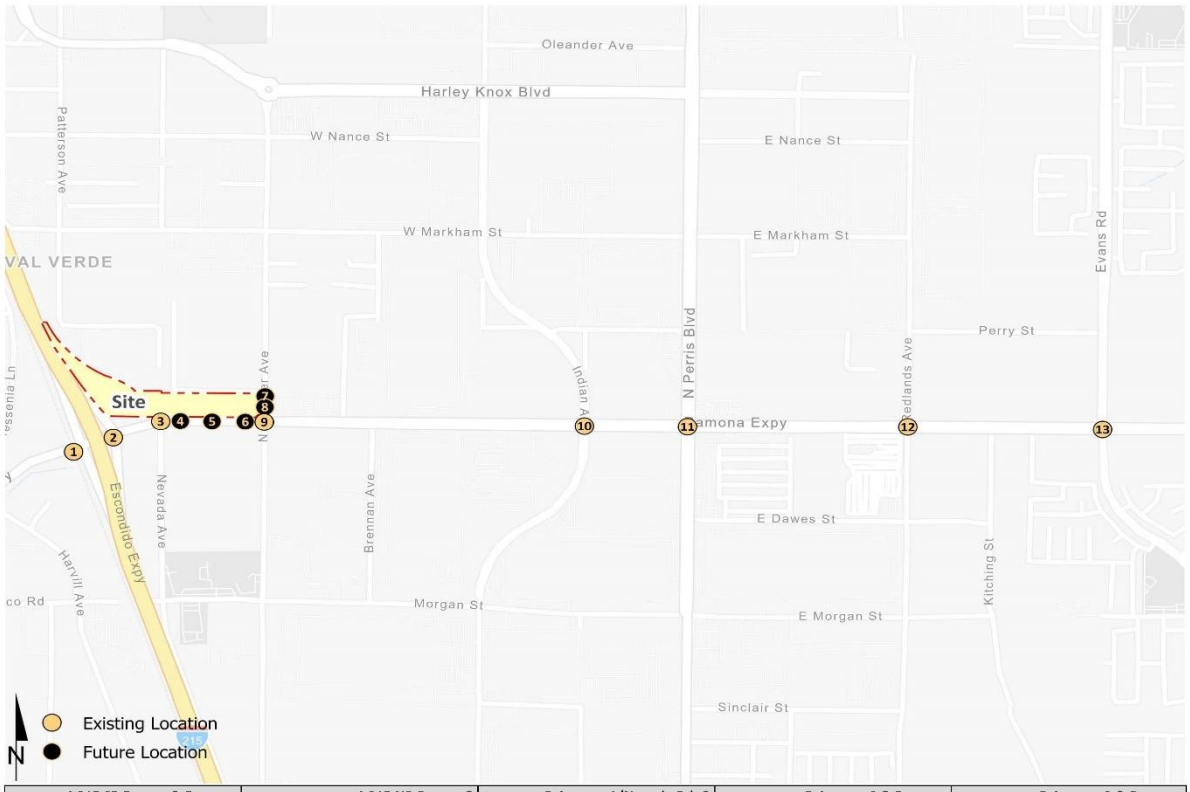
E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized on Table 5-1 for E+P traffic conditions, which indicate that all of the study area intersections are anticipated to continue to operate at an acceptable LOS under E+P traffic conditions, consistent with Existing traffic conditions. The intersection operations analysis worksheets for E+P Conditions are included in Appendix 5.1.

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

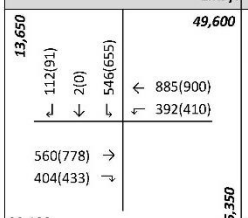
Traffic signal warrants have been performed for E+P traffic conditions based on peak hour intersection turning movements volumes or planning level (ADT) volumes. The following study area intersections are anticipated to meet a traffic signal warrant under E+P traffic conditions (see Appendix 5.2):

- Nevada Avenue/Driveway 1 & Ramona Expressway (#3)
- Driveway 3 & Ramona Expressway (#5)

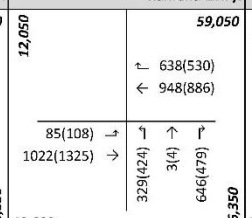
EXHIBIT 5-1: E+P TRAFFIC VOLUMES



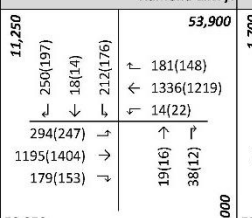
1 I-215 SB Ramps & Ramona Exwy.



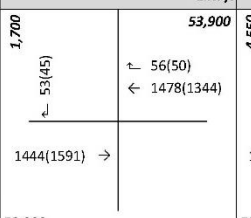
2 I-215 NB Ramps & Ramona Exwy.



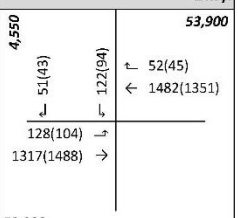
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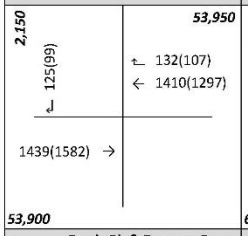
4 Driveway 2 & Ramona Exwy.



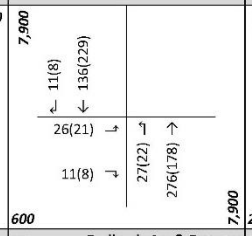
5 Driveway 3 & Ramona Exwy.



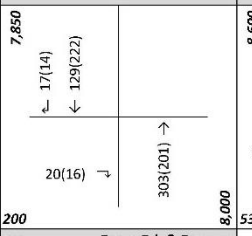
6 Driveway 4 & Ramona Exwy.



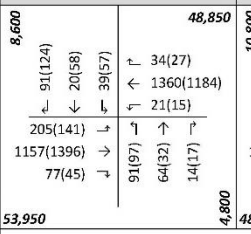
7 Webster Av. & Driveway 5



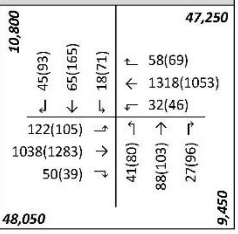
8 Webster Av. & Driveway 6



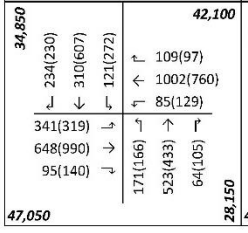
9 Webster Av. & Ramona Exwy.



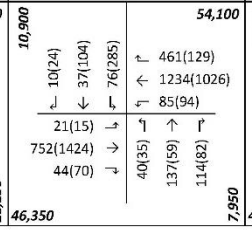
10 Indian Av. & Ramona Exwy.



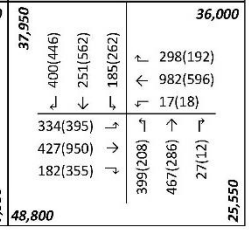
11 Perris Bl. & Ramona Exwy.



12 Redlands Av. & Ramona Exwy.



13 Evans Rd. & Ramona Exwy.



##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 5-1: INTERSECTION ANALYSIS FOR E+P CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2023) Delay[1] (secs.) AM	Existing (2023) Delay[1] (secs.) PM	Existing (2023) Level of Service AM	Existing (2023) Level of Service PM	E+P Delay[1] (secs.) AM	E+P Delay[1] (secs.) PM	E+P Level of Service AM	E+P Level of Service PM
1	I-215 SB Ramps & Ramona Exwy.	TS	25.7	30.6	C	C	30.2	35.7	C	D
2	I-215 NB Ramps & Ramona Exwy.	TS	19.3	16.4	B	B	20.9	17.0	C	B
3	Driveway 1/Nevada Rd. & Ramona Exwy.	CSS/**TS**	16.3	17.5	C	C	25.3	20.4	C	C
4	Driveway 2 & Ramona Exwy.	**CSS**	Future Intersection				22.2	19.3	C	C
5	Driveway 3 & Ramona Exwy.	**TS**	Future Intersection				10.4	9.4	B	A
6	Driveway 4 & Ramona Exwy.	**CSS**	Future Intersection				31.9	23.8	D	C
7	Webster Av. & Driveway 5	**CSS**	Future Intersection				10.9	10.9	B	B
8	Webster Av. & Driveway 6	**CSS**	Future Intersection				9.1	9.7	A	A
9	Webster Av. & Ramona Exwy.	TS	20.1	18.9	C	B	22.4	20.0	C	C
10	Indian Av. & Ramona Exwy.	TS	17.0	19.5	B	B	17.3	19.7	B	B
11	Perris Bl. & Ramona Exwy.	TS	43.3	43.7	D	D	44.0	43.5	D	D
12	Redlands Av. & Ramona Exwy.	TS	16.3	25.6	B	C	16.5	26.1	B	C
13	Evans Rd. & Ramona Exwy.	TS	36.1	25.6	D	C	38.4	26.4	D	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop; **TS** = Improvement

5.5 QUEUING ANALYSIS

5.5.1 OFF-RAMPS

Off-ramp queuing analysis findings for E+P are presented on Table 5-2. As shown on Table 5-2, there are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic. Worksheets for E+P traffic conditions queuing analysis are provided in Appendices 5.4.

TABLE 5-2: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR E+P CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2023) 95th Percentile Queue (Feet) AM Peak	Existing (2023) 95th Percentile Queue (Feet) PM Peak	Existing (2023) Acceptable?[1] AM	Existing (2023) Acceptable?[1] PM	E+P 95th Percentile Queue (Feet) AM Peak	E+P 95th Percentile Queue (Feet) PM Peak	E+P Acceptable?[1] AM	E+P Acceptable?[1] PM
I-215 SB Ramps & Ramona Exwy.	SBL	510	242	336 [2]	Yes	Yes	320 [2]	414 [2]	Yes	Yes
	SBL/T	1,110	245	336 [2]	Yes	Yes	325 [2]	414 [2]	Yes	Yes
	SBR	510	47	43	Yes	Yes	46	42	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	NBL	1,120	128	181	Yes	Yes	123	178	Yes	Yes
	NBL/T	510	131	186	Yes	Yes	126	183	Yes	Yes
	NBR	510	479 [2]	323	Yes	Yes	621 [2,3]	393	Yes	Yes

1 Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

2 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

5.5.1 ROADWAYS

Turn pocket queuing analysis findings for E+P are presented on Table 5-3. As shown on Table 5-3, the following additional movements are anticipated to experience turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic, in addition to the movements previously identified under Existing Conditions:

- Nevada Road & Ramona Expressway (#3) eastbound left-turn – AM and PM peak hours
- Evans Road & Ramona Expressway (#13) northbound left -turn – AM peak hour only

Worksheets for E+P traffic conditions turn pocket queuing analysis are also provided in Appendices 5.4.

TABLE 5-3: PEAK HOUR TURN POCKET QUEUING SUMMARY FOR E+P CONDITIONS

Intersection	Movement[4]	Available Stacking Distance (Feet)[4]	Existing (2023) 95th Percentile Queue (Feet) AM Peak	Existing (2023) 95th Percentile Queue (Feet) PM Peak	Existing (2023) Acceptable? [1] AM	Existing (2023) Acceptable? [1] PM	E+P 95th Percentile Queue (Feet) AM Peak	E+P 95th Percentile Queue (Feet) PM Peak	E+P Acceptable? [1] AM	E+P Acceptable? [1] PM
I-215 SB Ramps & Ramona Exwy.	WBL	115	125	**348** [2]	Yes	**No**	**140**	**438** [2]	**No**	**No**
I-215 NB Ramps & Ramona Exwy.	EBL	115	106 [3]	98 [3]	Yes	Yes	90 [3]	90 [3]	Yes	Yes
	WBR	155	**195**	133	**No**	Yes	**313**	**190**	**No**	**No**
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	125	0	0	Yes	Yes	**424** [2]	**365** [2]	**No**	**No**
	WBL	130	3	5	Yes	Yes	33	46	Yes	Yes
Driveway 3 & Ramona Exwy.	*EBL*	*150*	Future Intersection				169	141	Yes	Yes
Webster Av. & Ramona Exwy.	NBL	200	169 [2]	181 [2]	Yes	Yes	195 [2]	201 [2]	Yes	Yes
	SBL	130	63 [2]	114 [2]	Yes	Yes	0	127 [2]	Yes	Yes
	EBL	200	**354** [2]	**253** [2]	**No**	**No**	**374** [2]	**272**	**No**	**No**
	WBL	200	44	36	Yes	Yes	44	36	Yes	Yes
Indian Av. & Ramona Exwy.	NBL	195	146	106	Yes	Yes	71	113	Yes	Yes
	SBL	185	40	106	Yes	Yes	41	106	Yes	Yes
	SBR	175	0	0	Yes	Yes	0	0	Yes	Yes
	EBL	190	146	134	Yes	Yes	159	142	Yes	Yes
	WBL	280	59	77	Yes	Yes	59	77	Yes	Yes
	WBR	260	0	0	Yes	Yes	0	0	Yes	Yes
Perris Bl. & Ramona Exwy.	NBL	350	94	93	Yes	Yes	106	106	Yes	Yes
	NBR	150	0	9	Yes	Yes	0	9	Yes	Yes
	SBL	200	80	158	Yes	Yes	80	157	Yes	Yes
	SBR	145	55	64	Yes	Yes	57	66	Yes	Yes
	EBL	330	173	172	Yes	Yes	185	179	Yes	Yes
	EBR	215	0	20	Yes	Yes	0	31	Yes	Yes
	WBL	300	53	87	Yes	Yes	54	87	Yes	Yes
Redlands Av. & Ramona Exwy.	NBL	200	58	55	Yes	Yes	68	63	Yes	Yes
	SBL	280	104	**416** [2]	Yes	**No**	106	**421** [2]	Yes	**No**
	EBL	315	37	32	Yes	Yes	43	36	Yes	Yes
	EBR	315	0	0	Yes	Yes	0	0	Yes	Yes
	WBL	300	118	184 [2]	Yes	Yes	115	187 [2]	Yes	Yes
	WBR	260	77	33	Yes	Yes	74	34	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	200	196 [2]	117	Yes	Yes	**234** [2]	122	**No**	Yes
	SBL	215	114	147	Yes	Yes	114	147	Yes	Yes
	SBR	215	**266**	166	**No**	Yes	**284**	178	**No**	Yes
	EBL	325	196 [2]	202	Yes	Yes	202 [2]	206	Yes	Yes
	EBR	330	44	58	Yes	Yes	45	59	Yes	Yes
	WBL	310	39	39	Yes	Yes	39	39	Yes	Yes
	WBR	200	121	56	Yes	Yes	122	56	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] *Italics* = Recommended Stacking Distance for Project Driveway

5.6 DEFICIENCIES AND IMPROVEMENTS

5.6.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours. As such, no improvements have been identified.

5.6.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON TURN POCKET QUEUES

Improvement strategies have been recommended at turn pockets that been identified to experience queuing issues under E+P traffic conditions. The effectiveness of the recommended improvement strategies to address queuing deficiencies are presented in Table 5-4. It should be noted, improvements have only been identified if they are feasible, based on the existing geometry of the turn pockets.

TABLE 5-4: PEAK HOUR QUEUING SUMMARY FOR E+P CONDITIONS WITH IMPROVEMENTS

			Existing (2023)				E+P			
		Available Stacking	95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement	Distance (Feet)[4]	AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
Webster Av. & Ramona Exwy.	EBL	**450**	354 [2]	253 [2]	Yes	Yes	374 [2]	272	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	**300**	196 [2]	117	Yes	Yes	234 [2]	122	Yes	Yes
	SBR	**425**	266	166	Yes	Yes	284	178	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] **100** = Improvement

6 EAC AND EAPC (2026) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for EAC and EAPC (2026) traffic conditions and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and turn-pocket queueing analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAC and EAPC (2026) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC (2026) conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).

6.2 EAC AND EAPC (2026) TRAFFIC VOLUME FORECASTS

6.2.1 EAC (2026) TRAFFIC CONDITIONS

This scenario includes Existing traffic volumes plus an ambient growth factor of 9.27% and the addition of traffic generated by cumulative development projects. The weekday ADT and weekday peak hour intersection turning movement volumes, in actual vehicles, which can be expected for EAC (2026) traffic conditions are shown on Exhibit 6-1.

6.2.2 EAPC (2026) TRAFFIC CONDITIONS

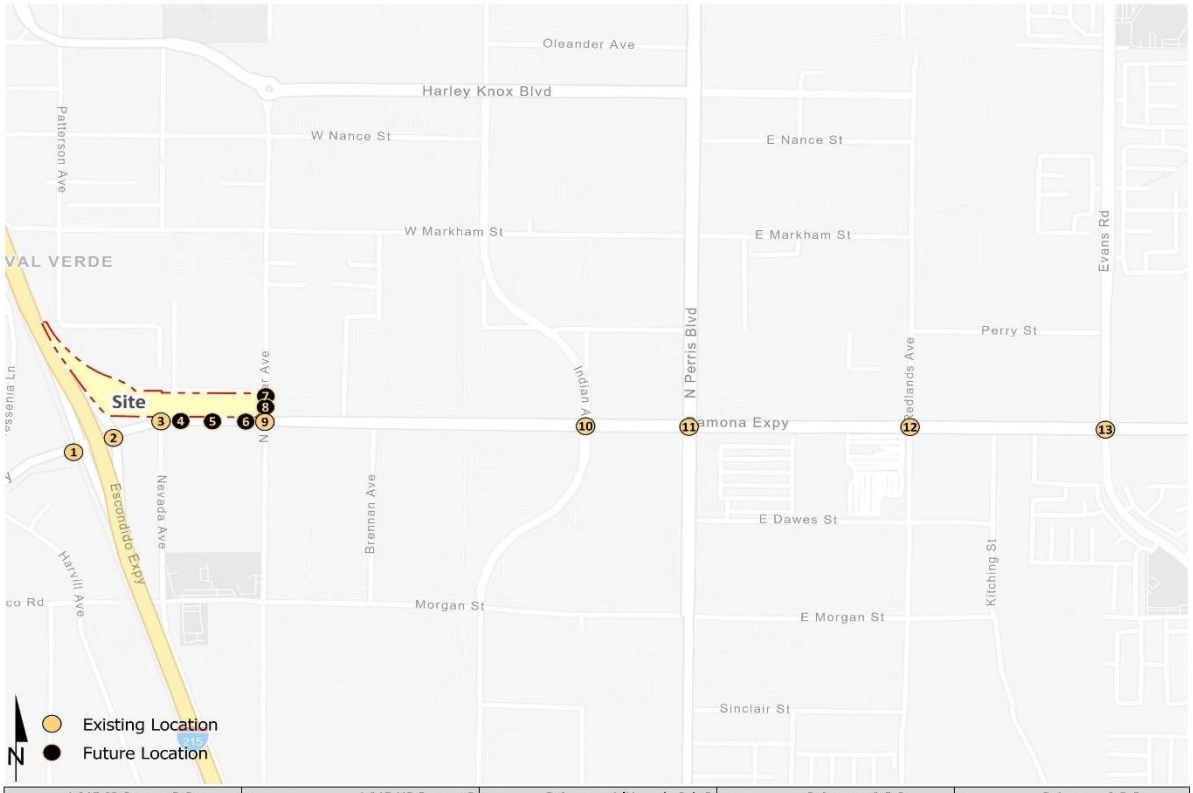
This scenario includes Existing traffic volumes plus an ambient growth factor of 9.27%, the addition of traffic generated by cumulative development projects, and the addition of Project traffic. The weekday ADT and weekday peak hour intersection turning movement volumes, in actual vehicles, which can be expected for EAPC (2026) traffic conditions are shown on Exhibit 6-2.

6.3 INTERSECTION OPERATIONS ANALYSIS

EAC and EAPC (2026) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-1 for EAC (2026) traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours:

- I-215 Southbound Ramps & Ramona Expressway (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) – LOS E AM and PM peak hours
- Nevada Road & Ramona Expressway (#3) – LOS F AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) – LOS E PM peak hour only
- Perris Boulevard & Ramona Expressway (#11) – LOS E AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) – LOS F AM and PM peak hours
- Evans Road & Ramona Expressway (#13) – LOS F AM peak hour; LOS E PM peak hour

EXHIBIT 6-1: EAC (2026) TRAFFIC VOLUMES



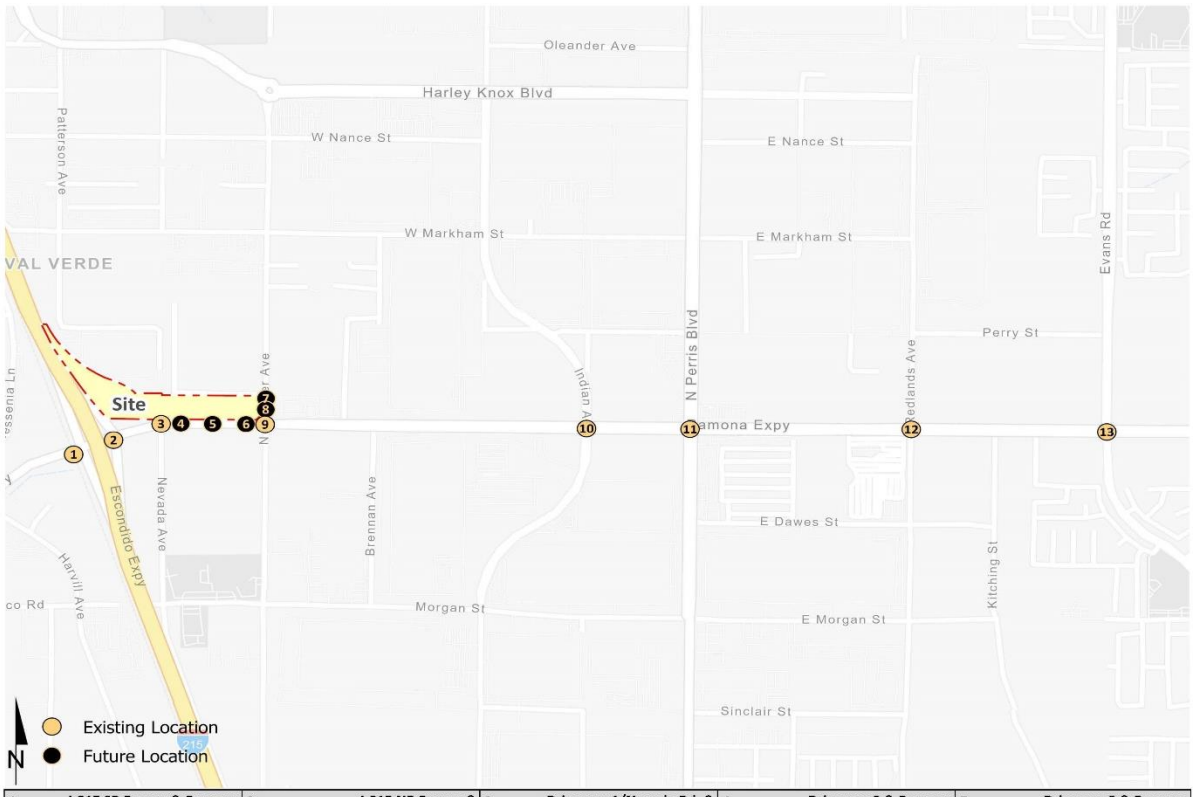
1 I-215 SB Ramps & Ramona Exwy.	2 I-215 NB Ramps & Ramona Exwy.	3 Driveway 1/Nevada Rd. & Ramona Exwy.	4 Driveway 2 & Ramona Exwy.	5 Driveway 3 & Ramona Exwy.
42,000 / 59,900	28,650 / 92,800	93,000	93,000	93,100
317(173) ↲ 2(0) ↓ 1058(1002) ↳	↱ 832(1056)	← 1737(1590)	← 1640(1522)	← 1404(1374)
← 1218(1149)	← 1158(1190)	↰ 31(34)		↰ 242(142)
↰ 491(634)	151(313) ↳ ↰ ↑ ↱			
727(1116) →	1634(1807) → 551(543) 3(4) 803(567)	2495(2308) → ↰ 27(32) ↱ 53(25)	2337(2158) →	2291(2158) → ↰ ↱
502(675) ↴		237(191) ↴		173(104) ↴ 313(203) 275(166)
17,800	18,350	3,550		8,300
63,350	86,400	92,800	93,000	93,000

6 Driveway 4 & Ramona Exwy.	7 Webster Av. & Driveway 5	8 Webster Av. & Driveway 6	9 Webster Av. & Ramona Exwy.	10 Indian Av. & Ramona Exwy.
91,250	7,850	7,900	8,400 / 105,300	12,250 / 103,900
← 1637(1508)	← 175(253)	← 182(260)	↲ 94(125) ↓ 35(71) ↳ 43(58)	↱ 139(216)
			↱ 36(39)	← 143(219) ↓ 89(187) ↳ 71(210) ← 1713(1667)
2218(2093) →	363(237) →	336(214) →	← 1794(2050)	↰ 55(68)
			↰ 68(37)	
			226(145) ↳ ↰ ↑ ↱	281(417) ↳ ↰ ↑ ↱
			1859(1829) → 105(188) 79(42) 39(50)	1667(1804) → 35(106) 102(235) 61(122)
			133(127) ↴	47(38) ↴
91,350	7,850	7,750	109,750 / 6,300	104,500 / 10,300

11 Perris Bl. & Ramona Exwy.	12 Redlands Av. & Ramona Exwy.	13 Evans Rd. & Ramona Exwy.
43,550 / 100,500	19,800 / 114,700	51,050 / 98,950
365(369) ↲ 401(739) ↓ 351(464) ↳	71(95) ↲ 147(164) ↓ 211(398) ↳	458(493) ↲ 274(614) ↓ 280(329) ↳
↱ 231(260)	↱ 574(267)	↱ 349(304)
← 1334(1317)	← 1772(1692)	← 1573(1418)
↰ 155(185)	↰ 143(186)	↰ 19(20)
522(479) ↳ ↰ ↑ ↱	260(165) ↳ ↰ ↑ ↱	372(443) ↳ ↰ ↑ ↱
1121(1436) → 229(271) 706(585) 81(140)	1294(2084) → 82(99) 178(144) 210(151)	1137(1689) → 457(233) 510(313) 30(13)
156(221) ↴	70(96) ↴	206(400) ↴
32,100	13,650	57,300
104,050	103,800	108,100

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

EXHIBIT 6-2: EAPC (2026) TRAFFIC VOLUMES



1 I-215 SB Ramps & Ramona Exwy.	2 I-215 NB Ramps & Ramona Exwy.	3 Driveway 1/Nevada Rd. & Ramona Exwy.	4 Driveway 2 & Ramona Exwy.	5 Driveway 3 & Ramona Exwy.
44,200 / 64,250	30,800 / 100,700	11,250 / 98,000	1,700 / 98,000	4,550 / 98,150
317(173) ↲ 2(0) ↓ 1174(1098) ↳	↱ 940(1137) ← 1248(1258)	250(197) ↲ 18(14) ↓ 212(176) ↳	53(45) ↲	51(43) ↲ 122(94) ↳
← 1236(1163)		↱ 181(148) ← 1685(1542)	↱ 56(50) ← 1716(1577)	↱ 52(45) ← 1484(1436)
↰ 563(688)		↰ 31(34)		↰ 242(142)
	151(313) ↳ ↰ ↑ ↱	294(247) ↳ ↰ ↑ ↱		128(104) ↳ ↰ ↱
746(1132) →	1770(1919) → 551(543) 3(4) 881(631)	2415(2237) → 27(32) 19(16) 53(25)	2468(2262) →	2295(2159) →
502(675) ↴		237(191) ↴		173(104) ↴ 313(203) 275(166)
64,050 / 19,200	90,700 / 19,800	100,700 / 4,250	98,000	98,000 / 8,300

6 Driveway 4 & Ramona Exwy.	7 Webster Av. & Driveway 5	8 Webster Av. & Driveway 6	9 Webster Av. & Ramona Exwy.	10 Indian Av. & Ramona Exwy.
2,150 / 96,350	8,550	8,550	9,200 / 109,750	12,700 / 107,500
125(99) ↲	11(8) 184(261) ↲ ↓	17(14) ↲ 184(261) ↓	106(135) ↲ 39(74) ↓ 50(63) ↳	155(229) ↲ 89(187) ↓ 71(210) ↳
↱ 132(107) ← 1645(1516)			↱ 40(42) ← 1910(2146)	↱ 139(216) ← 1810(1747)
	26(21) ↳ ↰ ↑		↰ 68(37)	↰ 55(68)
2344(2188) →	11(8) ↴ 27(22) 355(229)	20(16) ↴ 355(229) ↑	237(153) ↳ ↰ ↑ ↱	292(425) ↳ ↰ ↑ ↱
			1963(1908) → 117(198) 83(45) 39(50)	1757(1872) →
			144(135) ↴	58(46) ↴ 47(116) 102(235) 61(122)
96,350	600 / 8,550	200 / 8,550	114,850 / 6,850	108,950 / 10,750

11 Perris Bl. & Ramona Exwy.	12 Redlands Av. & Ramona Exwy.	13 Evans Rd. & Ramona Exwy.
44,400 / 102,350	19,950 / 116,150	51,500 / 99,550
388(388) ↲ 401(739) ↓ 351(464) ↳	75(98) ↲ 147(164) ↓ 211(398) ↳	470(503) ↲ 274(614) ↓ 280(329) ↳
↱ 231(260) ← 1384(1358)	↱ 574(267) ← 1811(1724)	↱ 349(304) ← 1589(1431)
↰ 155(185)	↰ 143(186)	↰ 19(20)
544(495) ↳ ↰ ↑ ↱	264(168) ↳ ↰ ↑ ↱	383(451) ↳ ↰ ↑ ↱
1168(1471) → 252(290) 706(585) 81(140)	1330(2111) → 90(105) 178(144) 210(151)	1151(1700) → 469(243) 510(313) 30(13)
178(237) ↴	77(101) ↴	217(408) ↴
107,650 / 32,950	105,700 / 13,900	109,550 / 57,700

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS

#	Intersection	Traffic Control[2]	EAC (2026) Delay[1] (secs.) AM	EAC (2026) Delay[1] (secs.) PM	EAC (2026) Level of Service AM	EAC (2026) Level of Service PM	EAPC (2026) Delay[1] (secs.) AM	EAPC (2026) Delay[1] (secs.) PM	EAPC (2026) Level of Service AM	EAPC (2026) Level of Service PM
1	I-215 SB Ramps & Ramona Exwy.	TS	**96.4**	**136.2**	**F**	**F**	**113.6**	**160.1**	**F**	**F**
2	I-215 NB Ramps & Ramona Exwy.	TS	**62.5**	**71.4**	**E**	**E**	**111.5**	**96.6**	**F**	**F**
3	Driveway 1/Nevada Rd. & Ramona Exwy.	CSS/**TS**	**>100.0**	**>100.0**	**F**	**F**	54.2	48.5	D	D
4	Driveway 2 & Ramona Exwy.	**CSS**	Future Intersection				27.1	23.0	D	C
5	Driveway 3 & Ramona Exwy.	**TS**	38.8	13.2	D	B	49.0	24.9	D	C
6	Driveway 4 & Ramona Exwy.	**CSS**	Future Intersection				33.9	30.2	D	D
7	Webster Av. & Driveway 5	**CSS**	Future Intersection				11.6	11.4	B	B
8	Webster Av. & Driveway 6	**CSS**	Future Intersection				9.4	9.9	A	A
9	Webster Av. & Ramona Exwy.	TS	30.0	37.5	C	D	33.6	42.8	C	D
10	Indian Av. & Ramona Exwy.	TS	27.5	**67.0**	C	**E**	30.3	**70.2**	C	**E**
11	Perris Bl. & Ramona Exwy.	TS	**71.8**	**71.4**	**E**	**E**	**80.4**	**84.9**	**F**	**F**
12	Redlands Av. & Ramona Exwy.	TS	**80.3**	**120.1**	**F**	**F**	**86.2**	**120.7**	**F**	**F**
13	Evans Rd. & Ramona Exwy.	TS	**101.2**	**79.0**	**F**	**E**	**104.3**	**83.5**	**F**	**F**

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop

With the addition of Project traffic, there are no additional study area intersections anticipated to operate at an unacceptable LOS during the peak hours under EAPC (2026) traffic conditions. The intersection operations analysis worksheets for EAC and EAPC (2026) traffic conditions are included in Appendices 6.1 and 6.2, respectively. It should be noted, the Project design feature to construct a traffic signal at Nevada Avenue/Driveway 1 & Ramona Expressway (#3) is anticipated to improve the intersection to an acceptable LOS under EAPC (2026) traffic conditions.

6.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been met for all existing unsignalized intersections. As such, traffic signal warrants have not been performed for EAC (2026) traffic conditions. Traffic signal warrants have been performed for EAPC (2026) traffic conditions for proposed intersections based on planning level (ADT) volumes. There are no unsignalized study area intersections anticipated to meet a traffic signal warrant under EAPC (2026) traffic conditions, in addition to the intersections identified previously under Existing and E+P traffic conditions. EAPC (2026) traffic signal warrant analysis worksheets are provided in Appendix 6.3.

6.5 QUEUING ANALYSIS

6.5.1 OFF-RAMPS

Off-ramp queuing analysis findings for EAC and EAPC (2026) are presented in Table 6-2. As shown in Table 6-2, there are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAC and EAPC (2026) traffic conditions. Worksheets for EAC and EAPC (2026) traffic conditions queuing analysis for are provided in Appendices 6.4 and 6.5, respectively.

TABLE 6-2: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR EAPC (2026) CONDITIONS

			EAC (2026)				EAPC (2026)			
		Available Stacking Distance	95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement	(Feet)	AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Ramps & Ramona Exwy.	SBL	510	808 [2,3]	727 [2,3]	Yes	Yes	887 [2,3]	803 [2,3]	Yes	Yes
	SBL/T	1,110	810 [2]	727 [2]	Yes	Yes	889 [2]	803 [2]	Yes	Yes
	SBR	510	316 [2]	103	Yes	Yes	308 [2]	106	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	NBL	1,120	215	234	Yes	Yes	208	230	Yes	Yes
	NBL/T	510	217	238	Yes	Yes	209	234	Yes	Yes
	NBR	510	897 [2,3]	572 [2,3]	Yes	Yes	1,004 [2,3]	667 [2,3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

6.5.1 ROADWAYS

Turn pocket queuing analysis findings for EAC and EAPC (2026) are presented in Table 6-2. As shown in Table 6-3, the following movements are anticipated to experience turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAC (2026) traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) eastbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM and PM peak hours
- Webster Avenue & Ramona Expressway (#9) eastbound left turn lane – AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) southbound left-turn – PM peak hour only
- Indian Avenue & Ramona Expressway (#10) eastbound left-turn – AM and PM peak hours
- Perris Boulevard & Ramona Expressway (#11) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) westbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) northbound left-turn – AM peak hour only

- Evans Road & Ramona Expressway (#13) southbound right-turn – AM and PM peak hours

TABLE 6-3: PEAK HOUR TURN POCKET QUEUING SUMMARY FOR EAPC (2026) CONDITIONS

Intersection	Movement[4]	Available Stacking Distance (Feet)[4]	EAC (2026) 95th Percentile Queue (Feet) AM Peak	EAC (2026) 95th Percentile Queue (Feet) PM Peak	EAC (2026) Acceptable? [1] AM	EAC (2026) Acceptable? [1] PM	EAPC (2026) 95th Percentile Queue (Feet) AM Peak	EAPC (2026) 95th Percentile Queue (Feet) PM Peak	EAPC (2026) Acceptable? [1] AM	EAPC (2026) Acceptable? [1] PM
I-215 SB Ramps & Ramona Exwy.	WBL	115	**157** [3]	**576** [2,3]	**No**	**No**	**137** [3]	**594** [2,3]	**No**	**No**
I-215 NB Ramps & Ramona Exwy.	EBL	115	115 [3]	**189** [2,3]	Yes	**No**	105 [3]	**192** [2,3]	Yes	**No**
	WBR	155	**520** [3]	**855** [2,3]	**No**	**No**	**796** [2]	**972** [2]	**No**	**No**
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	125	0	0	Yes	Yes	**455** [2]	**437** [2]	**No**	**No**
	WBL	130	20	20	Yes	Yes	58	70 [2]	Yes	Yes
Driveway 3 & Ramona Exwy.	EBL	225	Future Movement				171	142	Yes	Yes
Webster Av. & Ramona Exwy.	NBL	200	223 [2,5]	390 [2,5]	Yes	Yes	247 [2,4]	411 [2,4]	Yes	Yes
	SBL	130	90 [2]	130 [2]	Yes	Yes	106 [2]	141 [2]	Yes	Yes
	EBL	200	**416** [2]	**278** [2]	**No**	**No**	**436** [2]	**296** [2]	**No**	**No**
	WBL	200	139 [2]	73 [2]	Yes	Yes	139 [2]	76 [2]	Yes	Yes
Indian Av. & Ramona Exwy.	NBL	195	63	174 [2]	Yes	Yes	78	170 [2]	Yes	Yes
	SBL	185	153 [2]	**376** [2]	Yes	**No**	158 [2]	**382** [2]	Yes	**No**
	SBR	175	35	55	Yes	Yes	44	58	Yes	Yes
	EBL	190	**460** [2]	**747** [2]	**No**	**No**	**490** [2]	**750** [2]	**No**	**No**
	WBL	280	103 [2]	111 [2]	Yes	Yes	102 [2]	124 [2]	Yes	Yes
	WBR	260	28	94	Yes	Yes	28	93	Yes	Yes
Perris Bl. & Ramona Exwy.	NBL	350	159 [2]	207 [2]	Yes	Yes	200 [2]	215 [2]	Yes	Yes
	NBR	150	0	36	Yes	Yes	0	37	Yes	Yes
	SBL	200	**290** [2]	**347** [2]	**No**	**No**	**259** [2]	**323** [2]	**No**	**No**
	SBR	145	72	145	Yes	Yes	103	152	Yes	Yes
	EBL	330	340 [2]	346 [2]	Yes	Yes	349 [2]	330 [2]	Yes	Yes
	EBR	215	36	82	Yes	Yes	50	90	Yes	Yes
	WBL	300	114 [2]	118 [2]	Yes	Yes	95 [2]	128 [2]	Yes	Yes
Redlands Av. & Ramona Exwy.	NBL	200	161 [2]	208 [2]	Yes	Yes	169 [2]	213 [2]	Yes	Yes
	SBL	280	**334** [2]	**628** [2]	**No**	**No**	**352** [2]	**631** [2]	**No**	**No**
	EBL	315	**509** [2]	**361** [2]	**No**	**No**	**532** [2]	**362** [2]	**No**	**No**
	EBR	315	0	9	Yes	Yes	0	13	Yes	Yes
	WBL	300	237 [2]	**377** [2]	Yes	**No**	208 [2]	**377** [2]	Yes	**No**
	WBR	260	246	114	Yes	Yes	235	118	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	200	**296** [2]	136	**No**	Yes	**300** [2]	141	**No**	Yes
	SBL	215	192 [2]	191 [2]	Yes	Yes	192 [2]	191 [2]	Yes	Yes
	SBR	215	**395** [2]	**266**	**No**	**No**	**426** [2]	**279**	**No**	**No**
	EBL	325	244 [2]	232	Yes	Yes	250 [2]	236	Yes	Yes
	EBR	330	47	87	Yes	Yes	48	90	Yes	Yes
	WBL	310	42	42	Yes	Yes	42	42	Yes	Yes
	WBR	200	205	201	Yes	Yes	205	201	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] A two-way left-turn lane is present and contains sufficient storage to accommodate the 95th Percentile Queue.

With the addition of Project traffic, the following movements are anticipated to experience queuing issues under EAPC (2026) traffic conditions:

- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours

Worksheets for EAC and EAPC (2026) traffic conditions queuing analysis for are also provided in Appendices 6.4 and 6.5, respectively.

6.6 DEFICIENCIES AND IMPROVEMENTS

Improvements needed to achieve acceptable LOS have been identified at intersections or off-ramps that are anticipated to operate at a deficient LOS under EAC and EAPC (2026) traffic conditions.

6.6.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Based on the City of Perris deficiency criteria discussed in Section 2.6 *Deficiency Criteria*, roadway intersections were found to be deficient. Improvements necessary to improve project-related traffic deficiencies are shown in Table 6-4. Table 6-4 indicates the physical improvements needed to address LOS deficiencies at each of the study area intersections under EAPC (2026) traffic conditions. The improvements have been identified to improve the EAPC (2026) deficiencies back to acceptable levels. Intersection analysis worksheets for EAPC (2026) traffic conditions, with improvements, are provided in Appendix 6.6.

6.6.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON TURN POCKET QUEUES

Improvement strategies have been recommended at turn pockets that been identified to experience queuing issues under EAPC (2026) traffic conditions in an effort to achieve pre-Project delay or better. The effectiveness of the recommended improvement strategies to address EAPC (2026) off-ramp deficiencies are presented on Table 6-4. Worksheets for EAPC (2026) conditions, with improvements, turn pocket queueing analysis worksheets are provided in Appendix 6.7.

TABLE 6-4: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1 I-215 SB Ramps & Ramona Exwy.																	
- Without Improvements	TS	0	0	0	1	1	1	0	2	0	1	2	0	**113.6**	**160.1**	**F**	**F**
- With Improvements	TS	0	0	0	1	1	1	0	**3**	**1**	**2**	**3**	0	33.9	44.0	C	D
2 I-215 NB Ramps & Ramona Exwy.																	
- Without Improvements	TS	1	1	1	0	0	0	1	2	0	0	2	1	**111.5**	**96.6**	**F**	**F**
- With Improvements	TS	1	1	1	0	0	0	**2**	**3**	0	0	**3**	**1>>**	30.9	20.3	C	C
10 Indian Av. & Ramona Exwy.																	
- Without Improvements	TS	1	2	0	1	2	1	1	3	0	1	3	1	30.3	**70.2**	C	**E**
- With Improvements	TS	1	2	0	1	2	1	1	**4**	0	1	**4**	**0**	25.3	52.8	C	D
11 Perris Bl. & Ramona Exwy.																	
- Without Improvements	TS	2	2	1	2	2	1	2	3	1	2	3	0	**80.4**	**84.9**	**F**	**F**
- With Improvements	TS	2	**3**	**0**	2	**3**	**0**	2	3	1	2	3	0	52.7	53.4	D	D
12 Redlands Av. & Ramona Exwy.																	
- Without Improvements	TS	1	1	0	1	1	1	1	3	1	1	3	1	**86.2**	**120.7**	**F**	**F**
- With Improvements	TS	1	1	0	**2**	1	1	1	**4**	1	1	**4**	1	39.1	41.1	D	D
13 Evans Rd. & Ramona Exwy.																	
- Without Improvements	TS	2	2	0	2	2	1	2	3	1>>	1	2	1	**104.3**	**83.5**	**F**	**F**
- With Improvements	TS	2	2	0	2	2	1	2	3	1>>	1	**3**	1	46.3	40.1	D	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; >> = Free-Right Turn

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

TABLE 6-5: QUEUING SUMMARY FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

Intersection	Movement	Available Stacking Distance (Feet)[4]	With Improvements 95th Percentile Queue (Feet) AM Peak	PM Peak	Acceptable? [1] AM	PM
I-215 SB Ramps & Ramona Exwy.	WBL	**315**	179	318 [2]	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	EBL	**315**	94	147 [3]	Yes	Yes
Webster Av. & Ramona Exwy.	EBL	**450**	**436** [2]	**296** [2]	**Yes**	**Yes**
Evans Rd. & Ramona Exwy.	NBL	**300**	285 [2]	156 [2]	Yes	Yes
	SBR	**425**	424 [2]	330	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] **100** = Improvement

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7 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Perris are funded through a combination of project mitigation, development impact fee programs or fair share contributions, such as the City of Perris Development Impact Fee (DIF) program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

7.1 TRANSPORTATION UNIFORM MITIGATION FEE (TUMF) PROGRAM

The WRCOG is responsible for establishing and updating TUMF rates. The County may grant developers a credit against the specific components of fees for the dedication of land or the construction of facilities identified in the list of improvements funded by each of these fee programs. Fees are based upon projected land uses and a related transportation need to address growth based upon a 2016 Nexus study.

TUMF is an ambitious regional program created to address cumulative impacts of growth throughout western Riverside County. Program guidelines are being handled on an iterative basis. Exemptions, credits, reimbursements, and local administration are being deferred to primary agencies. The County of Riverside serves this function for the proposed Project. Fees submitted to the County are passed on to the WRCOG as the ultimate program administrator.

TUMF guidelines empower a local zone committee to prioritize and arbitrate certain projects. The Project is located in the Central Zone. The zone has developed a 5-year capital improvement program to prioritize public construction of certain roads. TUMF is focused on improvements necessitated by regional growth.

7.2 CITY OF PERRIS DEVELOPMENT IMPACT FEE (DIF) PROGRAM

In 1991, the City of Perris created a Development Impact Fee program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. This DIF program has been successfully implemented by the City since 1991 and was updated in 2014. The City updated the DIF program to add new roadway segments and intersections necessary to accommodate future growth and to ensure that the identified street improvements would operate at or above the City's LOS performance threshold. The City's DIF program includes facilities that are not part of, or which may exceed improvements identified and covered by the TUMF program. As a result, the pairing of the regional and local fee programs provides a more comprehensive funding and implementation plan to ensure an adequate and interconnected transportation system. Under the City's DIF program, the City may grant developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

Similar to the TUMF Program, after the City's DIF fees are collected, they are placed in a separate interest-bearing account pursuant to the requirements of Government Code sections 66000 *et seq*. The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and

consultants. The City uses this data to determine the timing of the improvements listed in its facilities list. The City also uses this data to ensure that the improvements listed on the facilities list are constructed before the LOS falls below the LOS performance standards adopted by the City. In this way, the improvements are constructed before the LOS falls below the City's LOS performance thresholds. The City's DIF program establishes a timeline to fund, design, and build the improvements.

The City has an established, proven track record with respect to implementing the City's DIF Program. Many of the roadway segments and intersections included within the study area for this Traffic Impact Analysis are at various stages of widening and improvement based on the City's collection of DIF fees. Under this Program, as a result of the City's continual monitoring of the local circulation system, the City ensures that DIF improvements are constructed prior to when the LOS would otherwise fall below the City's established performance criteria.

7.3 FAIR SHARE CONTRIBUTION

Project improvements may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, for the applicable deficient study area intersection are provided in Table 7-1. These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

TABLE 7-1: PROJECT FAIR SHARE CALCULATIONS FOR INTERSECTIONS

#	Intersection		Existing (2023)	Project Only	EAPC (2026)	Total New Traffic	Project % of New Traffic[1]
1	I-215 SB Ramps & Ramona Exwy.						
		AM:	2,676	225	4,541	1,865	**12.1%**
		PM:	3,087	180	4,929	1,842	9.8%
2	I-215 NB Ramps & Ramona Exwy.						
		AM:	3,259	412	5,543	2,284	**18.0%**
		PM:	3,431	325	5,806	2,375	13.7%
10	Indian Av. & Ramona Exwy.						
		AM:	2,669	233	4,635	1,966	**11.9%**
		PM:	3,019	184	5,473	2,454	7.5%
11	Perris Bl. & Ramona Exwy.						
		AM:	3,516	187	5,838	2,322	**8.1%**
		PM:	4,102	146	6,612	2,510	5.8%
12	Redlands Av. & Ramona Exwy.						
		AM:	2,913	98	5,109	2,196	**4.5%**
		PM:	3,271	76	5,616	2,345	3.2%
13	Evans Rd. & Ramona Exwy.						
		AM:	3,893	76	5,741	1,848	**4.1%**
		PM:	4,222	60	6,328	2,106	2.8%

[1] **BOLD =** Highest fair share percentage is highlighted.

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8 REFERENCES

1. **City of Perris.** *Transportation Impact Analysis Guidelines for CEQA.* City of Perris : s.n., May 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **VRPA Technologies, Inc. for Riverside County Transportation Commission.** *Riverside County Long Range Transportation Study.* County of Riverside : VRPA Technologies, Inc., December 2019.
4. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
5. **Caltrans.** California Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2017.
6. **City of Perris.** *General Plan Circulation Element.* City of Perris : s.n., August 26, 2008.
7. **Southern California Association of Governments (SCAG).** *2020 Regional Transportation Plan / Sustainable Communities Strategy.* Adopted September 2020.

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APPENDIX 1.1: TRAFFIC STUDY SCOPING AGREEMENT

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City of Perris
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CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. DPR 22-00028, CUP 22-05259, AND TPM 38567

Project Name: Perris Gateway

Project Location: Northbound side of the 215 Freeway and Ramona Expressway (APN: 314-180-023 & 314-180-024), within TAZ 3754

Project Description: 80,478 square foot self-storage facility
(Please attach a copy of the project Site Plan)

Current GP Land Use: PVCCSP-Commercial **Proposed GP Land Use:** PVCCSP-Commercial

Current Zoning: PVCCSP-Commercial **Proposed Zoning:** PVCCSP-Commercial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

A. Is the Project 100% affordable housing?	**YES**		**NO**	**X**	Attachments:	
B. Is the Project within 1/2 mile of qualifying transit?	**YES**		**NO**	**X**	Attachments:	
C. Is the Project a local serving land use?	**YES**	**X**	**NO**		Attachments:	
D. Is the Project in a low VMT area?	**YES**		**NO**		Attachments:	
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**	**X**	**NO**		Attachments:	

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]	Type of Project	
	VMT/Capita	Residential:	
	VMT/Employee	Non-Residential:	

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021

Project Trip Generation: **118** **Average Daily Trips (ADT)**

Internal Trip Credit:	YES		NO	X	% Trip Credit:	
Pass-By Trip Credit:	YES		NO	X	% Trip Credit:	
Affordable Housing Credit:	YES		NO	X	% Trip Credit:	
Existing Land Use Trip Credit:	YES		NO	X	Trip Credit:	

Net Project Daily Trips: **118** **Average Daily Trips (ADT)** Attachments: **Table 3**

Does project trip generation warrant an LOS evaluation outside of CEQA? **YES** | **NO** **X**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?

A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

--

B. Is mitigation required?

If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

--

C. Is additional VMT modeling required to evaluate Project impacts?

YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes: -- --

B. Unmitigated Project TAZ VMT Rate: -- --

C. Percentage Reduction Required to Achieve the Citywide Average VMT: --

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	**CAPCOA**

Project Location Setting	**Suburban Center**

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate: -- --

F. Is the project pressumed to have a less than significant impact with mitigation? --

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Urban Crossroads, Inc.	**Company:**	Optimus Building Corp.
Contact:	Charlene Hwang So	**Contact:**	Kelly Olauson
Address:	1133 Camelback St. #8329, Newport Beach, CA 92	**Address:**	121 Osprey Cove Ln., Ponte Vedra, FL 32082
Phone:	(949) 660-1994	**Phone:**	562-883-2465
Email:	cso@urbanxroads.com	**Email:**	kelly@kellyolauson.com
Date:	3/1/2021	**Date:**	3/1/2021

Approved by:

Perris Planning Division	Date	Perris City Engineer	Date

City of Perris
www.cityofperris.org

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. DPR 22-00028, CUP 22-05259, AND TPM 38567

Project Name: Perris Gateway

Project Location: Northbound side of the 215 Freeway and Ramona Expressway (APN: 314-180-023 & 314-180-024)

Project Description: 2 gas stations w/32 vfp, 12TSF sit-down restaruant, 18.4TSF fast food restaurants with drive-thru, 1 auto car wash w/ 1 tunnel
(Please attach a copy of the project Site Plan)

Current GP Land Use: PVCCSP-Commercial **Proposed GP Land Use:** PVCCSP-Commercial

Current Zoning: PVCCSP-Commercial **Proposed Zoning:** PVCCSP-Commercial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

A. Is the Project 100% affordable housing?	**YES**		**NO**	**X**	Attachments:	
B. Is the Project within 1/2 mile of qualifying transit?	**YES**		**NO**	**X**	Attachments:	
C. Is the Project a local serving land use?	**YES**	**X**	**NO**		Attachments:	
D. Is the Project in a low VMT area?	**YES**		**NO**	**X**	Attachments:	
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**		**NO**	**X**	Attachments:	

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
3754	**13.42**	VMT/Capita	Residential:	
	12.19	VMT/Employee	Non-Residential:	**X**

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021

Project Trip Generation: **5,350** **Average Daily Trips (ADT)**

Internal Trip Credit:	YES	**X**	NO		% Trip Credit:	
Pass-By Trip Credit:	YES	**X**	NO		% Trip Credit:	
Affordable Housing Credit:	YES		NO	**X**	% Trip Credit:	
Existing Land Use Trip Credit:	YES		NO	**X**	Trip Credit:	

Net Project Daily Trips: **5,350** **Average Daily Trips (ADT)** Attachments: **Table 3**

Does project trip generation warrant an LOS evaluation outside of CEQA? **YES** **X** **NO**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?

A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Less Than Significant

B. Is mitigation required?

If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

No Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?

YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:

N/A	N/A

B. Unmitigated Project TAZ VMT Rate:

N/A	N/A

C. Percentage Reduction Required to Achieve the Citywide Average VMT:

N/A

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	CAPCOA

Project Location Setting	Suburban Center

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:

N/A	N/A

F. Is the project pressumed to have a less than significant impact with mitigation?

N/A

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Urban Crossroads, Inc.	**Company:**	Optimus Building Corp.
Contact:	Charlene Hwang So	**Contact:**	Kelly Olauson
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Phone:	(949) 660-1994	**Phone:**	562-883-2465
Email:	cso@urbanxroads.com	**Email:**	kelly@kellyolauson.com
Date:	3/1/2021	**Date:**	7/6/2023

Approved by:

Perris Planning Division	Date	Perris City Engineer	Date

MEMORANDUM

URBAN | CROSSROADS

DATE: August 25, 2023
TO: Douglas Fenn, City of Perris
FROM: Charlene So, Urban Crossroads
JOB NO: 15495-04 TA Scope

PERRIS GATEWAY (DPR 22-00028, CUP 22-05259, AND TPM 38567) TRAFFIC ANALYSIS SCOPING AGREEMENT

Urban Crossroads, Inc. is pleased to submit the following Traffic Analysis Scoping Agreement for the Perris Gateway development (**Project**), which is located north of Ramona Expressway, between the I-215 Freeway and Webster Avenue in the City of Perris. This letter describes the proposed Project trip generation, trip distribution, and analysis methodology, which have been used to establish the draft proposed Project study area and analysis locations. The following scope of work is based on the City of Perris' Transportation Impact Analysis Guidelines for CEQA (dated May 2020) (**City Guidelines**).

PROPOSED PROJECT

It is our understanding that the Project is to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. The Project is anticipated to be constructed in one phase by the year 2026. A preliminary site plan, of which the traffic study will be based on, is shown in Attachment A. The following describes the access proposed for the site:

- Driveway 1 on Ramona Expressway – signalized access to align with Nevada Avenue
- Driveway 2 on Ramona Expressway – right-in/right-out access driveway
- Driveway 3 on Ramona Expressway – signalized full access assumed to align with future development on the South of Ramona Expressway
- Driveway 4 on Ramona Expressway – right-in/right-out access driveway
- Driveway 5 on Webster Avenue – full access driveway
- Driveway 6 on Webster Avenue – right-in/right-out access driveway

The purpose of this agreement is to obtain comments from City of Perris on the proposed traffic study scope of work. The remainder of this agreement describes the proposed analysis methodology, trip generation, trip distribution, and traffic assignment/project trips on the surrounding roadway network, which have been used to establish the proposed project study area and analysis locations.

PROJECT TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development and is based upon the specific land uses planned for a given project. In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (**ITE**) Trip Generation Manual (11th Edition, 2021) was used to estimate the trip generation. Trip generation rates for the Project are summarized in Table 1.

TABLE 1: PROJECT TRIP GENERATION RATES

Land Use[1]	ITE Land Use Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily[3]
Mini-Warehouse	151	TSF	0.05	0.04	0.09	0.07	0.08	0.15	1.45
High Turnover (Sit-Down) Restaurant	932	TSF	5.26	4.31	9.57	5.52	3.53	9.05	107.20
Fast-Food Restaurant With Drive-Thru	934	TSF	22.75	21.86	44.61	17.18	15.85	33.03	467.48
Gas Station (Market >4,000 SF)	945	VFP	13.52	13.52	27.04	11.38	11.38	22.76	257.13
Gas Station (Market >5,500 SF)	945	VFP	15.80	15.80	31.60	13.45	13.45	26.90	345.75
Automated Car Wash	948	TUN	N/A	N/A	N/A	38.75	38.75	77.50	775.00

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).
[2] TSF = thousand square feet; VFP = Vehicle Fueling Positions; TUN = Tunnels
[3] The daily trip rate is assumed to be 10 times the PM peak hour total rate for Automated Car Wash land use (ITE Land Use Code 948)

Pass-by percentages have been obtained from the ITE Trip Generation Manual (11th Edition, 2021). Pass-by trips account for trips that are currently on the existing roadway network that would stop by uses within the proposed Project on their way to their ultimate destination.

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site (trips that travel between uses without leaving the site). In other words, trips may be made between the gas station use and the restaurant uses proposed on-site which can be made either by walking or using internal roadways without using external streets. The internal capture is based on the National Cooperative Highway Research Program's (**NCHRP** Report 684) internal capture trip capture estimation tool. These internal capture worksheets are attached to this scoping agreement (see Attachment B). For the purposes of the operations analysis, the internal capture reductions have not been applied to the Project driveways.

The trip generation summary showing daily and peak hour trip generation estimates for the proposed Project is shown in Table 2. As shown in Table 2, the Project is anticipated to generate a net total of 11,968 two-way trips per day with 747 AM peak hour trips and 590 PM peak hour trips.

TABLE 2: PROJECT TRIP GENERATION SUMMARY

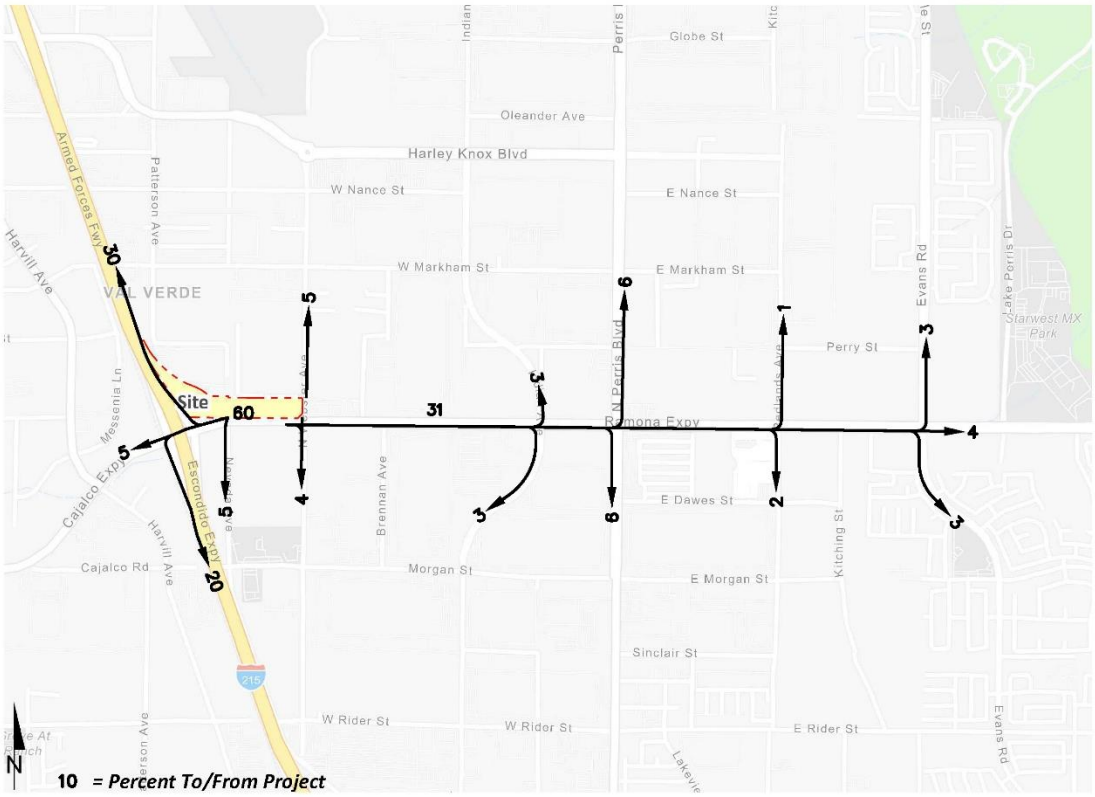
Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Self-Storage	80.478	TSF	4	3	7	6	6	12	118
High Turnover (Sit-Down) Restaurant	12.000	TSF	63	52	115	66	42	108	1,286
Internal Capture:			0	0	0	-1	-3	-4	-80
Pass-by Trip Reduction (PM = 43%; Daily = 25%):			0	0	0	-17	-17	-34	-302
Fast-Food Restaurant With Drive-Thru	18.400	TSF	419	402	821	316	292	608	8,602
Internal Capture:			0	0	0	-10	-17	-27	-514
Pass-by Trip Reduction (AM = 50%; PM = 55%; Daily = 25%):			-201	-201	-402	-151	-151	-302	-2,022
Gas Station (Market >4,000 SF)	12	VFP	162	162	324	137	137	274	3,086
Internal Capture (10%):			-16	-16	-32	-14	-14	-27	-309
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-111	-111	-222	-92	-92	-184	-694
Gas Station (Market >5,500 SF)	20	VFP	316	316	632	269	269	538	6,916
Internal Capture (10%):			-32	-32	-63	-27	-27	-54	-692
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-216	-216	-432	-182	-182	-364	-1,556
Automated Car Wash	1	TUN	0	0	0	39	39	78	776
Internal Capture:			0	0	0	-20	-11	-31	-222
Total Gross Trips (No Reductions)			964	935	1,899	833	785	1,618	20,784
Total Internal Capture Trips			-48	-48	-96	-72	-72	-143	-1,816
Total Pass-By Reduction Trips			-528	-528	-1,056	-442	-442	-884	-4,574
Total Gross Trips minus Internal Capture Reduction			916	887	1,803	761	713	1,474	18,968
Total Net Project Trips			**388**	**359**	**747**	**319**	**271**	**590**	**14,394**

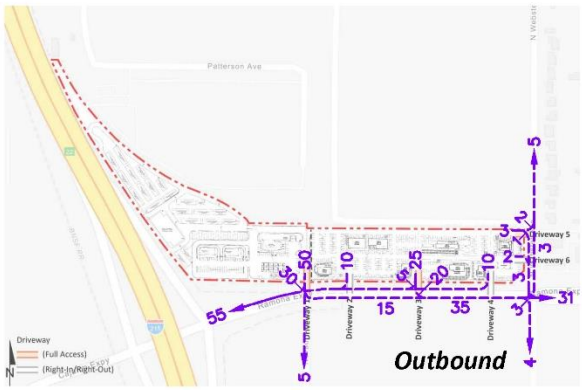
[1] TSF = thousand square feet; VFP = Vehicle Fueling Positions; TUN = Tunnels

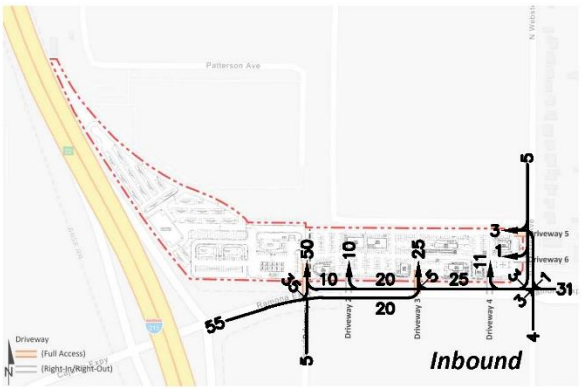
PROJECT TRIP DISTRIBUTIONS

The project trip distribution patterns have been developed based on recent experience on other studies for similar land uses in the vicinity and are based on existing and planned land uses and roadway infrastructure in the area. The Project trip distribution is illustrated on Exhibit 2.

EXHIBIT 2: PROJECT TRIP DISTRIBUTION







STUDY AREA

Consistent with the City's traffic study guidelines, the study area limits have been set based upon a threshold of 50 peak hour project trips. In other words, the study area includes any intersection of Collector roadway or higher classification street with another Collector roadway or higher classification street, at which the proposed Project will add 50 or more peak hour trips. This methodology has been utilized to establish the study area for the proposed Project. The proposed intersection analysis locations have been identified graphically on Exhibit 3 and listed in Table 3.

EXHIBIT 3: STUDY AREA

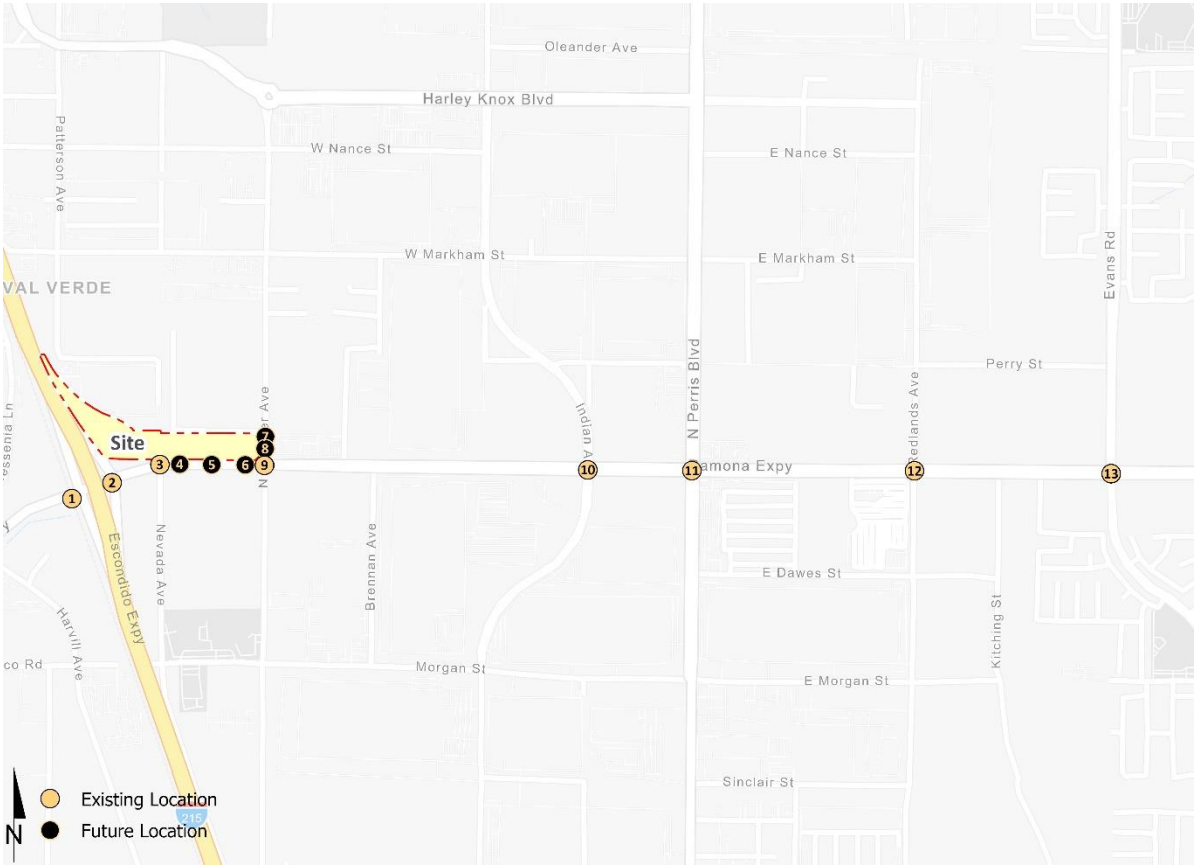


TABLE 3: LIST OF STUDY INTERSECTIONS

#	Intersection
1	I-215 NB Ramps & Ramona Exwy.
2	I-215 SB Ramps & Ramona Exwy.
3	Driveway 1/Nevada Rd. & Ramona Exwy.
4	Driveway 2 & Ramona Exwy.
5	Driveway 3 & Ramona Exwy.
6	Driveway 4 & Ramona Exwy.
7	Webster Av. & Driveway 5
8	Webster Av. & Driveway 6
9	Webster Av. & Ramona Exwy.
10	Indian Av. & Ramona Exwy.
11	Perris Bl. & Ramona Exwy.
12	Redlands Av. & Ramona Exwy.
13	Evans Rd. & Ramona Exwy.

PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and weekday peak hour intersection turning movement volumes are shown on Exhibit 4.

ANALYSIS SCENARIOS

The following analysis scenarios will be analyzed for this traffic study:

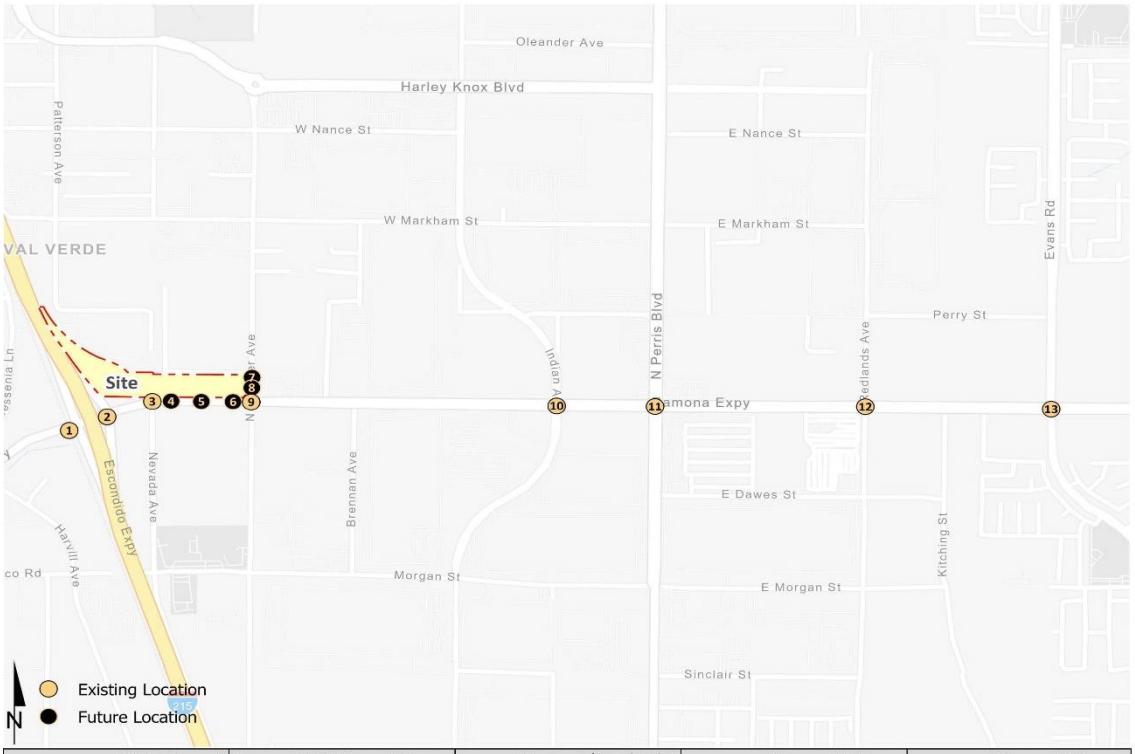
1. Existing (2023)
2. Existing Plus Project (E+P) - with Project Improvements
3. Existing Plus Ambient Growth Plus Cumulative (E+A+C) (2026)
4. Existing Plus Ambient Growth Plus Cumulative Plus Project (E+A+C+P) (2026)

Improvements by others include those improvements that are conditioned on and are either under construction or would be in place prior to the proposed Project's occupancy and would be completed by other developers in the immediate area.

METHODOLOGY

The methodology used to evaluate peak hour intersection performance is based on the Transportation Research Board's Highway Capacity Manual (HCM), 6th Edition. This methodology rates operations based on peak hour delay and associated level of service (LOS).

EXHIBIT 4: PROJECT ONLY TRAFFIC VOLUMES



1 I-215 NB Ramps & Ramona Exwy.	2 I-215 SB Ramps & Ramona Exwy.	3 Driveway 1/Nevada Rd. & Ramona Exwy.	4 Driveway 2 & Ramona Exwy.	5 Driveway 3 & Ramona Exwy.
2,150 / 4,300 116(96) ← 18(14) ← 72(54) 19(16) → 700 / 1,450	2,150 / 7,900 108(81) ← 90(68) 136(112) → 78(64) 4,300 / 1,450	11,250 / 5,050 250(197) 18(14) 212(176) 181(148) ← -52(-48) 294(247) → -80(-71) → 19(16) → 7,900 / 700	1,700 / 5,050 53(45) 56(50) ← 76(55) 131(104) → 5,050	4,550 / 5,050 51(43) 122(94) 52(45) ← 80(62) 128(104) → 4(1) → 5,050

6 Driveway 4 & Ramona Exwy.	7 Webster Av. & Driveway 5	8 Webster Av. & Driveway 6	9 Webster Av. & Ramona Exwy.	10 Indian Av. & Ramona Exwy.
2,150 / 5,100 125(99) 132(107) ← 8(8) 126(95) → 5,050	700 11(8) 9(8) 26(21) → 11(8) → 27(22) -8(-8) 600 / 700	650 17(14) 2(1) 20(16) → 19(15) → 200 / 800	800 / 4,450 12(10) 4(3) 7(5) 4(3) ← 116(96) 11(8) → 104(79) → 11(8) → 12(10) 4(3) 5,100 / 600	450 / 3,600 12(10) 97(80) ← 11(8) → 90(68) → 11(8) → 12(10) 4,450 / 450

11 Perris Bl. & Ramona Exwy.	12 Redlands Av. & Ramona Exwy.	13 Evans Rd. & Ramona Exwy.
850 / 1,850 23(19) 50(41) ← 22(16) → 47(35) → 22(16) → 23(19) 3,600 / 850	150 / 1,450 4(3) 39(32) ← 4(3) → 36(27) → 7(5) → 8(6) 1,850 / 300	450 / 600 12(10) 16(13) ← 11(8) → 14(11) → 11(8) → 12(10) 1,450 / 450

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

LEVEL OF SERVICE (LOS) CRITERIA

Required LOS for roadway segments and intersections within the City of Perris is LOS D. An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway or at I-215 Freeway ramps. Although the City's LOS standard is LOS E for the freeway ramps, these Caltrans facilities will be evaluated based on an acceptable LOS of LOS D. For the purposes of this traffic impact analysis, LOS D will be considered the acceptable threshold for all intersections within the study area.

EXISTING COUNT DATA

Traffic counts (classified by vehicle type) have been collected in May 2023 during typical weekday AM (7-9AM) and weekday PM (4-6PM) peak hour traffic conditions (Tuesday, Wednesday, or Thursday only) when local schools were in session and operating on a typical bell schedule. Count collection includes pedestrian and bicycle counts at each analysis location. No further adjustments are proposed to establish existing baseline traffic forecasts aside from adjustments for volume balancing between closely spaced intersections.

AMBIENT GROWTH RATE

Consistent with other City of Perris traffic studies performed by Urban Crossroads, an ambient growth rate of 3 percent per year, compounded annually, will be used for this analysis (3% per year over 3 years or 9.27%).

SPECIAL ISSUES

The following special issues will be addressed as part of the TA:

- Traffic signal warrant analyses will be conducted for all unsignalized study area intersections for all applicable analysis scenarios.
- Peak hour off-ramp queues will be evaluated at the I-215 Freeway ramps on Ramona Expressway.
- Evaluate the peak hour queuing, need for right turn lanes, and spacing requirement per the Perris Valley Commerce Center Specific Plan (PVCCSP) at the Project driveways located along the Project frontages of Ramona Expressway and Webster Avenue.
- In addition to the queuing analysis at the Project driveways identified above, queuing will also be evaluated at the remaining study area intersections to ensure turn pocket lengths can accommodate the 95th percentile peak hour queues.
- Internal circulation analysis will be conducted to ensure vehicles can navigate the site without undue congestion (e.g., drive-through facilities, internal intersections, stacking at inbound driveway throats, etc.).
- Conduct Vehicle Miles Traveled (VMT) analysis under separate cover.

CUMULATIVE DEVELOPMENT PROJECTS

Exhibit 5 illustrates the locations of these cumulative development projects. A list of cumulative development projects and their proposed land uses are shown in Table 4. Please provide any updated projects for inclusion on the list.

If you have any questions or comments, I can be reached at cso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.



Charlene So, PE
Principal

EXHIBIT 5: CUMULATIVE DEVELOPMENT PROJECT LOCATION MAP

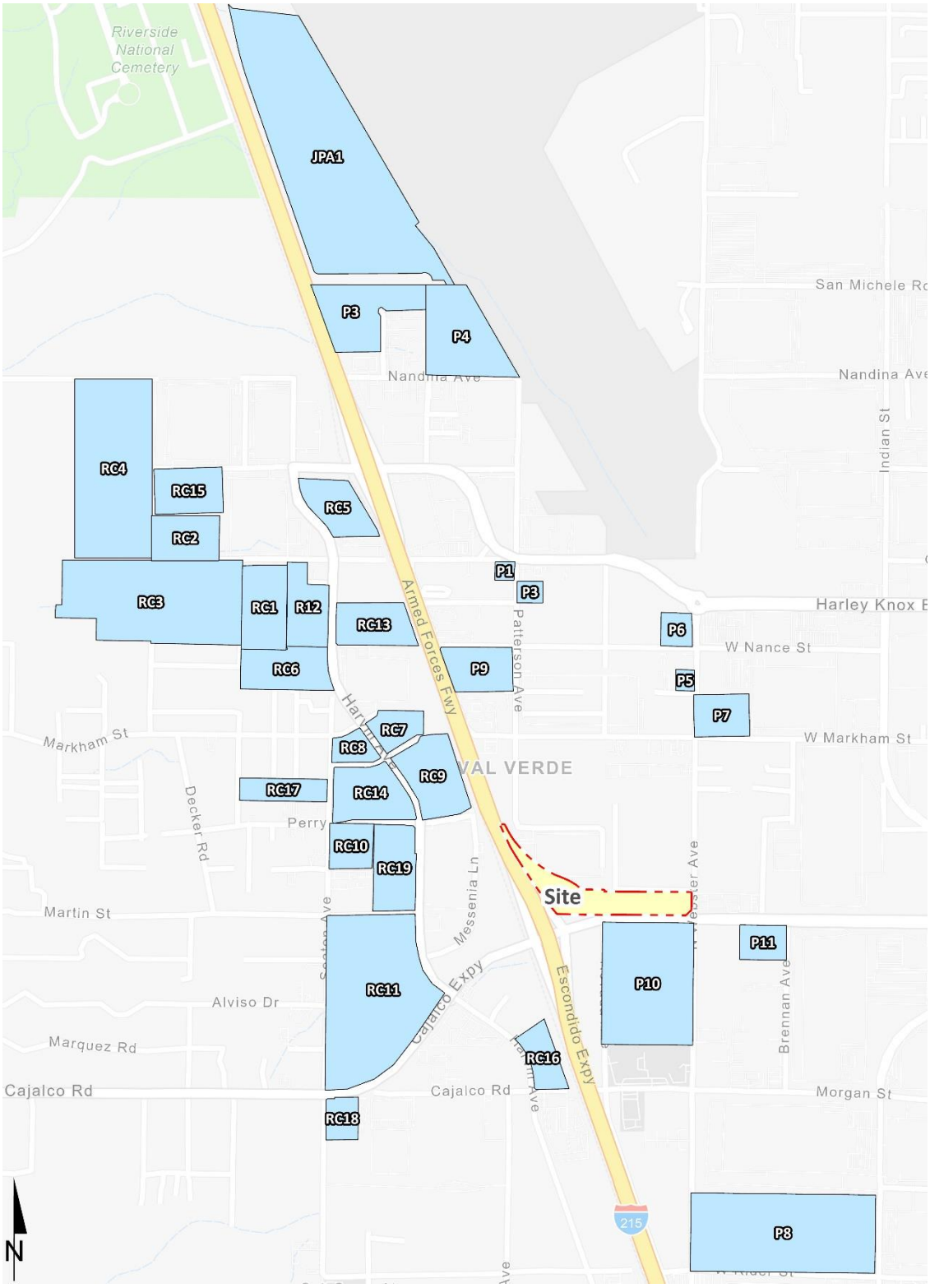


TABLE 4: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

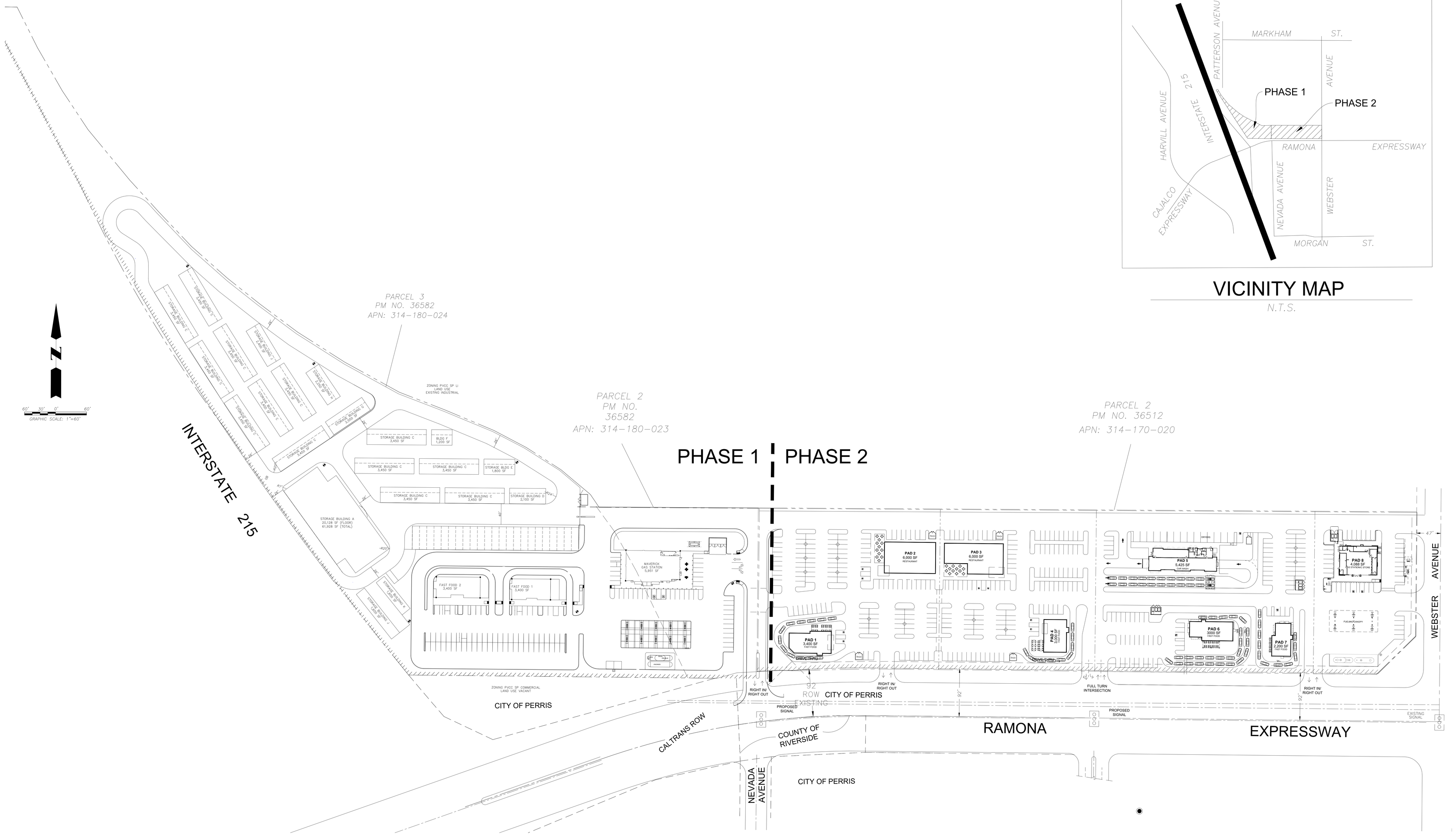
No.	Project Name / Case Number	Land Use	Quantity	Units[1]
RC1	Majestic Freeway Business Center - Building 20	High-Cube Warehouse	426.821	TSF
RC2	Majestic Freeway Business Center - Building 21,22	Warehousing	241.059	TSF
RC3	Knox Logistics Center	High-Cube Warehouse	1,259.410	TSF
RC4	Oleander Business Park	High-Cube Warehouse	680.000	TSF
RC5	PPT190031	High-Cube Warehouse	418.000	TSF
RC6	Majestic Freeway Business Center - Building 19	Warehousing	364.560	TSF
RC7	Majestic Freeway Business Center - Building 12	Warehousing	154.751	TSF
RC8	Majestic Freeway Business Center - Building 15	Warehousing	90.279	TSF
RC9	Majestic Freeway Business Center - Building 11	High-Cube Warehouse	391.045	TSF
RC10	PPT180025: Seaton Commerce Center	High-Cube Warehouse	210.800	TSF
RC11	Majestic Freeway Business Center - Buildings 1, 3 & 4	Warehousing	48.930	TSF
		High-Cube Warehouse	1,195.740	TSF
RC12	Majestic Freeway Business Center - Building 18	High-Cube Warehouse	333.648	TSF
RC13	Majestic Freeway Business Center - Building 17	High-Cube Warehouse	268.955	TSF
RC14	Majestic Freeway Business Center - Building 14A/B	Warehousing	354.583	TSF
RC15	PPT210130	Warehousing	239.308	TSF
RC16	Harvill & Cajalco Warehouse	General Light Industrial	99.770	TSF
		Truck Trailer Yard	133	Spaces
RC17	PPT210022	General Light Industrial	98.940	TSF
RC18	PPT210133	Warehousing	350.481	TSF
P1	Canyon Steel (CS)	Industrial	25.000	TSF
P2	First March Logistics	Warehousing	589.971	TSF
P3	Duke - Patterson at Nance	High-Cube Warehouse	580.000	TSF
P4	Western Industrial (DRP19-00003)	High-Cube Warehouse	250.000	TSF
P5	Marijuana Manufacturing (MM)	Industrial	1.000	TSF
P6	AAA	Industrial	2.000	TSF
P7	Integra Expansion / MMOD 17-05075	High-Cube Warehouse	273.000	TSF
P8	Rados / DPR 07-0119	High-Cube Warehouse	1,200.000	TSF
P9	Patterson Commerce Center	High-Cube Fulfillment	224.247	TSF
		High-Cube Cold Storage	39.573	TSF
P10	Ramona Gateway Commerce Center	High-Cube Fulfillment	902.713	TSF
		High-Cube Cold Storage	47.511	TSF
		Fast-Food Restaurant w/	16.500	TSF
		Fast-Food Restaurant w/	10.200	TSF
		Coffee Shop w/ DT	2.400	TSF
		Automated Car Wash	1.000	Tunnel
		Gas Station w/ Market	16.000	VFP
P11	Ramona & Brennan	Warehousing	162.871	TSF
JPA1	VIP 215	High-Cube Warehouse	2,219.850	TSF

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

ATTACHMENT A: PRELIMINARY SITE PLAN

VICINITY MAP

N.T.S.



ATTACHMENT B: INTERNAL CAPTURE WORKSHEETS

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	JN:15495-04	**Organization:**	City of Perris
Project Location:		**Performed By:**	Urban Crossroads, Inc.
Scenario Description:		**Date:**	August 2023
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0	0	0
Restaurant				936	482	454
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses[2]				0		
Total				936	482	454

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	936	482	454
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[3]	936	482	454
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	0%	0%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	JN:15495-02	**Organization:**	City of Perris
Project Location:		**Performed By:**	Urban Crossroads, Inc.
Scenario Description:		**Date:**	July 2023
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				78	39	39
Restaurant				716	382	334
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses[2]				0		
Total				794	421	373

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		11	0	0	0
Restaurant	0	20		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	794	421	373
Internal Capture Percentage	8%	7%	8%
External Vehicle-Trips[3]	732	390	342
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	51%	28%
Restaurant	3%	6%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

APPENDIX 1.2: SITE ADJACENT QUEUES

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Intersection: 3: Nevada Av./Driveway 1 & Ramona Exwy.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LTR	L	TR
Maximum Queue (ft)	225	591	582	171	215	205	106	119	230	212
Average Queue (ft)	196	555	554	32	185	184	47	47	129	104
95th Queue (ft)	283	570	568	97	202	199	90	100	214	178
Link Distance (ft)		537	537		171	171	171	2398	252	252
Upstream Blk Time (%)		39	43	0	35	36			0	0
Queuing Penalty (veh)		0	0	0	206	211			0	0
Storage Bay Dist (ft)	125			130						
Storage Blk Time (%)	29	41		0	46					
Queuing Penalty (veh)	349	121		0	14					

Intersection: 4: Ramona Exwy. & Driveway 2

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	TR	R
Maximum Queue (ft)	192	192	334	338	249	173
Average Queue (ft)	76	69	287	292	13	101
95th Queue (ft)	180	182	399	399	115	196
Link Distance (ft)	171	171	311	311	311	154
Upstream Blk Time (%)	1	1	11	14	1	30
Queuing Penalty (veh)	14	13	67	85	4	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Ramona Exwy. & Driveway 3

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	200	334	350	362	150	388	403	396	385	350	164	97
Average Queue (ft)	107	295	298	294	145	355	360	317	215	119	76	30
95th Queue (ft)	211	362	372	379	172	373	389	454	352	259	144	72
Link Distance (ft)		311	311	311		336	336	336	374	374	274	274
Upstream Blk Time (%)		11	8	9		51	49	20	6	1		
Queuing Penalty (veh)		94	67	71		302	287	121	0	0		
Storage Bay Dist (ft)	150				100							
Storage Blk Time (%)	1	37			60	49						
Queuing Penalty (veh)	4	47			299	118						

Intersection: 6: Ramona Exwy. & Driveway 4

Movement	EB	WB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	8	1295	1285	1254	279
Average Queue (ft)	0	963	924	831	255
95th Queue (ft)	6	1539	1510	1472	269
Link Distance (ft)	336	1265	1265	1265	252
Upstream Blk Time (%)		23	18	14	100
Queuing Penalty (veh)		0	0	0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Webster Av. & Driveway 5

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	62	35
Average Queue (ft)	27	6
95th Queue (ft)	54	26
Link Distance (ft)	507	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Webster Av. & Driveway 6

Movement	EB
Directions Served	R
Maximum Queue (ft)	34
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	505
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 2496

Intersection: 3: Nevada Av./Driveway 1 & Ramona Exwy.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LTR	L	TR
Maximum Queue (ft)	225	584	581	171	204	207	122	101	204	209
Average Queue (ft)	183	555	555	43	179	182	49	36	102	88
95th Queue (ft)	275	569	571	117	212	210	97	83	178	159
Link Distance (ft)		537	537		171	171	171	2398	252	252
Upstream Blk Time (%)		39	41	0	29	32	0		0	
Queuing Penalty (veh)		0	0	0	157	172	0		0	
Storage Bay Dist (ft)	125			130						
Storage Blk Time (%)	30	39		0	37					
Queuing Penalty (veh)	334	96		0	13					

Intersection: 4: Ramona Exwy. & Driveway 2

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	TR	R
Maximum Queue (ft)	181	182	342	341	317	163
Average Queue (ft)	46	40	248	254	37	57
95th Queue (ft)	141	137	396	403	195	129
Link Distance (ft)	171	171	311	311	311	154
Upstream Blk Time (%)	0	0	7	8	0	4
Queuing Penalty (veh)	5	4	38	46	2	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Ramona Exwy. & Driveway 3

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	199	331	355	362	150	360	379	359	299	125	117	83
Average Queue (ft)	94	266	270	261	121	276	275	205	136	62	53	26
95th Queue (ft)	197	377	386	383	177	389	390	366	255	112	100	62
Link Distance (ft)		311	311	311		336	336	336	374	374	274	274
Upstream Blk Time (%)		5	5	5		5	5	1	0			
Queuing Penalty (veh)		39	34	40		25	25	6	0			
Storage Bay Dist (ft)	150				100							
Storage Blk Time (%)	0	24			20	35						
Queuing Penalty (veh)	3	24			97	50						

Intersection: 6: Ramona Exwy. & Driveway 4

Movement	WB	WB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	180	168	105	116
Average Queue (ft)	32	28	8	47
95th Queue (ft)	130	119	64	102
Link Distance (ft)	1265	1265	1265	252
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Webster Av. & Driveway 5

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	44	30
Average Queue (ft)	19	3
95th Queue (ft)	46	19
Link Distance (ft)	507	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Webster Av. & Driveway 6

Movement	EB
Directions Served	R
Maximum Queue (ft)	34
Average Queue (ft)	11
95th Queue (ft)	35
Link Distance (ft)	505
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 1210

APPENDIX 3.1: TRAFFIC COUNTS

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A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023 **CITY:** Perris

JOB #: SC4061 **LOCATION:** CLASS1 Ramona west of Evans

AM TIME	EB 1	2	3	4	5	6	TOTAL	PM Time	EB 1	2	3	4	5	6	TOTAL
0:00	90	1	0	0	0	0	91	**12:00**	209	9	4	4	0	0	226
0:15	66	0	0	2	0	0	68	**12:15**	215	11	1	6	0	0	233
0:30	93	0	0	4	0	0	97	**12:30**	246	16	0	4	0	1	267
0:45	62	1	0	2	0	0	65	**12:45**	222	13	2	3	0	1	241
1:00	46	0	0	0	0	0	46	**13:00**	255	16	5	3	0	0	279
1:15	61	2	1	1	0	0	65	**13:15**	299	17	5	4	0	0	325
1:30	54	1	0	0	0	0	55	**13:30**	382	9	2	4	0	1	398
1:45	42	0	0	0	0	0	42	**13:45**	351	15	4	1	0	3	374
2:00	43	0	0	0	0	0	43	**14:00**	332	18	2	3	0	0	355
2:15	31	1	1	1	0	0	34	**14:15**	308	19	2	5	0	1	335
2:30	60	1	0	0	0	0	61	**14:30**	399	11	5	2	0	2	419
2:45	41	2	0	0	0	0	43	**14:45**	405	24	4	1	0	1	435
3:00	38	0	0	0	0	0	38	**15:00**	379	17	1	3	0	1	401
3:15	30	0	0	1	0	0	31	**15:15**	332	19	1	5	0	6	363
3:30	52	1	0	2	0	0	55	**15:30**	357	15	1	3	0	2	378
3:45	43	0	0	3	0	0	46	**15:45**	428	13	0	3	0	1	445
4:00	43	0	0	2	0	3	48	**16:00**	367	12	0	5	0	0	384
4:15	56	2	0	2	0	0	60	**16:15**	357	21	0	3	0	1	382
4:30	111	0	0	1	0	0	112	**16:30**	392	10	0	6	0	0	408
4:45	147	4	1	3	0	0	155	**16:45**	467	23	2	6	1	0	499
5:00	83	5	2	4	0	0	94	**17:00**	355	12	1	0	0	1	369
5:15	87	1	1	2	0	0	91	**17:15**	428	22	1	4	0	0	455
5:30	89	6	2	3	0	0	100	**17:30**	381	11	0	3	0	0	395
5:45	103	6	4	6	0	1	120	**17:45**	402	8	3	4	0	0	417
6:00	126	11	4	6	0	0	147	**18:00**	394	18	0	2	0	0	414
6:15	135	15	10	6	0	3	169	**18:15**	382	13	1	3	0	0	399
6:30	191	11	4	3	0	0	209	**18:30**	330	16	3	2	0	2	353
6:45	167	9	6	5	0	3	190	**18:45**	334	12	1	2	0	0	349
7:00	205	8	9	5	1	0	228	**19:00**	317	8	1	1	0	0	327
7:15	203	19	7	4	0	1	234	**19:15**	287	10	1	3	0	0	301
7:30	194	11	3	3	0	0	211	**19:30**	291	6	0	2	0	0	299
7:45	218	8	1	5	0	2	234	**19:45**	265	8	3	4	0	0	280
8:00	243	16	2	6	0	1	268	**20:00**	234	12	0	4	0	0	250
8:15	206	7	5	3	0	3	224	**20:15**	254	9	0	1	1	0	265
8:30	164	12	3	10	0	1	190	**20:30**	256	7	0	1	0	0	264
8:45	178	10	2	5	0	2	197	**20:45**	252	8	0	0	0	0	260
9:00	146	10	5	4	0	1	166	**21:00**	249	3	1	3	0	0	256
9:15	179	18	5	5	0	2	209	**21:15**	210	3	0	2	0	0	215
9:30	163	16	0	2	0	0	181	**21:30**	241	3	0	1	0	0	245
9:45	146	9	2	2	0	1	160	**21:45**	168	4	1	1	0	0	174
10:00	171	11	2	6	0	0	190	**22:00**	195	1	0	0	0	0	196
10:15	169	11	3	7	0	0	190	**22:15**	155	1	0	2	0	0	158
10:30	157	16	1	1	0	0	175	**22:30**	190	1	0	0	0	0	191
10:45	195	14	0	5	0	0	214	**22:45**	185	3	0	2	0	0	190
11:00	186	11	1	3	0	1	202	**23:00**	189	1	0	0	0	0	190
11:15	210	19	1	5	0	0	235	**23:15**	172	2	0	0	1	0	175
11:30	205	12	2	5	0	0	224	**23:30**	132	3	0	0	0	0	135
11:45	192	11	3	0	0	0	206	**23:45**	112	0	0	0	0	0	112
TOTAL	5,920	329	93	145	1	25	6,513	**TOTAL**	14,062	513	58	121	3	24	14,781

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	947

AM PEAK HOUR	4:30 PM
AM PEAK VOLUME	1,731

			1	2	3	4	5	6	TOTAL
CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	19,982	842	151	266	4	49	21,294
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	93.8%	4.0%	0.7%	1.2%	0.0%	0.2%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	40,670	1,720	314	525	6	101	43,336
CLASS 6	Buses	**% OF TOTAL**	93.8%	4.0%	0.7%	1.2%	0.0%	0.2%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023
JOB #: SC4061

CITY: Perris
LOCATION: CLASS1 Ramona west of Evans

AM TIME	WB 1	2	3	4	5	6	TOTAL	PM Time	WB 1	2	3	4	5	6	TOTAL
0:00	39	0	0	1	0	0	40	**12:00**	239	9	0	4	0	0	252
0:15	37	1	0	0	0	0	38	**12:15**	227	12	3	3	1	0	246
0:30	27	1	0	0	0	0	28	**12:30**	237	5	2	2	0	1	247
0:45	25	2	0	0	0	0	27	**12:45**	273	8	5	6	0	3	295
1:00	26	0	0	0	0	0	26	**13:00**	242	11	2	7	0	2	264
1:15	31	1	0	3	0	0	35	**13:15**	270	19	5	4	0	0	298
1:30	47	1	0	0	0	0	48	**13:30**	314	16	3	3	0	1	337
1:45	36	1	0	1	0	0	38	**13:45**	308	13	4	10	0	0	335
2:00	36	2	0	2	0	0	40	**14:00**	275	8	5	4	0	0	292
2:15	32	0	0	1	0	0	33	**14:15**	307	11	3	5	0	2	328
2:30	59	1	0	1	0	0	61	**14:30**	272	18	5	4	0	0	299
2:45	55	1	0	1	0	0	57	**14:45**	254	15	1	3	0	1	274
3:00	61	3	0	2	0	0	66	**15:00**	306	15	3	4	0	0	328
3:15	96	4	0	2	0	0	102	**15:15**	261	16	7	5	0	2	291
3:30	157	2	1	0	0	0	160	**15:30**	325	13	2	1	0	1	342
3:45	170	1	0	1	0	0	172	**15:45**	269	22	4	3	0	1	299
4:00	214	14	0	2	0	0	230	**16:00**	284	15	5	8	0	2	314
4:15	243	12	0	2	0	0	257	**16:15**	277	14	2	4	0	1	298
4:30	326	18	2	0	0	0	346	**16:30**	298	13	7	4	0	0	322
4:45	309	9	0	5	0	0	323	**16:45**	272	6	0	8	0	2	288
5:00	241	20	1	3	0	0	265	**17:00**	284	14	6	4	0	0	308
5:15	309	17	1	2	0	0	329	**17:15**	285	14	1	2	0	0	302
5:30	383	19	2	4	0	0	408	**17:30**	294	8	3	4	0	1	310
5:45	408	18	2	0	0	0	428	**17:45**	254	5	1	0	0	0	260
6:00	258	26	2	2	0	2	290	**18:00**	303	10	1	4	0	0	318
6:15	283	25	3	2	0	0	313	**18:15**	266	3	2	4	0	1	276
6:30	387	12	1	5	0	0	405	**18:30**	252	11	1	6	0	1	271
6:45	397	14	1	2	0	0	414	**18:45**	193	7	4	0	0	0	204
7:00	391	21	2	2	0	1	417	**19:00**	191	5	4	1	0	0	201
7:15	421	20	7	1	0	1	450	**19:15**	187	2	1	2	0	0	192
7:30	401	17	4	5	0	2	429	**19:30**	217	6	0	5	0	0	228
7:45	423	18	2	3	0	0	446	**19:45**	204	4	0	1	1	0	210
8:00	341	11	2	3	0	5	362	**20:00**	165	4	0	2	0	0	171
8:15	324	17	2	2	0	1	346	**20:15**	205	4	0	4	0	0	213
8:30	323	15	2	2	0	3	345	**20:30**	215	5	0	2	0	0	222
8:45	258	18	4	9	0	3	292	**20:45**	175	1	0	4	0	1	181
9:00	227	13	4	5	0	3	252	**21:00**	153	2	0	1	0	0	156
9:15	221	7	2	3	0	0	233	**21:15**	134	4	0	1	0	0	139
9:30	234	10	6	2	0	0	252	**21:30**	150	2	0	0	0	0	152
9:45	234	11	4	7	0	5	261	**21:45**	137	1	0	3	0	0	141
10:00	235	6	3	3	0	0	247	**22:00**	111	1	1	1	0	0	114
10:15	212	13	2	4	0	0	231	**22:15**	110	2	0	2	0	0	114
10:30	194	10	4	5	0	0	213	**22:30**	112	1	0	0	0	0	113
10:45	181	6	1	1	0	0	189	**22:45**	92	3	0	1	0	0	96
11:00	217	10	0	3	0	0	230	**23:00**	80	2	0	0	0	0	82
11:15	195	13	0	2	0	1	211	**23:15**	74	4	0	1	0	0	79
11:30	231	13	2	1	0	2	249	**23:30**	69	3	0	2	0	0	74
11:45	254	16	1	1	0	0	272	**23:45**	57	1	0	2	0	0	60
TOTAL	10,209	490	70	108	0	29	10,906	**TOTAL**	10,479	388	93	151	2	23	11,136

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	1,742

AM PEAK HOUR	1:30 PM
AM PEAK VOLUME	1,292

TOTAL: AM+PM	20,688	878	163	259	2	52	22,042
% OF TOTAL	93.9%	4.0%	0.7%	1.2%	0.0%	0.2%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023 **CITY:** Perris

JOB #: SC4061 **LOCATION:** CLASS1 Ramona west of Evans

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	129	1	0	1	0	0	131	12:00	448	18	4	8	0	0	478
0:15	103	1	0	2	0	0	106	12:15	442	23	4	9	1	0	479
0:30	120	1	0	4	0	0	125	12:30	483	21	2	6	0	2	514
0:45	87	3	0	2	0	0	92	12:45	495	21	7	9	0	4	536
1:00	72	0	0	0	0	0	72	13:00	497	27	7	10	0	2	543
1:15	92	3	1	4	0	0	100	13:15	569	36	10	8	0	0	623
1:30	101	2	0	0	0	0	103	13:30	696	25	5	7	0	2	735
1:45	78	1	0	1	0	0	80	13:45	659	28	8	11	0	3	709
2:00	79	2	0	2	0	0	83	14:00	607	26	7	7	0	0	647
2:15	63	1	1	2	0	0	67	14:15	615	30	5	10	0	3	663
2:30	119	2	0	1	0	0	122	14:30	671	29	10	6	0	2	718
2:45	96	3	0	1	0	0	100	14:45	659	39	5	4	0	2	709
3:00	99	3	0	2	0	0	104	15:00	685	32	4	7	0	1	729
3:15	126	4	0	3	0	0	133	15:15	593	35	8	10	0	8	654
3:30	209	3	1	2	0	0	215	15:30	682	28	3	4	0	3	720
3:45	213	1	0	4	0	0	218	15:45	697	35	4	6	0	2	744
4:00	257	14	0	4	0	3	278	16:00	651	27	5	13	0	2	698
4:15	299	14	0	4	0	0	317	16:15	634	35	2	7	0	2	680
4:30	437	18	2	1	0	0	458	16:30	690	23	7	10	0	0	730
4:45	456	13	1	8	0	0	478	16:45	739	29	2	14	1	2	787
5:00	324	25	3	7	0	0	359	17:00	639	26	7	4	0	1	677
5:15	396	18	2	4	0	0	420	17:15	713	36	2	6	0	0	757
5:30	472	25	4	7	0	0	508	17:30	675	19	3	7	0	1	705
5:45	511	24	6	6	0	1	548	17:45	656	13	4	4	0	0	677
6:00	384	37	6	8	0	2	437	18:00	697	28	1	6	0	0	732
6:15	418	40	13	8	0	3	482	18:15	648	16	3	7	0	1	675
6:30	578	23	5	8	0	0	614	18:30	582	27	4	8	0	3	624
6:45	564	23	7	7	0	3	604	18:45	527	19	5	2	0	0	553
7:00	596	29	11	7	1	1	645	19:00	508	13	5	2	0	0	528
7:15	624	39	14	5	0	2	684	19:15	474	12	2	5	0	0	493
7:30	595	28	7	8	0	2	640	19:30	508	12	0	7	0	0	527
7:45	641	26	3	8	0	2	680	19:45	469	12	3	5	1	0	490
8:00	584	27	4	9	0	6	630	20:00	399	16	0	6	0	0	421
8:15	530	24	7	5	0	4	570	20:15	459	13	0	5	1	0	478
8:30	487	27	5	12	0	4	535	20:30	471	12	0	3	0	0	486
8:45	436	28	6	14	0	5	489	20:45	427	9	0	4	0	1	441
9:00	373	23	9	9	0	4	418	21:00	402	5	1	4	0	0	412
9:15	400	25	7	8	0	2	442	21:15	344	7	0	3	0	0	354
9:30	397	26	6	4	0	0	433	21:30	391	5	0	1	0	0	397
9:45	380	20	6	9	0	6	421	21:45	305	5	1	4	0	0	315
10:00	406	17	5	9	0	0	437	22:00	306	2	1	1	0	0	310
10:15	381	24	5	11	0	0	421	22:15	265	3	0	4	0	0	272
10:30	351	26	5	6	0	0	388	22:30	302	2	0	0	0	0	304
10:45	376	20	1	6	0	0	403	22:45	277	6	0	3	0	0	286
11:00	403	21	1	6	0	1	432	23:00	269	3	0	0	0	0	272
11:15	405	32	1	7	0	1	446	23:15	246	6	0	1	1	0	254
11:30	436	25	4	6	0	2	473	23:30	201	6	0	2	0	0	209
11:45	446	27	4	1	0	0	478	23:45	169	1	0	2	0	0	172
TOTAL	16,129	819	163	253	1	54	17,419	TOTAL	24,541	901	151	272	5	47	25,917

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	2,649

AM PEAK HOUR	4:30 PM
AM PEAK VOLUME	2,951

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

	1	2	3	4	5	6	TOTAL
TOTAL: AM+PM	40,670	1,720	314	525	6	101	43,336
% OF TOTAL	93.8%	4.0%	0.7%	1.2%	0.0%	0.2%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023 **CITY:** Perris

JOB #: SC4061 **LOCATION:** CLASS2 Webster north of Ramona

AM	NB							PM	NB						
TIME	1	2	3	4	5	6	TOTAL	Time	1	2	3	4	5	6	TOTAL
0:00	5	0	1	0	0	0	6	12:00	41	6	0	1	0	0	48
0:15	7	0	0	0	0	0	7	12:15	24	3	1	2	0	0	30
0:30	4	0	0	0	0	0	4	12:30	40	7	0	2	0	0	49
0:45	2	0	0	0	0	0	2	12:45	31	8	1	3	0	0	43
1:00	5	1	0	0	0	0	6	13:00	34	6	1	1	0	0	42
1:15	3	0	0	0	0	0	3	13:15	45	4	2	1	0	0	52
1:30	6	1	0	0	0	0	7	13:30	60	11	0	1	0	0	72
1:45	2	0	0	0	0	0	2	13:45	74	6	1	1	0	0	82
2:00	2	0	0	0	0	0	2	14:00	45	7	0	3	0	0	55
2:15	2	0	0	0	0	0	2	14:15	58	5	3	1	0	0	67
2:30	7	0	0	0	0	0	7	14:30	69	5	0	4	0	0	78
2:45	4	0	0	0	0	0	4	14:45	98	8	0	2	0	0	108
3:00	7	0	0	0	0	0	7	15:00	60	7	1	2	0	0	70
3:15	6	2	0	0	0	0	8	15:15	50	6	4	3	0	0	63
3:30	16	1	1	0	0	0	18	15:30	51	5	0	0	0	0	56
3:45	20	2	0	0	0	0	22	15:45	53	5	3	2	0	0	63
4:00	14	0	0	0	0	0	14	16:00	45	3	0	1	0	0	49
4:15	23	1	0	1	0	0	25	16:15	24	5	1	0	0	0	30
4:30	36	3	0	1	0	0	40	16:30	46	3	0	0	0	0	49
4:45	41	1	0	2	0	0	44	16:45	46	3	0	1	0	0	50
5:00	45	1	0	0	0	0	46	17:00	41	5	0	0	0	0	46
5:15	46	1	0	1	0	0	48	17:15	35	4	0	1	0	0	40
5:30	80	2	0	0	0	0	82	17:30	30	3	0	0	0	0	33
5:45	108	2	1	1	0	0	112	17:45	36	1	1	0	0	0	38
6:00	42	4	0	4	0	0	50	18:00	27	2	1	0	0	0	30
6:15	51	1	0	1	0	0	53	18:15	48	2	0	2	0	0	52
6:30	82	5	1	2	0	0	90	18:30	29	1	1	3	0	0	34
6:45	103	2	0	3	0	0	108	18:45	29	1	0	0	0	0	30
7:00	74	3	0	1	0	0	78	19:00	22	4	0	2	0	0	28
7:15	56	5	1	2	0	0	64	19:15	17	0	0	1	0	0	18
7:30	62	4	0	0	0	0	66	19:30	26	1	0	0	0	0	27
7:45	62	4	0	1	0	0	67	19:45	36	0	0	0	0	0	36
8:00	57	3	0	0	0	1	61	20:00	21	1	0	0	0	0	22
8:15	36	5	1	0	0	0	42	20:15	16	0	0	0	0	0	16
8:30	26	7	0	0	0	0	33	20:30	26	2	1	2	0	0	31
8:45	33	4	2	3	0	0	42	20:45	24	0	0	1	0	0	25
9:00	30	2	0	0	0	0	32	21:00	26	0	0	0	0	0	26
9:15	38	3	0	1	0	0	42	21:15	27	1	0	0	0	0	28
9:30	24	5	0	1	0	0	30	21:30	30	0	2	1	0	0	33
9:45	33	3	1	0	0	0	37	21:45	47	0	2	0	0	0	49
10:00	40	10	0	1	0	0	51	22:00	12	1	0	0	0	0	13
10:15	31	5	1	0	0	0	37	22:15	16	1	0	1	0	0	18
10:30	44	5	1	1	0	0	51	22:30	14	2	0	0	0	0	16
10:45	39	9	0	2	0	0	50	22:45	15	1	0	0	0	0	16
11:00	35	3	0	2	0	0	40	23:00	11	0	0	0	0	0	11
11:15	27	4	0	2	0	0	33	23:15	7	0	0	0	0	0	7
11:30	32	6	1	0	0	0	39	23:30	8	0	0	0	0	0	8
11:45	40	4	2	0	0	0	46	23:45	7	0	0	1	0	0	8
TOTAL	1,588	124	14	33	0	1	1,760	TOTAL	1,677	146	26	46	0	0	1,895

AM PEAK HOUR	6:30 AM	AM PEAK HOUR	2:15 PM
AM PEAK VOLUME	340	AM PEAK VOLUME	323

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	3,265	270	40	79	0	1	3,655
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	89.3%	7.4%	1.1%	2.2%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	6,373	553	77	157	1	1	7,162
CLASS 6	Buses	% OF TOTAL	89.0%	7.7%	1.1%	2.2%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023
JOB #: SC4061

CITY: Perris
LOCATION: CLASS2 Webster north of Ramona

AM TIME	SB 1	2	3	4	5	6	TOTAL	PM Time	SB 1	2	3	4	5	6	TOTAL
0:00	8	0	0	0	0	0	8	**12:00**	45	1	2	1	0	0	49
0:15	6	0	0	0	0	0	6	**12:15**	41	8	2	1	1	0	53
0:30	16	0	0	1	0	0	17	**12:30**	46	6	0	3	0	0	55
0:45	17	0	1	0	0	0	18	**12:45**	50	7	0	3	0	0	60
1:00	12	1	0	1	0	0	14	**13:00**	41	6	0	1	0	0	48
1:15	3	1	0	0	0	0	4	**13:15**	35	6	0	1	0	0	42
1:30	13	0	0	0	0	0	13	**13:30**	42	4	2	1	0	0	49
1:45	11	0	0	0	0	0	11	**13:45**	54	2	1	1	0	0	58
2:00	4	1	0	0	0	0	5	**14:00**	71	9	2	1	0	0	83
2:15	6	0	0	0	0	0	6	**14:15**	48	1	0	2	0	0	51
2:30	14	0	0	0	0	0	14	**14:30**	99	0	0	1	0	0	100
2:45	5	0	0	0	0	0	5	**14:45**	58	3	1	3	0	0	65
3:00	13	0	0	0	0	0	13	**15:00**	54	7	0	1	0	0	62
3:15	9	1	0	0	0	0	10	**15:15**	49	5	1	2	0	0	57
3:30	19	1	0	0	0	0	20	**15:30**	85	1	0	3	0	0	89
3:45	9	2	0	0	0	0	11	**15:45**	48	0	0	2	0	0	50
4:00	19	1	0	0	0	0	20	**16:00**	56	4	0	0	0	0	60
4:15	13	3	0	0	0	0	16	**16:15**	36	2	0	0	0	0	38
4:30	25	6	1	0	0	0	32	**16:30**	58	3	0	0	0	0	61
4:45	16	3	0	0	0	0	19	**16:45**	58	2	1	1	0	0	62
5:00	24	2	0	2	0	0	28	**17:00**	44	3	0	0	0	0	47
5:15	17	2	0	3	0	0	22	**17:15**	45	1	0	0	0	0	46
5:30	24	5	0	1	0	0	30	**17:30**	72	1	0	1	0	0	74
5:45	24	4	3	0	0	0	31	**17:45**	46	3	0	0	0	0	49
6:00	21	7	1	2	0	0	31	**18:00**	44	6	0	0	0	0	50
6:15	29	9	0	2	0	0	40	**18:15**	46	0	2	1	0	0	49
6:30	55	5	0	2	0	0	62	**18:30**	50	2	1	0	0	0	53
6:45	38	11	0	1	0	0	50	**18:45**	43	2	2	1	0	0	48
7:00	30	13	1	3	0	0	47	**19:00**	41	0	1	0	0	0	42
7:15	23	8	1	2	0	0	34	**19:15**	26	3	0	0	0	0	29
7:30	21	3	0	1	0	0	25	**19:30**	30	0	0	1	0	0	31
7:45	14	7	0	0	0	0	21	**19:45**	30	1	0	2	0	0	33
8:00	33	5	0	0	0	0	38	**20:00**	27	1	0	0	0	0	28
8:15	37	6	0	2	0	0	45	**20:15**	24	0	2	1	0	0	27
8:30	35	3	0	2	0	0	40	**20:30**	33	1	1	1	0	0	36
8:45	37	3	1	2	0	0	43	**20:45**	28	0	1	1	0	0	30
9:00	19	2	0	0	0	0	21	**21:00**	23	0	1	2	0	0	26
9:15	45	10	0	2	0	0	57	**21:15**	19	0	0	0	0	0	19
9:30	36	2	0	0	0	0	38	**21:30**	24	0	1	1	0	0	26
9:45	26	5	0	1	0	0	32	**21:45**	24	0	0	0	0	0	24
10:00	33	5	0	1	0	0	39	**22:00**	29	0	0	0	0	0	29
10:15	36	5	1	0	0	0	42	**22:15**	11	0	0	0	0	0	11
10:30	30	7	0	2	0	0	39	**22:30**	33	1	0	0	0	0	34
10:45	32	6	1	1	0	0	40	**22:45**	23	0	0	0	0	0	23
11:00	45	5	0	0	0	0	50	**23:00**	16	1	0	0	0	0	17
11:15	52	4	2	1	0	0	59	**23:15**	28	1	0	0	0	0	29
11:30	44	8	0	2	0	0	54	**23:30**	28	0	0	0	0	0	28
11:45	40	7	0	0	0	0	47	**23:45**	9	0	0	1	0	0	10
TOTAL	1,138	179	13	37	0	0	1,367	**TOTAL**	1,970	104	24	41	1	0	2,140

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	210

AM PEAK HOUR	2:00 PM
AM PEAK VOLUME	299

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

	1	2	3	4	5	6	TOTAL
TOTAL: AM+PM	3,108	283	37	78	1	0	3,507
% OF TOTAL	88.6%	8.1%	1.1%	2.2%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023 **CITY:** Perris

JOB #: SC4061 **LOCATION:** CLASS2 Webster north of Ramona

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	13	0	1	0	0	0	14	12:00	86	7	2	2	0	0	97
0:15	13	0	0	0	0	0	13	12:15	65	11	3	3	1	0	83
0:30	20	0	0	1	0	0	21	12:30	86	13	0	5	0	0	104
0:45	19	0	1	0	0	0	20	12:45	81	15	1	6	0	0	103
1:00	17	2	0	1	0	0	20	13:00	75	12	1	2	0	0	90
1:15	6	1	0	0	0	0	7	13:15	80	10	2	2	0	0	94
1:30	19	1	0	0	0	0	20	13:30	102	15	2	2	0	0	121
1:45	13	0	0	0	0	0	13	13:45	128	8	2	2	0	0	140
2:00	6	1	0	0	0	0	7	14:00	116	16	2	4	0	0	138
2:15	8	0	0	0	0	0	8	14:15	106	6	3	3	0	0	118
2:30	21	0	0	0	0	0	21	14:30	168	5	0	5	0	0	178
2:45	9	0	0	0	0	0	9	14:45	156	11	1	5	0	0	173
3:00	20	0	0	0	0	0	20	15:00	114	14	1	3	0	0	132
3:15	15	3	0	0	0	0	18	15:15	99	11	5	5	0	0	120
3:30	35	2	1	0	0	0	38	15:30	136	6	0	3	0	0	145
3:45	29	4	0	0	0	0	33	15:45	101	5	3	4	0	0	113
4:00	33	1	0	0	0	0	34	16:00	101	7	0	1	0	0	109
4:15	36	4	0	1	0	0	41	16:15	60	7	1	0	0	0	68
4:30	61	9	1	1	0	0	72	16:30	104	6	0	0	0	0	110
4:45	57	4	0	2	0	0	63	16:45	104	5	1	2	0	0	112
5:00	69	3	0	2	0	0	74	17:00	85	8	0	0	0	0	93
5:15	63	3	0	4	0	0	70	17:15	80	5	0	1	0	0	86
5:30	104	7	0	1	0	0	112	17:30	102	4	0	1	0	0	107
5:45	132	6	4	1	0	0	143	17:45	82	4	1	0	0	0	87
6:00	63	11	1	6	0	0	81	18:00	71	8	1	0	0	0	80
6:15	80	10	0	3	0	0	93	18:15	94	2	2	3	0	0	101
6:30	137	10	1	4	0	0	152	18:30	79	3	2	3	0	0	87
6:45	141	13	0	4	0	0	158	18:45	72	3	2	1	0	0	78
7:00	104	16	1	4	0	0	125	19:00	63	4	1	2	0	0	70
7:15	79	13	2	4	0	0	98	19:15	43	3	0	1	0	0	47
7:30	83	7	0	1	0	0	91	19:30	56	1	0	1	0	0	58
7:45	76	11	0	1	0	0	88	19:45	66	1	0	2	0	0	69
8:00	90	8	0	0	0	1	99	20:00	48	2	0	0	0	0	50
8:15	73	11	1	2	0	0	87	20:15	40	0	2	1	0	0	43
8:30	61	10	0	2	0	0	73	20:30	59	3	2	3	0	0	67
8:45	70	7	3	5	0	0	85	20:45	52	0	1	2	0	0	55
9:00	49	4	0	0	0	0	53	21:00	49	0	1	2	0	0	52
9:15	83	13	0	3	0	0	99	21:15	46	1	0	0	0	0	47
9:30	60	7	0	1	0	0	68	21:30	54	0	3	2	0	0	59
9:45	59	8	1	1	0	0	69	21:45	71	0	2	0	0	0	73
10:00	73	15	0	2	0	0	90	22:00	41	1	0	0	0	0	42
10:15	67	10	2	0	0	0	79	22:15	27	1	0	1	0	0	29
10:30	74	12	1	3	0	0	90	22:30	47	3	0	0	0	0	50
10:45	71	15	1	3	0	0	90	22:45	38	1	0	0	0	0	39
11:00	80	8	0	2	0	0	90	23:00	27	1	0	0	0	0	28
11:15	79	8	2	3	0	0	92	23:15	35	1	0	0	0	0	36
11:30	76	14	1	2	0	0	93	23:30	36	0	0	0	0	0	36
11:45	80	11	2	0	0	0	93	23:45	16	0	0	2	0	0	18
TOTAL	2,726	303	27	70	0	1	3,127	TOTAL	3,647	250	50	87	1	0	4,035

AM PEAK HOUR	6:30 AM
AM PEAK VOLUME	533

AM PEAK HOUR	2:00 PM
AM PEAK VOLUME	607

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

TOTAL: AM+PM	6,373	553	77	157	1	1	7,162
% OF TOTAL	89.0%	7.7%	1.1%	2.2%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023 **CITY:** Perris

JOB #: SC4061 **LOCATION:** CLASS3 Ramona west of Webster

AM TIME	EB 1	2	3	4	5	6	TOTAL	PM Time	EB 1	2	3	4	5	6	TOTAL
0:00	77	2	1	4	0	0	84	**12:00**	191	22	5	25	0	1	244
0:15	53	0	0	6	0	0	59	**12:15**	208	15	3	24	0	0	250
0:30	68	1	1	11	0	0	81	**12:30**	237	21	2	18	0	1	279
0:45	45	0	1	8	0	0	54	**12:45**	232	24	5	21	0	0	282
1:00	46	3	0	2	0	0	51	**13:00**	248	29	8	17	0	0	302
1:15	49	0	1	9	0	0	59	**13:15**	273	14	9	24	1	0	321
1:30	47	0	0	11	0	0	58	**13:30**	320	21	3	20	0	1	365
1:45	48	0	0	7	0	0	55	**13:45**	365	24	3	22	0	4	418
2:00	25	0	0	8	0	0	33	**14:00**	309	29	1	26	0	0	365
2:15	23	2	0	8	0	0	33	**14:15**	372	24	2	12	0	0	410
2:30	40	0	0	4	0	0	44	**14:30**	292	22	3	15	0	2	334
2:45	31	1	0	9	0	0	41	**14:45**	313	28	5	13	1	1	361
3:00	30	1	0	3	0	0	34	**15:00**	270	17	7	17	0	1	312
3:15	47	2	0	4	0	0	53	**15:15**	270	28	4	12	0	5	319
3:30	60	3	3	10	0	0	76	**15:30**	305	20	5	14	0	1	345
3:45	105	2	2	9	0	0	118	**15:45**	345	24	5	12	0	3	389
4:00	102	1	1	4	0	3	111	**16:00**	315	21	1	14	0	0	351
4:15	144	2	2	6	0	0	154	**16:15**	294	17	1	14	0	1	327
4:30	217	4	2	7	0	0	230	**16:30**	358	12	4	10	0	0	384
4:45	214	5	1	6	0	0	226	**16:45**	316	26	4	12	1	1	360
5:00	129	4	1	6	0	1	141	**17:00**	337	18	1	9	0	0	365
5:15	192	4	6	6	0	0	208	**17:15**	311	15	2	11	0	0	339
5:30	270	9	3	7	0	0	289	**17:30**	345	15	1	12	0	1	374
5:45	280	21	6	9	0	0	316	**17:45**	323	11	4	11	0	0	349
6:00	169	19	10	12	0	0	210	**18:00**	323	17	1	16	0	0	357
6:15	180	20	7	14	0	1	222	**18:15**	339	18	3	11	0	0	371
6:30	235	15	10	9	0	1	270	**18:30**	306	18	5	13	0	1	343
6:45	229	19	11	14	0	2	275	**18:45**	282	7	3	11	0	0	303
7:00	251	26	9	9	1	1	297	**19:00**	270	15	4	8	0	0	297
7:15	282	13	7	13	0	0	315	**19:15**	229	6	1	11	0	1	248
7:30	272	20	7	18	0	2	319	**19:30**	221	7	2	15	1	1	247
7:45	321	13	2	13	0	1	350	**19:45**	261	9	3	6	0	0	279
8:00	285	21	4	10	0	1	321	**20:00**	217	9	1	8	0	0	235
8:15	229	8	7	11	0	3	258	**20:15**	213	5	0	14	0	0	232
8:30	194	31	1	15	0	0	241	**20:30**	200	7	4	9	0	0	220
8:45	173	25	2	24	0	1	225	**20:45**	223	5	0	13	0	0	241
9:00	159	19	7	10	0	1	196	**21:00**	176	1	1	18	0	0	196
9:15	185	22	2	17	0	0	226	**21:15**	209	5	4	13	0	0	231
9:30	154	25	3	18	0	0	200	**21:30**	190	5	1	12	0	0	208
9:45	181	20	5	16	0	0	222	**21:45**	160	5	1	8	0	0	174
10:00	182	34	5	27	0	0	248	**22:00**	143	2	4	2	0	0	151
10:15	191	23	3	27	0	1	245	**22:15**	112	3	2	4	0	0	121
10:30	208	20	4	18	0	0	250	**22:30**	163	3	0	2	0	0	168
10:45	181	29	4	30	0	2	246	**22:45**	168	5	0	7	0	0	180
11:00	158	33	4	28	0	0	223	**23:00**	119	0	1	7	0	0	127
11:15	204	14	2	33	0	0	253	**23:15**	121	0	1	4	0	0	126
11:30	196	21	3	21	0	0	241	**23:30**	103	3	0	12	0	0	118
11:45	239	17	6	30	0	0	292	**23:45**	75	0	0	4	0	0	79
TOTAL	7,400	574	156	601	1	21	8,753	**TOTAL**	11,972	652	130	613	4	26	13,397
				AM PEAK HOUR			7:15 AM						**AM PEAK HOUR**		1:30 PM
				AM PEAK VOLUME			1,305						**AM PEAK VOLUME**		1,558

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	19,372	1,226	286	1,214	5	47	22,150
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	87.5%	5.5%	1.3%	5.5%	0.0%	0.2%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	39,106	2,540	637	2,337	10	85	44,715
CLASS 6	Buses	**% OF TOTAL**	87.5%	5.7%	1.4%	5.2%	0.0%	0.2%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023
JOB #: SC4061

CITY: Perris
LOCATION: CLASS3 Ramona west of Webster

AM TIME	WB 1	2	3	4	5	6	TOTAL	PM Time	WB 1	2	3	4	5	6	TOTAL
0:00	53	0	0	3	0	0	56	**12:00**	268	16	4	19	0	0	307
0:15	40	0	1	6	0	0	47	**12:15**	248	20	6	25	1	1	301
0:30	50	1	2	5	0	0	58	**12:30**	254	18	2	13	0	0	287
0:45	42	2	2	2	0	0	48	**12:45**	269	22	7	16	1	1	316
1:00	45	0	0	5	0	0	50	**13:00**	258	24	5	26	0	1	314
1:15	22	1	0	5	0	0	28	**13:15**	275	19	8	22	0	1	325
1:30	49	1	1	5	0	0	56	**13:30**	275	26	10	12	0	1	324
1:45	58	0	2	8	0	0	68	**13:45**	286	22	7	21	1	0	337
2:00	37	2	1	10	0	0	50	**14:00**	235	19	17	22	0	0	293
2:15	34	0	1	12	0	0	47	**14:15**	240	21	6	19	0	1	287
2:30	73	1	1	9	0	0	84	**14:30**	333	14	10	12	0	1	370
2:45	68	2	3	4	0	0	77	**14:45**	263	19	5	20	0	0	307
3:00	75	3	1	9	0	0	88	**15:00**	278	15	4	12	0	2	311
3:15	84	4	2	6	0	0	96	**15:15**	298	19	9	13	0	1	340
3:30	138	5	2	3	0	0	148	**15:30**	341	18	6	20	0	0	385
3:45	145	7	2	7	0	0	161	**15:45**	268	11	3	11	0	1	294
4:00	154	13	1	3	0	0	171	**16:00**	277	20	2	14	0	2	315
4:15	226	18	0	5	0	0	249	**16:15**	288	17	2	9	0	1	317
4:30	250	25	4	9	0	0	288	**16:30**	305	13	4	10	0	0	332
4:45	263	16	1	7	0	0	287	**16:45**	301	8	4	10	0	0	323
5:00	257	29	0	10	0	0	296	**17:00**	254	10	4	9	0	1	278
5:15	218	30	1	10	0	0	259	**17:15**	285	13	4	13	0	0	315
5:30	244	20	3	11	0	0	278	**17:30**	286	6	2	8	0	0	302
5:45	282	20	7	12	0	0	321	**17:45**	272	7	3	6	0	0	288
6:00	267	42	6	14	0	0	329	**18:00**	300	10	0	8	0	0	318
6:15	286	39	7	12	0	0	344	**18:15**	274	4	2	12	0	0	292
6:30	297	32	7	23	0	0	359	**18:30**	290	11	3	12	0	1	317
6:45	302	36	1	11	0	0	350	**18:45**	214	10	6	11	0	1	242
7:00	300	38	4	13	0	1	356	**19:00**	200	7	7	7	0	0	221
7:15	336	24	4	15	0	1	380	**19:15**	185	5	6	8	0	1	205
7:30	318	20	4	13	0	0	355	**19:30**	180	8	3	15	0	0	206
7:45	265	24	3	17	0	2	311	**19:45**	163	5	2	17	1	0	188
8:00	280	24	3	7	0	2	316	**20:00**	159	9	2	11	0	0	181
8:15	296	25	4	10	0	0	335	**20:15**	179	5	2	16	0	0	202
8:30	272	23	4	11	0	0	310	**20:30**	207	7	1	17	0	0	232
8:45	267	20	8	10	0	0	305	**20:45**	184	2	2	7	0	0	195
9:00	208	23	4	14	0	6	255	**21:00**	156	3	2	8	0	1	170
9:15	239	32	5	10	0	0	286	**21:15**	124	4	2	11	1	0	142
9:30	240	19	3	8	0	1	271	**21:30**	131	4	4	12	0	0	151
9:45	193	15	7	16	0	0	231	**21:45**	112	2	2	10	0	0	126
10:00	248	21	4	17	0	4	294	**22:00**	110	4	5	19	0	0	138
10:15	218	21	6	14	0	0	259	**22:15**	106	2	2	11	0	0	121
10:30	228	17	7	21	0	0	273	**22:30**	149	4	1	8	0	0	162
10:45	194	20	8	23	0	0	245	**22:45**	116	3	1	6	0	0	126
11:00	225	15	5	13	0	0	258	**23:00**	143	3	1	4	0	0	151
11:15	240	15	5	11	0	0	271	**23:15**	128	2	2	3	0	0	135
11:30	265	26	6	19	0	2	318	**23:30**	91	2	1	10	0	0	104
11:45	226	30	5	21	0	0	282	**23:45**	59	0	0	9	0	0	68
TOTAL	9,117	801	158	509	0	19	10,604	**TOTAL**	10,617	513	193	614	5	19	11,961

AM PEAK HOUR	6:30 AM
AM PEAK VOLUME	1,445

AM PEAK HOUR	2:45 PM
AM PEAK VOLUME	1,343

TOTAL: AM+PM	19,734	1,314	351	1,123	5	38	22,565
% OF TOTAL	87.5%	5.8%	1.6%	5.0%	0.0%	0.2%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, May 25, 2023 **CITY:** Perris

JOB #: SC4061 **LOCATION:** CLASS3 Ramona west of Webster

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	130	2	1	7	0	0	140	12:00	459	38	9	44	0	1	551
0:15	93	0	1	12	0	0	106	12:15	456	35	9	49	1	1	551
0:30	118	2	3	16	0	0	139	12:30	491	39	4	31	0	1	566
0:45	87	2	3	10	0	0	102	12:45	501	46	12	37	1	1	598
1:00	91	3	0	7	0	0	101	13:00	506	53	13	43	0	1	616
1:15	71	1	1	14	0	0	87	13:15	548	33	17	46	1	1	646
1:30	96	1	1	16	0	0	114	13:30	595	47	13	32	0	2	689
1:45	106	0	2	15	0	0	123	13:45	651	46	10	43	1	4	755
2:00	62	2	1	18	0	0	83	14:00	544	48	18	48	0	0	658
2:15	57	2	1	20	0	0	80	14:15	612	45	8	31	0	1	697
2:30	113	1	1	13	0	0	128	14:30	625	36	13	27	0	3	704
2:45	99	3	3	13	0	0	118	14:45	576	47	10	33	1	1	668
3:00	105	4	1	12	0	0	122	15:00	548	32	11	29	0	3	623
3:15	131	6	2	10	0	0	149	15:15	568	47	13	25	0	6	659
3:30	198	8	5	13	0	0	224	15:30	646	38	11	34	0	1	730
3:45	250	9	4	16	0	0	279	15:45	613	35	8	23	0	4	683
4:00	256	14	2	7	0	3	282	16:00	592	41	3	28	0	2	666
4:15	370	20	2	11	0	0	403	16:15	582	34	3	23	0	2	644
4:30	467	29	6	16	0	0	518	16:30	663	25	8	20	0	0	716
4:45	477	21	2	13	0	0	513	16:45	617	34	8	22	1	1	683
5:00	386	33	1	16	0	1	437	17:00	591	28	5	18	0	1	643
5:15	410	34	7	16	0	0	467	17:15	596	28	6	24	0	0	654
5:30	514	29	6	18	0	0	567	17:30	631	21	3	20	0	1	676
5:45	562	41	13	21	0	0	637	17:45	595	18	7	17	0	0	637
6:00	436	61	16	26	0	0	539	18:00	623	27	1	24	0	0	675
6:15	466	59	14	26	0	1	566	18:15	613	22	5	23	0	0	663
6:30	532	47	17	32	0	1	629	18:30	596	29	8	25	0	2	660
6:45	531	55	12	25	0	2	625	18:45	496	17	9	22	0	1	545
7:00	551	64	13	22	1	2	653	19:00	470	22	11	15	0	0	518
7:15	618	37	11	28	0	1	695	19:15	414	11	7	19	0	2	453
7:30	590	40	11	31	0	2	674	19:30	401	15	5	30	1	1	453
7:45	586	37	5	30	0	3	661	19:45	424	14	5	23	1	0	467
8:00	565	45	7	17	0	3	637	20:00	376	18	3	19	0	0	416
8:15	525	33	11	21	0	3	593	20:15	392	10	2	30	0	0	434
8:30	466	54	5	26	0	0	551	20:30	407	14	5	26	0	0	452
8:45	440	45	10	34	0	1	530	20:45	407	7	2	20	0	0	436
9:00	367	42	11	24	0	7	451	21:00	332	4	3	26	0	1	366
9:15	424	54	7	27	0	0	512	21:15	333	9	6	24	1	0	373
9:30	394	44	6	26	0	1	471	21:30	321	9	5	24	0	0	359
9:45	374	35	12	32	0	0	453	21:45	272	7	3	18	0	0	300
10:00	430	55	9	44	0	4	542	22:00	253	6	9	21	0	0	289
10:15	409	44	9	41	0	1	504	22:15	218	5	4	15	0	0	242
10:30	436	37	11	39	0	0	523	22:30	312	7	1	10	0	0	330
10:45	375	49	12	53	0	2	491	22:45	284	8	1	13	0	0	306
11:00	383	48	9	41	0	0	481	23:00	262	3	2	11	0	0	278
11:15	444	29	7	44	0	0	524	23:15	249	2	3	7	0	0	261
11:30	461	47	9	40	0	2	559	23:30	194	5	1	22	0	0	222
11:45	465	47	11	51	0	0	574	23:45	134	0	0	13	0	0	147
TOTAL	16,517	1,375	314	1,110	1	40	19,357	TOTAL	22,589	1,165	323	1,227	9	45	25,358

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	2,683

AM PEAK HOUR	1:45 PM
AM PEAK VOLUME	2,814

		TOTAL: AM+PM	39,106	2,540	637	2,337	10	85	44,715
CLASS 1	PASSENGER VEHICLES	% OF TOTAL	87.5%	5.7%	1.4%	5.2%	0.0%	0.2%	100.0%
CLASS 2	2-AXLE TRUCKS								
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV								
CLASS 6	Buses								

INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

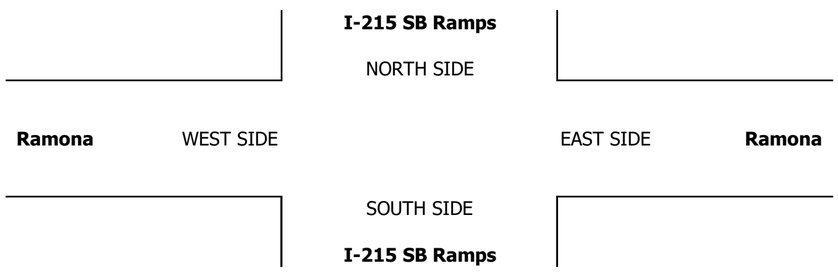
DATE:					
Thu, May 25, 23	LOCATION:	Perris	PROJECT #:	SC4061	
	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1	
	EAST & WEST:	Ramona	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

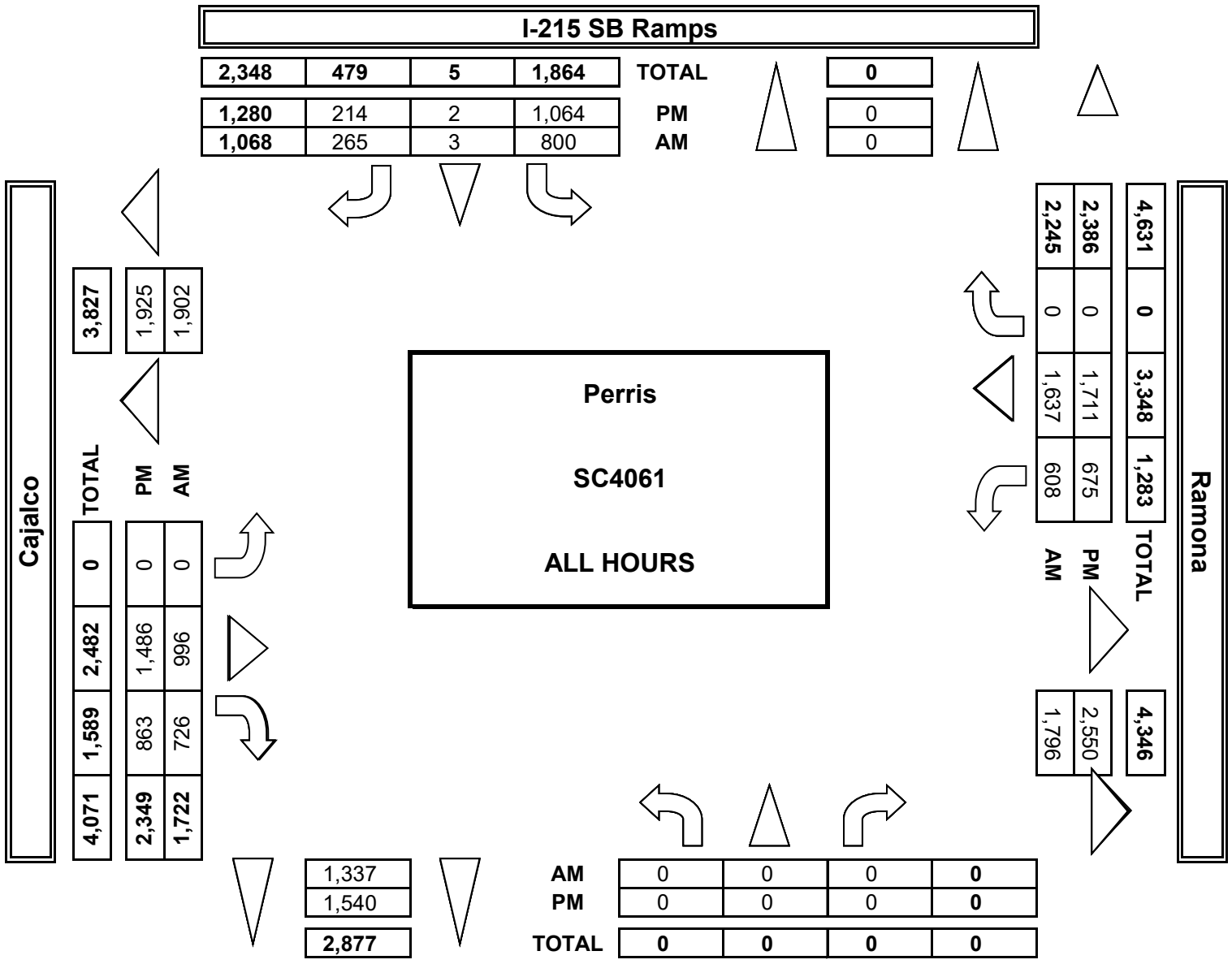
		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Cajalco			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
		X	X	X	1.5	0.5	1	X	2	0	1	2	X		0	0	0	0		X	0	0	X
AM	7:00 AM	0	0	0	109	1	35	0	115	69	73	209	0	611	0	0	0	0	0	0	13	22	0
	7:15 AM	0	0	0	94	1	30	0	117	97	79	205	0	623	0	0	0	0	0	0	11	29	0
	7:30 AM	0	0	0	102	0	30	0	138	108	70	249	0	697	0	0	0	0	0	0	8	45	0
	7:45 AM	0	0	0	121	0	24	0	143	118	66	214	0	686	0	0	0	0	0	0	11	40	0
	8:00 AM	0	0	0	113	1	28	0	143	81	98	180	0	644	0	0	0	0	0	0	14	28	0
	8:15 AM	0	0	0	105	0	36	0	107	84	80	208	0	620	0	0	0	0	0	0	11	28	0
	8:30 AM	0	0	0	72	0	37	0	112	85	68	183	0	557	0	0	0	0	0	0	11	28	0
	8:45 AM	0	0	0	84	0	45	0	121	84	74	189	0	597	0	0	0	0	0	0	20	35	0
	VOLUMES	0	0	0	800	3	265	0	996	726	608	1,637	0	5,035	0	0	0	0	0	0	99	255	0
	APPROACH %	0%	0%	0%	75%	0%	25%	0%	58%	42%	27%	73%	0%										
	APP/DEPART	0	/	0	1,068	/	1,337	1,722	/	1,796	2,245	/	1,902	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	0	0	0	430	2	112	0	541	404	313	848	0	2,650						0	44	142	0
	APPROACH %	0%	0%	0%	79%	0%	21%	0%	57%	43%	27%	73%	0%										
	PEAK HR FACTOR		0.000			0.938			0.905			0.910		0.951									
	APP/DEPART	0	/	0	544	/	719	945	/	971	1,161	/	960	0									
PM	04:00 PM	0	0	0	109	2	27	0	175	85	85	237	0	720	0	0	0	0	0	0	8	39	0
	4:15 PM	0	0	0	123	0	27	0	169	114	88	211	0	732	0	0	0	0	0	0	3	42	0
	4:30 PM	0	0	0	131	0	37	0	181	111	83	226	0	769	0	0	0	0	0	0	12	45	0
	4:45 PM	0	0	0	136	0	20	0	183	100	93	224	0	756	0	0	0	0	0	0	9	37	0
	5:00 PM	0	0	0	127	0	24	0	209	117	83	201	0	761	0	0	0	0	0	0	8	48	0
	5:15 PM	0	0	0	136	0	25	0	179	108	78	224	0	750	0	0	0	0	0	0	15	49	0
	5:30 PM	0	0	0	160	0	22	0	191	108	90	206	0	777	0	0	0	0	0	0	9	40	0
	5:45 PM	0	0	0	142	0	32	0	199	120	75	182	0	750	0	0	0	0	0	0	17	48	0
	VOLUMES	0	0	0	1,064	2	214	0	1,486	863	675	1,711	0	6,015	0	0	0	0	0	0	81	348	0
	APPROACH %	0%	0%	0%	83%	0%	17%	0%	63%	37%	28%	72%	0%										
	APP/DEPART	0	/	0	1,280	/	1,540	2,349	/	2,550	2,386	/	1,925	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	0	0	0	559	0	91	0	762	433	344	855	0	3,044						0	41	174	0
	APPROACH %	0%	0%	0%	86%	0%	14%	0%	64%	36%	29%	71%	0%										
	PEAK HR FACTOR		0.000			0.893			0.916			0.946		0.979									
	APP/DEPART	0	/	0	650	/	777	1,195	/	1,321	1,199	/	946	0									

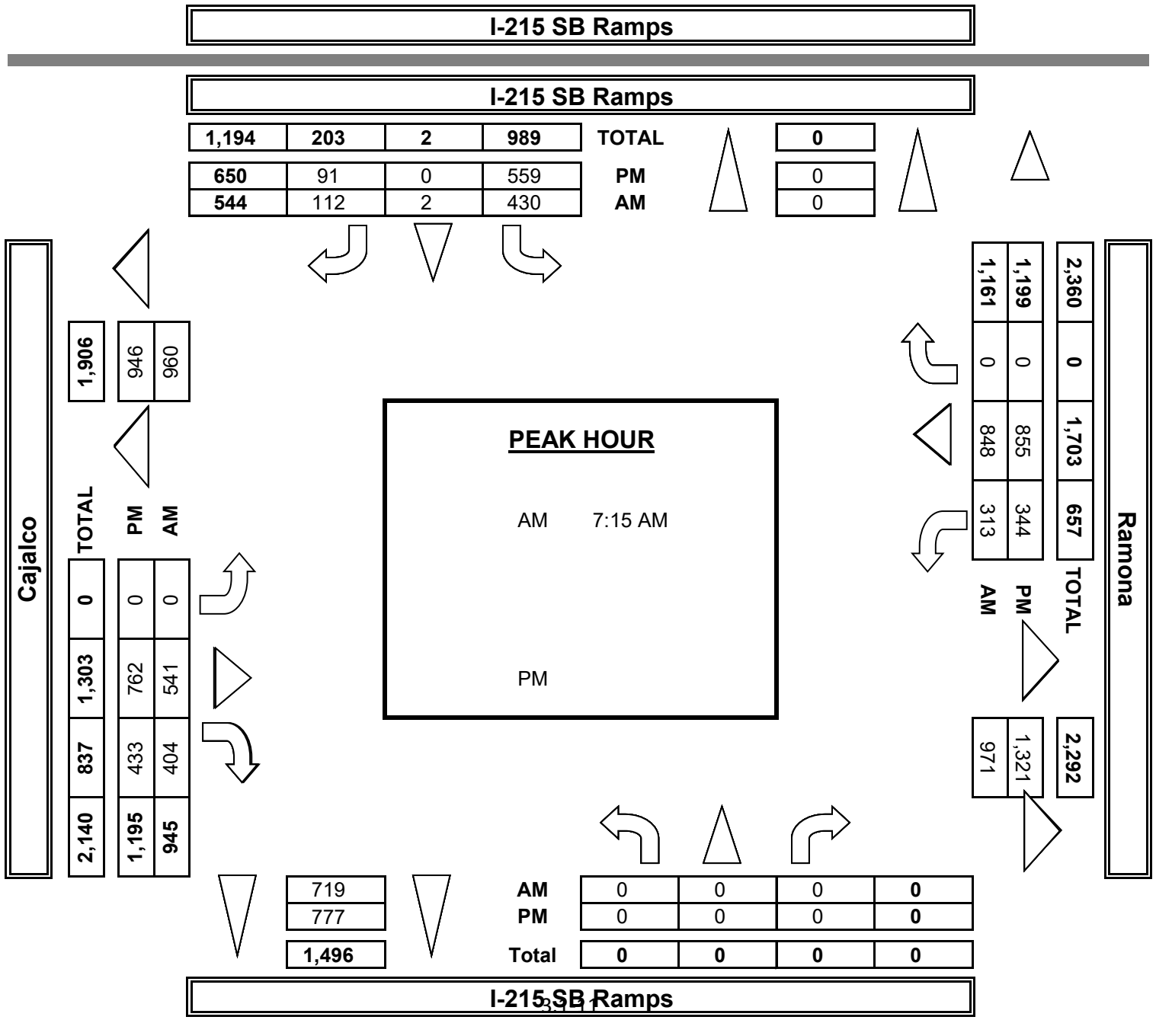


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	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
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	TOTAL	0	0	0	3	3	0	0	0	3	3	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	I-215 SB Ramps
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND I-215 SB Ramps			SOUTHBOUNI I-215 SB Ramps	
		NL	NT	NR	SL	ST
	LANES:	X	X	X	1.5	0.5
AM	7:00 AM	0	0	0	136	2
	7:15 AM	0	0	0	113	1
	7:30 AM	0	0	0	124	0
	7:45 AM	0	0	0	146	0
	8:00 AM	0	0	0	137	1
	8:15 AM	0	0	0	134	0
	8:30 AM	0	0	0	88	0
	8:45 AM	0	0	0	120	0
	VOLUMES	0	0	0	997	4
	APPROACH %	0%	0%	0%	72%	0%
	APP/DEPART	0	/	0	1,380	/
	BEGIN PEAK HR		7:15 AM			
	VOLUMES	0	0	0	520	2
	APPROACH %	0%	0%	0%	77%	0%
	PEAK HR FACTOR		0.000			0.936
	APP/DEPART	0	/	0	678	/
PM	04:00 PM	0	0	0	130	2
	4:15 PM	0	0	0	147	0
	4:30 PM	0	0	0	149	0
	4:45 PM	0	0	0	151	0
	5:00 PM	0	0	0	138	0
	5:15 PM	0	0	0	159	0
	5:30 PM	0	0	0	176	0
	5:45 PM	0	0	0	163	0
	VOLUMES	0	0	0	1,212	2
	APPROACH %	0%	0%	0%	79%	0%

APP/DEPART	0	/	0	1,535	/	
BEGIN PEAK HR		4:45 PM				
VOLUMES	0	0	0	623	0	
APPROACH %	0%	0%	0%	83%	0%	
PEAK HR FACTOR		0.000			0.877	
APP/DEPART	0	/	0	751	/	

I-2

Ramona WEST SIDE

I-2

RNING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 1
CONTROL: SIGNAL

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ramona			WESTBOUND Ramona			
SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
52	0	144	88	80	222	0	723
39	0	139	122	81	229	0	724
40	0	169	132	77	270	0	812
36	0	159	141	75	251	0	807
42	0	165	96	105	199	0	744
54	0	123	102	87	243	0	741
54	0	137	100	77	208	0	664
64	0	154	106	82	218	0	742
379	0	1,189	886	663	1,839	0	5,955
27%	0%	57%	43%	26%	74%	0%	
1,552	2,075	/	2,186	2,501	/	2,218	0
156	0	632	491	338	948	0	3,086
23%	0%	56%	44%	26%	74%	0%	
		0.932			0.927		0.951
831	1,123	/	1,151	1,286	/	1,104	0
44	0	188	93	92	268	0	815
46	0	198	121	95	233	0	839
56	0	197	124	87	246	0	858
28	0	212	105	98	244	0	836
29	0	231	122	86	222	0	828
32	0	191	116	82	246	0	824
39	0	212	114	90	226	0	856
49	0	218	129	76	199	0	833
322	0	1,645	922	704	1,882	0	6,687
21%	0%	64%	36%	27%	73%	0%	

1,628	2,567	/	2,856	2,586	/	2,204	0
128 17%	0 0%	845 65% 0.921	456 35%	355 27%	937 73% 0.947	0 0%	3,343 0.977
811	1,301	/	1,468	1,292	/	1,065	0

215 SB Ramps

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

215 SB Ramps

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	84	0	23	0	89	49	63	190	0	498
	7:15 AM	0	0	0	80	1	21	0	103	75	75	183	0	538
	7:30 AM	0	0	0	82	0	20	0	116	85	62	229	0	594
	7:45 AM	0	0	0	103	0	14	0	130	96	57	176	0	576
	8:00 AM	0	0	0	93	1	19	0	125	68	88	158	0	552
	8:15 AM	0	0	0	84	0	22	0	95	68	73	175	0	517
	8:30 AM	0	0	0	58	0	20	0	89	70	59	159	0	455
	8:45 AM	0	0	0	58	0	31	0	95	66	66	163	0	479
	VOLUMES	0	0	0	642	2	170	0	842	577	543	1,433	0	4,209
	APPROACH %	0%	0%	0%	79%	0%	21%	0%	59%	41%	27%	73%	0%	
	APP/DEPART	0	/	0	814	/	1,122	1,419	/	1,484	1,976	/	1,603	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	358	2	74	0	474	324	282	746	0	2,260
	APPROACH %	0%	0%	0%	82%	0%	17%	0%	59%	41%	27%	73%	0%	
	PEAK HR FACTOR		0.000			0.927			0.883			0.883		0.951
	APP/DEPART	0	/	0	434	/	608	798	/	832	1,028	/	820	0
PM	04:00 PM	0	0	0	92	2	17	0	166	76	78	209	0	640
	4:15 PM	0	0	0	107	0	15	0	147	101	79	193	0	642
	4:30 PM	0	0	0	118	0	22	0	167	100	79	208	0	694
	4:45 PM	0	0	0	120	0	13	0	155	93	88	207	0	676
	5:00 PM	0	0	0	120	0	20	0	190	110	79	180	0	699
	5:15 PM	0	0	0	121	0	20	0	168	97	71	204	0	681
	5:30 PM	0	0	0	148	0	11	0	173	100	90	189	0	711
	5:45 PM	0	0	0	126	0	22	0	185	112	74	168	0	687
	VOLUMES	0	0	0	952	2	140	0	1,351	789	638	1,558	0	5,430
	APPROACH %	0%	0%	0%	87%	0%	13%	0%	63%	37%	29%	71%	0%	
	APP/DEPART	0	/	0	1,094	/	1,429	2,140	/	2,303	2,196	/	1,698	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	509	0	64	0	686	400	328	780	0	2,767
	APPROACH %	0%	0%	0%	89%	0%	11%	0%	63%	37%	30%	70%	0%	
	PEAK HR FACTOR		0.000			0.901			0.905			0.939		0.973
	APP/DEPART	0	/	0	573	/	728	1,086	/	1,195	1,108	/	844	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	10	15	0
0	8	21	0
0	3	38	0
0	6	32	0
0	9	25	0
0	7	22	0
0	5	22	0
0	15	27	0
0	63	202	0
0	26	116	0
0	7	33	0
0	3	38	0
0	6	42	0
0	6	35	0
0	7	43	0
0	13	45	0
0	5	35	0
0	11	46	0
0	58	317	0
0	31	158	0

I-215 SB Ramps

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

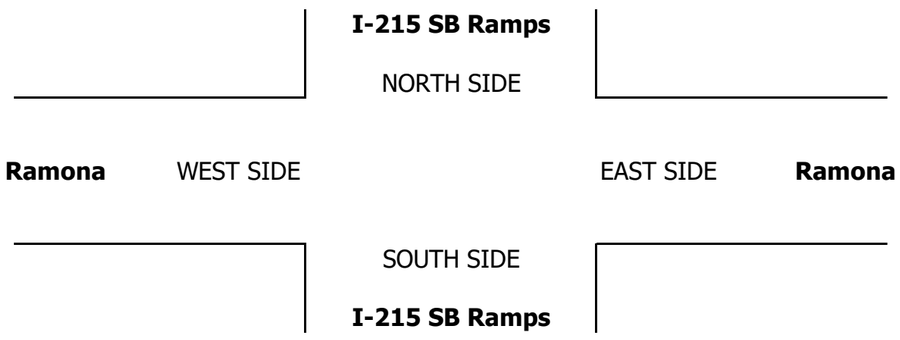
		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	10	1	4	0	14	10	9	16	0	64
	7:15 AM	0	0	0	4	0	4	0	1	12	4	10	0	35
	7:30 AM	0	0	0	10	0	6	0	6	14	6	11	0	53
	7:45 AM	0	0	0	7	0	5	0	6	14	6	22	0	60
	8:00 AM	0	0	0	10	0	3	0	8	6	9	15	0	51
	8:15 AM	0	0	0	6	0	7	0	1	9	5	18	0	46
	8:30 AM	0	0	0	8	0	8	0	14	9	6	14	0	59
	8:45 AM	0	0	0	9	0	5	0	13	8	4	13	0	52
	VOLUMES	0	0	0	64	1	42	0	63	82	49	119	0	420
	APPROACH %	0%	0%	0%	60%	1%	39%	0%	43%	57%	29%	71%	0%	
	APP/DEPART	0	/	0	107	/	132	145	/	127	168	/	161	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	31	0	18	0	21	46	25	58	0	199
	APPROACH %	0%	0%	0%	63%	0%	37%	0%	31%	69%	30%	70%	0%	
	PEAK HR FACTOR		0.000			0.766			0.838			0.741		0.829
	APP/DEPART	0	/	0	49	/	71	67	/	52	83	/	76	0
PM	04:00 PM	0	0	0	9	0	2	0	3	6	5	15	0	40
	4:15 PM	0	0	0	4	0	3	0	9	12	6	9	0	43
	4:30 PM	0	0	0	4	0	7	0	6	5	2	8	0	32
	4:45 PM	0	0	0	9	0	2	0	17	5	3	9	0	45
	5:00 PM	0	0	0	2	0	2	0	10	6	3	10	0	33
	5:15 PM	0	0	0	4	0	2	0	5	9	7	9	0	36
	5:30 PM	0	0	0	5	0	3	0	9	6	0	8	0	31
	5:45 PM	0	0	0	4	0	2	0	6	5	1	6	0	24
	VOLUMES	0	0	0	41	0	23	0	65	54	27	74	0	284
	APPROACH %	0%	0%	0%	64%	0%	36%	0%	55%	45%	27%	73%	0%	
	APP/DEPART	0	/	0	64	/	81	119	/	106	101	/	97	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	20	0	9	0	41	26	13	36	0	145
	APPROACH %	0%	0%	0%	69%	0%	31%	0%	61%	39%	27%	73%	0%	
	PEAK HR FACTOR		0.000			0.659			0.761			0.766		0.806
	APP/DEPART	0	/	0	29	/	39	67	/	61	49	/	45	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	2	3	0
0	3	5	0
0	3	5	0
0	2	3	0
0	2	2	0
0	1	3	0
0	3	4	0
0	2	5	0
0	18	30	0
0	10	15	0
0	1	5	0
0	0	3	0
0	4	1	0
0	1	2	0
0	1	5	0
0	1	3	0
0	2	3	0
0	0	1	0
0	10	23	0
0	5	13	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

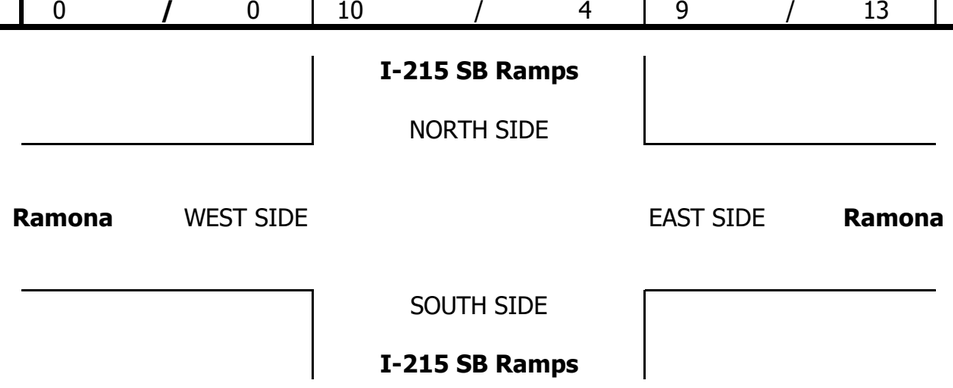
		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	8	0	1	0	0	6	0	1	0	16
	7:15 AM	0	0	0	3	0	3	0	5	1	0	4	0	16
	7:30 AM	0	0	0	2	0	1	0	3	1	0	3	0	10
	7:45 AM	0	0	0	1	0	1	0	0	0	0	3	0	5
	8:00 AM	0	0	0	1	0	0	0	1	2	0	2	0	6
	8:15 AM	0	0	0	4	0	0	0	4	1	0	4	0	13
	8:30 AM	0	0	0	0	0	5	0	0	1	0	2	0	8
	8:45 AM	0	0	0	3	0	2	0	0	1	2	2	0	10
	VOLUMES	0	0	0	22	0	13	0	13	13	2	21	0	84
	APPROACH %	0%	0%	0%	63%	0%	37%	0%	50%	50%	9%	91%	0%	
	APP/DEPART	0	/	0	35	/	15	26	/	35	23	/	34	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	7	0	5	0	9	4	0	12	0	37
	APPROACH %	0%	0%	0%	58%	0%	42%	0%	69%	31%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.500			0.542			0.750		0.578
	APP/DEPART	0	/	0	12	/	4	13	/	16	12	/	17	0
PM	04:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	4:15 PM	0	0	0	2	0	1	0	1	0	2	0	0	6
	4:30 PM	0	0	0	2	0	1	0	3	1	1	4	0	12
	4:45 PM	0	0	0	4	0	3	0	2	0	1	1	0	11
	5:00 PM	0	0	0	0	0	0	0	1	0	1	2	0	4
	5:15 PM	0	0	0	1	0	0	0	3	1	0	4	0	9
	5:30 PM	0	0	0	1	0	1	0	1	1	0	2	0	6
	5:45 PM	0	0	0	5	0	0	0	0	0	0	2	0	7
	VOLUMES	0	0	0	15	0	6	0	12	3	5	17	0	58
	APPROACH %	0%	0%	0%	71%	0%	29%	0%	80%	20%	23%	77%	0%	
	APP/DEPART	0	/	0	21	/	8	15	/	27	22	/	23	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	6	0	4	0	7	2	2	9	0	30
	APPROACH %	0%	0%	0%	60%	0%	40%	0%	78%	22%	18%	82%	0%	
	PEAK HR FACTOR		0.000			0.357			0.563			0.688		0.682
	APP/DEPART	0	/	0	10	/	4	9	/	13	11	/	13	0

U-TURNS

AM	NB	SB	EB	WB	TTL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
PM					
04:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0

RTOR

AM	NRR	SRR	ERR	WRR
	X	0	0	X
7:00 AM	0	0	2	0
7:15 AM	0	0	1	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	3	0	0
8:45 AM	0	0	1	0
VOLUMES	0	3	4	0
PEAK HR	0	0	1	0
PM				
04:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	1	0
4:45 PM	0	2	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	1	0
5:30 PM	0	0	1	0
5:45 PM	0	0	0	0
VOLUMES	0	2	3	0
PEAK HR	0	2	2	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

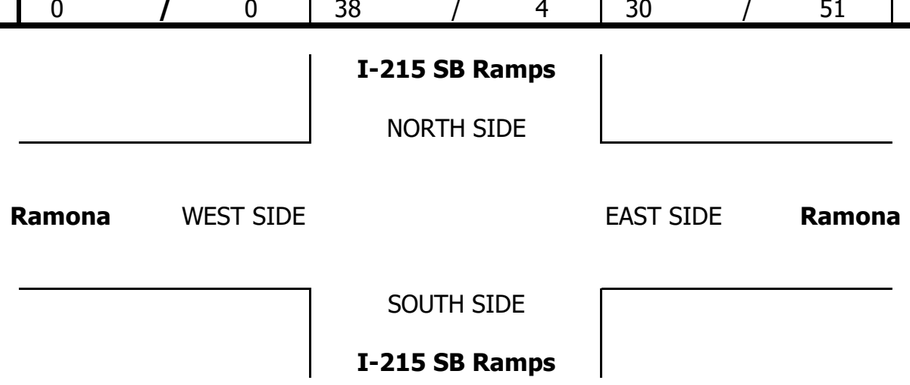
		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	7	0	7	0	10	4	1	2	0	31
	7:15 AM	0	0	0	7	0	2	0	8	9	0	7	0	33
	7:30 AM	0	0	0	7	0	3	0	12	8	2	6	0	38
	7:45 AM	0	0	0	10	0	4	0	6	8	3	10	0	41
	8:00 AM	0	0	0	9	0	6	0	8	5	1	4	0	33
	8:15 AM	0	0	0	11	0	7	0	4	6	2	11	0	41
	8:30 AM	0	0	0	6	0	4	0	9	4	3	8	0	34
	8:45 AM	0	0	0	14	0	7	0	13	8	2	9	0	53
	VOLUMES	0	0	0	71	0	40	0	70	52	14	57	0	304
	APPROACH %	0%	0%	0%	64%	0%	36%	0%	57%	43%	20%	80%	0%	
	APP/DEPART	0	/	0	111	/	66	122	/	141	71	/	97	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	33	0	15	0	34	30	6	27	0	145
	APPROACH %	0%	0%	0%	69%	0%	31%	0%	53%	47%	18%	82%	0%	
	PEAK HR FACTOR		0.000			0.800			0.800			0.635		0.884
	APP/DEPART	0	/	0	48	/	36	64	/	67	33	/	42	0
PM	04:00 PM	0	0	0	8	0	8	0	5	2	2	10	0	35
	4:15 PM	0	0	0	10	0	8	0	11	0	1	8	0	38
	4:30 PM	0	0	0	7	0	7	0	5	4	1	6	0	30
	4:45 PM	0	0	0	3	0	2	0	9	0	1	7	0	22
	5:00 PM	0	0	0	5	0	2	0	8	1	0	5	0	21
	5:15 PM	0	0	0	10	0	3	0	3	1	0	6	0	23
	5:30 PM	0	0	0	6	0	7	0	7	1	0	7	0	28
	5:45 PM	0	0	0	7	0	8	0	8	3	0	6	0	32
	VOLUMES	0	0	0	56	0	45	0	56	12	5	55	0	229
	APPROACH %	0%	0%	0%	55%	0%	45%	0%	82%	18%	8%	92%	0%	
	APP/DEPART	0	/	0	101	/	17	68	/	112	60	/	100	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	24	0	14	0	27	3	1	25	0	94
	APPROACH %	0%	0%	0%	63%	0%	37%	0%	90%	10%	4%	96%	0%	
	PEAK HR FACTOR		0.000			0.731			0.833			0.813		0.839
	APP/DEPART	0	/	0	38	/	4	30	/	51	26	/	39	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	1	2	0
0	0	2	0
0	2	2	0
0	3	5	0
0	3	1	0
0	3	3	0
0	0	2	0
0	3	2	0
0	15	19	0
0	8	10	0
0	0	0	0
0	0	0	0
0	2	1	0
0	0	0	0
0	0	0	0
0	1	0	0
0	2	1	0
0	6	1	0
0	11	3	0
0	3	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N

◄ W E ►

S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	1	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	1	1	/	0	0	/	0	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR			
NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

I-215 SB Ramps

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM		▲ N	
PM			
MD	◄ W		E ►
OTHER		S ▼	
OTHER			

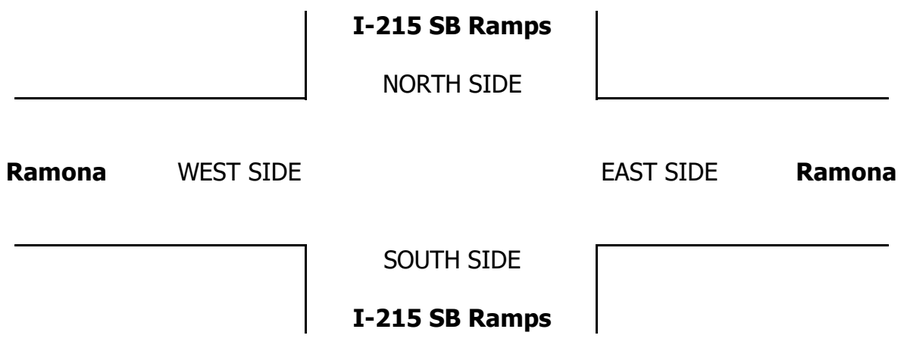
	NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	1	0	0	0	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	1	0	2	0	3
AM VOLUMES	0	0	0	1	0	0	0	7	2	0	7	0	17
AM APPROACH %	0%	0%	0%	100%	0%	0%	0%	78%	22%	0%	100%	0%	
AM APP/DEPART	0	/	0	1	/	2	9	/	8	7	/	7	0
AM BEGIN PEAK HR		7:15 AM											
AM VOLUMES	0	0	0	1	0	0	0	3	0	0	5	0	9
AM APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
AM PEAK HR FACTOR		0.000			0.250			0.750			0.417		0.563
AM APP/DEPART	0	/	0	1	/	0	3	/	4	5	/	5	0
04:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
4:15 PM	0	0	0	0	0	0	0	1	1	0	1	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM VOLUMES	0	0	0	0	0	0	0	2	4	0	7	0	13
PM APPROACH %	0%	0%	0%	0%	0%	0%	0%	33%	67%	0%	100%	0%	
PM APP/DEPART	0	/	0	0	/	4	6	/	2	7	/	7	0
PM BEGIN PEAK HR		4:45 PM											
PM VOLUMES	0	0	0	0	0	0	0	1	2	0	5	0	8
PM APPROACH %	0%	0%	0%	0%	0%	0%	0%	33%	67%	0%	100%	0%	
PM PEAK HR FACTOR		0.000			0.000			0.375			0.313		0.500
PM APP/DEPART	0	/	0	0	/	2	3	/	1	5	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, May 25, 23

LOCATION: Perris
NORTH & SOUTH: I-215 NB Ramps
EAST & WEST: Ramona

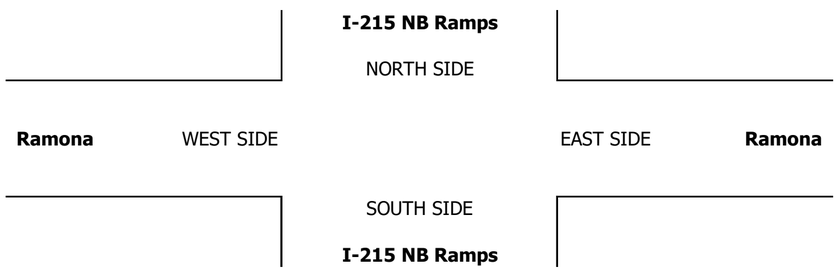
PROJECT #: SC4061
LOCATION #: 2
CONTROL: SIGNAL

NOTES:
Queue WB AM/PM

AM
PM
MD
OTHER
OTHER

N
W
E
S

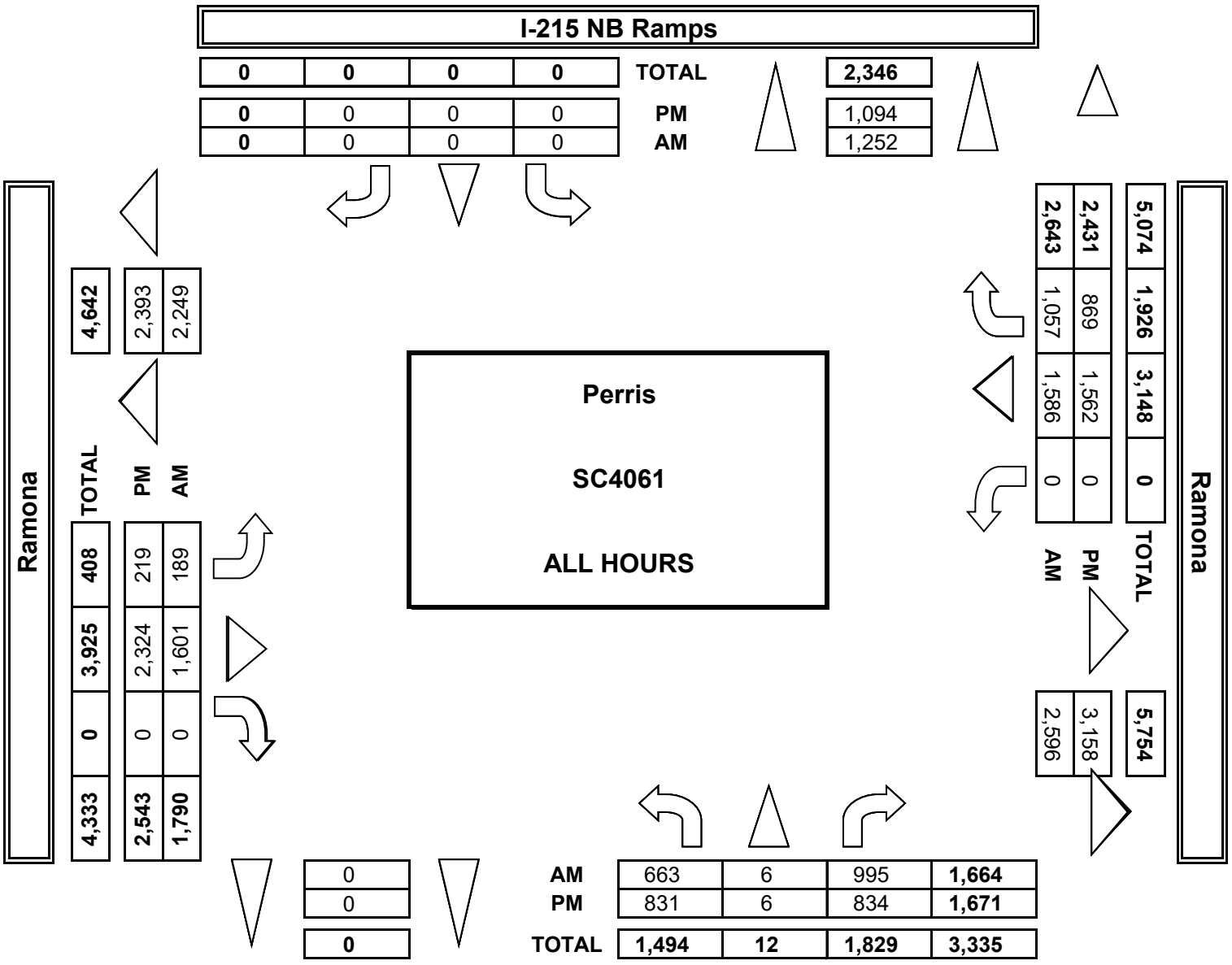
		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR X	ERR X	WRR 0
AM	7:00 AM	61	0	110	0	0	0	24	200	0	0	221	134	750	0	0	0	0	0	45	0	0	23
	7:15 AM	59	1	131	0	0	0	21	190	0	0	225	154	781	0	0	0	0	0	64	0	0	33
	7:30 AM	96	1	148	0	0	0	28	209	0	0	225	124	831	0	0	0	0	0	43	0	0	35
	7:45 AM	95	0	162	0	0	0	15	249	0	0	185	123	829	0	0	0	0	0	50	0	0	24
	8:00 AM	79	1	127	0	0	0	21	235	0	0	199	114	776	0	0	0	0	0	43	0	0	24
	8:15 AM	97	1	110	0	0	0	23	189	0	0	191	142	753	0	0	0	0	0	42	0	0	35
	8:30 AM	79	0	108	0	0	0	22	161	0	0	172	129	671	0	0	0	0	0	58	0	0	34
	8:45 AM	97	2	99	0	0	0	35	168	0	0	168	137	706	0	0	0	0	0	33	0	0	29
	VOLUMES	663	6	995	0	0	0	189	1,601	0	0	1,586	1,057	6,097	0	0	0	0	0	378	0	0	237
	APPROACH %	40%	0%	60%	0%	0%	0%	11%	89%	0%	0%	60%	40%										
	APP/DEPART	1,664	/	1,252	0	/	0	1,790	/	2,596	2,643	/	2,249	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	329	3	568	0	0	0	85	883	0	0	834	515	3,217						200	0	0	116
	APPROACH %	37%	0%	63%	0%	0%	0%	9%	91%	0%	0%	62%	38%										
	PEAK HR FACTOR		0.875			0.000			0.917			0.890		0.968									
	APP/DEPART	900	/	603	0	/	0	968	/	1,451	1,349	/	1,163	0									
PM	04:00 PM	113	0	119	0	0	0	27	254	0	0	209	96	818	0	0	0	0	0	48	0	0	27
	4:15 PM	100	0	101	0	0	0	28	264	0	0	199	116	808	0	0	0	0	0	28	0	0	24
	4:30 PM	100	1	129	0	0	0	24	288	0	0	209	114	865	0	0	0	0	0	37	0	0	41
	4:45 PM	114	1	102	0	0	0	28	291	0	0	207	110	853	0	0	0	0	0	30	0	0	26
	5:00 PM	103	1	85	0	0	0	19	317	0	0	181	95	801	0	0	0	0	0	38	0	0	33
	5:15 PM	107	1	99	0	0	0	34	279	0	0	195	116	831	0	0	0	0	0	40	0	0	30
	5:30 PM	106	0	103	0	0	0	28	323	0	0	193	109	862	0	0	0	0	0	32	0	0	29
	5:45 PM	88	2	96	0	0	0	31	308	0	0	169	113	807	0	0	0	0	0	24	0	0	27
	VOLUMES	831	6	834	0	0	0	219	2,324	0	0	1,562	869	6,645	0	0	0	0	0	277	0	0	237
	APPROACH %	50%	0%	50%	0%	0%	0%	9%	91%	0%	0%	64%	36%										
	APP/DEPART	1,671	/	1,094	0	/	0	2,543	/	3,158	2,431	/	2,393	0									
	BEGIN PEAK HR		4:30 PM																				
	VOLUMES	424	4	415	0	0	0	105	1,175	0	0	792	435	3,350						145	0	0	130
	APPROACH %	50%	0%	49%	0%	0%	0%	8%	92%	0%	0%	65%	35%										
	PEAK HR FACTOR		0.916			0.000			0.952			0.950		0.968									
	APP/DEPART	843	/	544	0	/	0	1,280	/	1,590	1,227	/	1,216	0									

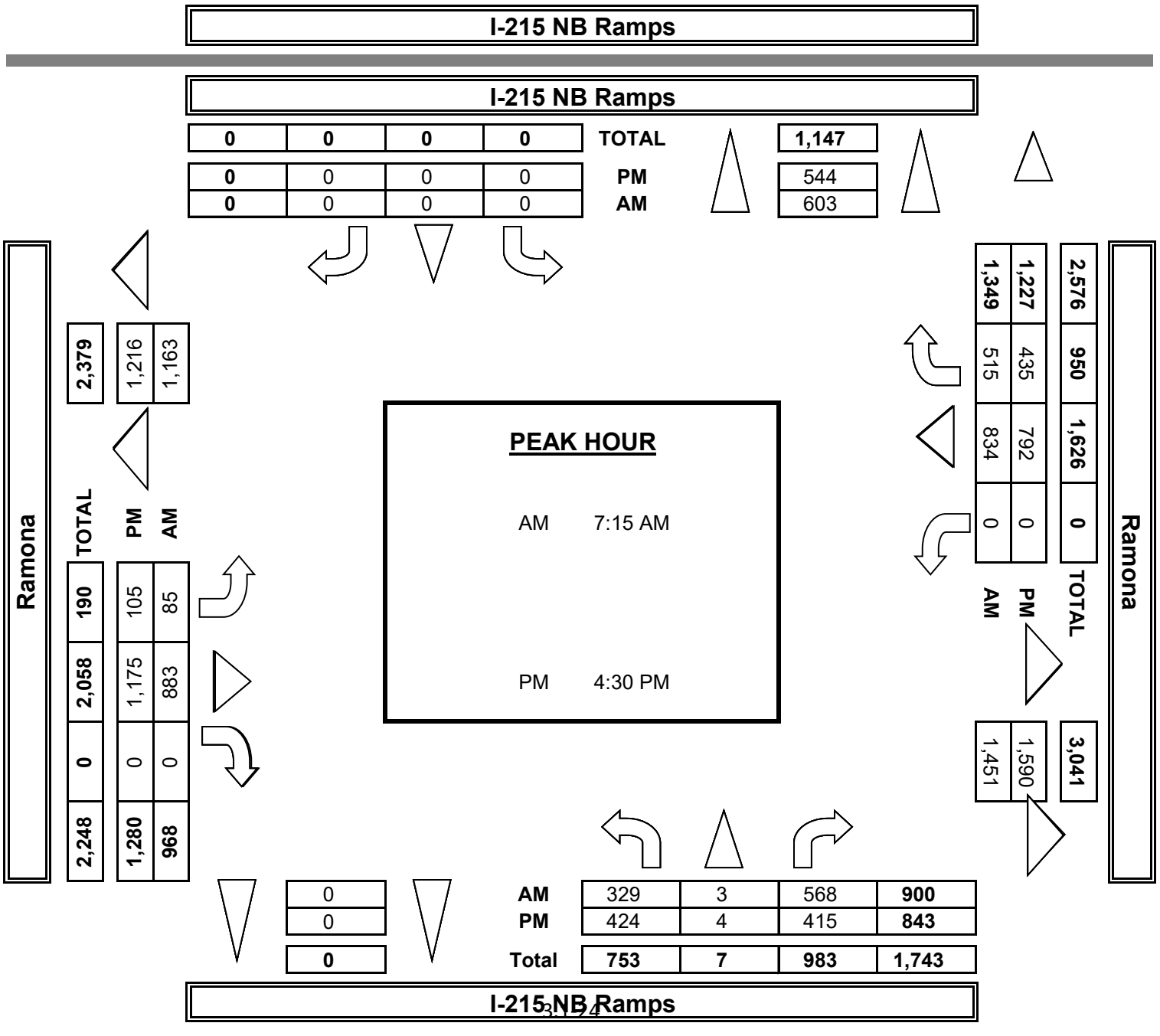


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	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
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	TOTAL	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	I-215 NB Ramps
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND I-215 NB Ramps			SOUTHBOUNI I-215 NB Ramps	
		NL	NT	NR	SL	ST
	LANES:	1.5	0.5	1	X	X
AM	7:00 AM	64	0	121	0	0
	7:15 AM	71	1	142	0	0
	7:30 AM	107	3	168	0	0
	7:45 AM	113	0	178	0	0
	8:00 AM	95	1	136	0	0
	8:15 AM	120	1	115	0	0
	8:30 AM	96	0	131	0	0
	8:45 AM	116	2	119	0	0
	VOLUMES	779	8	1,108	0	0
	APPROACH %	41%	0%	58%	0%	0%
	APP/DEPART	1,895	/	1,533	0	/
	BEGIN PEAK HR		7:15 AM			
	VOLUMES	385	5	624	0	0
	APPROACH %	38%	0%	62%	0%	0%
	PEAK HR FACTOR		0.872			0.000
	APP/DEPART	1,014	/	749	0	/
PM	04:00 PM	124	0	134	0	0
	4:15 PM	110	0	110	0	0
	4:30 PM	106	1	135	0	0
	4:45 PM	124	1	115	0	0
	5:00 PM	114	1	89	0	0
	5:15 PM	116	1	103	0	0
	5:30 PM	121	0	107	0	0
	5:45 PM	97	3	100	0	0
	VOLUMES	911	7	891	0	0
	APPROACH %	50%	0%	49%	0%	0%

	APP/DEPART	1,809	/	1,284	0	/
	BEGIN PEAK HR		4:30 PM			
	VOLUMES	459	4	441	0	0
	APPROACH %	51%	0%	49%	0%	0%
	PEAK HR FACTOR		0.938			0.000
	APP/DEPART	904	/	639	0	/

I-2

Ramona WEST SIDE

I-2

RNING MOVEMENT COUNTS

LC. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 2
CONTROL: SIGNAL

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND			WESTBOUND			
s		Ramona			Ramona		
SR	EL	ET	ER	WL	WT	WR	TOTAL
X	1	2	X	X	2	1	
0	43	238	0	0	238	167	869
0	33	219	0	0	240	187	891
0	45	245	0	0	242	147	956
0	25	280	0	0	214	146	954
0	27	275	0	0	208	135	877
0	31	226	0	0	210	160	861
0	36	189	0	0	190	149	789
0	42	230	0	0	186	156	850
0	280	1,900	0	0	1,726	1,246	7,046
0%	13%	87%	0%	0%	58%	42%	
0	2,180	/	3,008	2,972	/	2,505	0
0	130	1,019	0	0	903	614	3,678
0%	11%	89%	0%	0%	60%	40%	
		0.943			0.890		0.962
0	1,148	/	1,642	1,517	/	1,288	0
0	35	279	0	0	235	112	919
0	47	298	0	0	218	128	909
0	32	315	0	0	228	126	940
0	38	325	0	0	221	124	947
0	28	341	0	0	194	115	881
0	38	310	0	0	212	136	914
0	33	355	0	0	198	125	938
0	41	338	0	0	178	123	879
0	291	2,559	0	0	1,682	987	7,326
0%	10%	90%	0%	0%	63%	37%	

0	2,849	/	3,450	2,669	/	2,593	0
0 0%	135 9%	1,290 91% 0.965	0 0%	0 0%	854 63% 0.959	500 37%	3,682 0.972
0	1,425	/	1,731	1,354	/	1,313	0

215 NB Ramps

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

215 NB Ramps

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

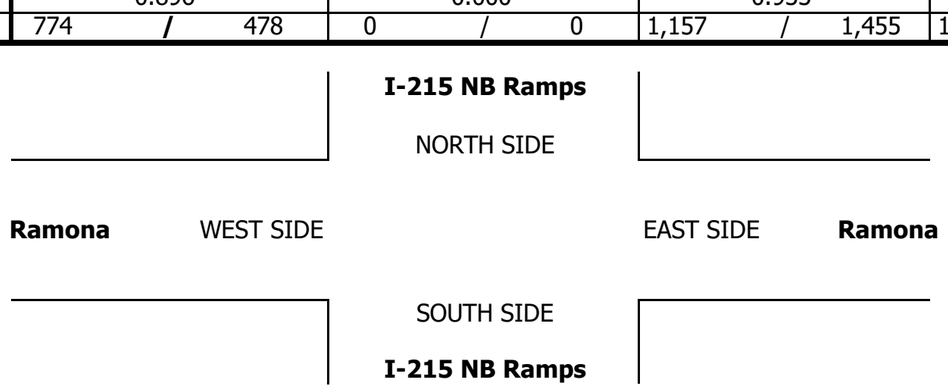
		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	57	0	97	0	0	0	11	162	0	0	196	103	626
	7:15 AM	48	1	119	0	0	0	14	169	0	0	210	125	686
	7:30 AM	86	0	131	0	0	0	17	178	0	0	207	106	725
	7:45 AM	79	0	147	0	0	0	8	225	0	0	154	108	721
	8:00 AM	65	1	114	0	0	0	18	200	0	0	181	97	676
	8:15 AM	78	1	103	0	0	0	17	162	0	0	170	124	655
	8:30 AM	65	0	85	0	0	0	13	133	0	0	153	110	559
	8:45 AM	83	2	82	0	0	0	31	120	0	0	148	118	584
	VOLUMES	561	5	878	0	0	0	129	1,349	0	0	1,419	891	5,232
	APPROACH %	39%	0%	61%	0%	0%	0%	9%	91%	0%	0%	61%	39%	
	APP/DEPART	1,444	/	1,025	0	/	0	1,478	/	2,227	2,310	/	1,980	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	278	2	511	0	0	0	57	772	0	0	752	436	2,808
	APPROACH %	35%	0%	65%	0%	0%	0%	7%	93%	0%	0%	63%	37%	
	PEAK HR FACTOR		0.875			0.000			0.889			0.887		0.968
	APP/DEPART	791	/	495	0	/	0	829	/	1,283	1,188	/	1,030	0
PM	04:00 PM	103	0	103	0	0	0	21	234	0	0	184	83	728
	4:15 PM	92	0	91	0	0	0	16	238	0	0	180	105	722
	4:30 PM	94	1	121	0	0	0	19	266	0	0	193	104	798
	4:45 PM	104	1	93	0	0	0	22	253	0	0	195	100	768
	5:00 PM	90	1	78	0	0	0	14	296	0	0	169	80	728
	5:15 PM	98	1	92	0	0	0	31	256	0	0	177	104	759
	5:30 PM	95	0	99	0	0	0	25	296	0	0	187	99	801
	5:45 PM	80	1	91	0	0	0	26	283	0	0	162	105	748
	VOLUMES	756	5	768	0	0	0	174	2,122	0	0	1,447	780	6,052
	APPROACH %	49%	0%	50%	0%	0%	0%	8%	92%	0%	0%	65%	35%	
	APP/DEPART	1,529	/	959	0	/	0	2,296	/	2,890	2,227	/	2,203	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	386	4	384	0	0	0	86	1,071	0	0	734	388	3,053
	APPROACH %	50%	1%	50%	0%	0%	0%	7%	93%	0%	0%	65%	35%	
	PEAK HR FACTOR		0.896			0.000			0.933			0.944		0.956
	APP/DEPART	774	/	478	0	/	0	1,157	/	1,455	1,122	/	1,120	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR X	WRR 0
40	0	0	15
58	0	0	26
40	0	0	29
47	0	0	17
40	0	0	21
37	0	0	31
48	0	0	29
27	0	0	28
337	0	0	196
185	0	0	93
44	0	0	23
23	0	0	23
35	0	0	36
28	0	0	24
35	0	0	32
35	0	0	28
32	0	0	28
23	0	0	27
255	0	0	221
133	0	0	120



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

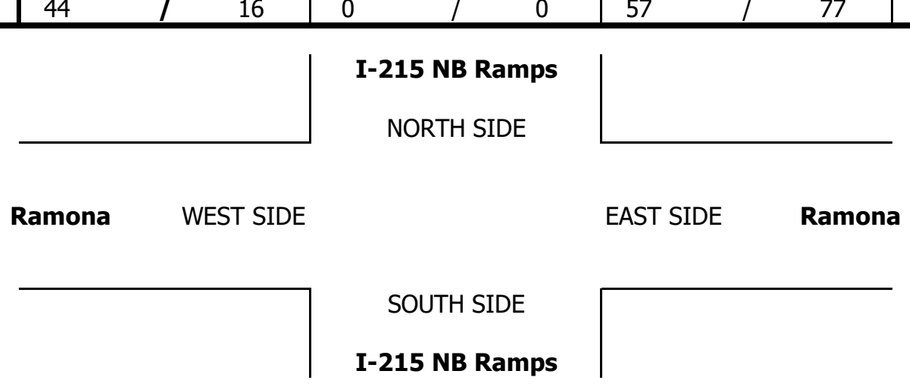
	NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
7:00 AM	3	0	9	0	0	0	5	19	0	0	22	16	74
7:15 AM	5	0	8	0	0	0	0	5	0	0	9	15	42
7:30 AM	6	0	7	0	0	0	2	14	0	0	11	8	48
7:45 AM	9	0	8	0	0	0	3	10	0	0	19	5	54
8:00 AM	6	0	10	0	0	0	0	18	0	0	18	6	58
8:15 AM	9	0	5	0	0	0	1	6	0	0	14	11	46
8:30 AM	7	0	15	0	0	0	3	19	0	0	13	10	67
8:45 AM	5	0	8	0	0	0	1	21	0	0	12	10	57
VOLUMES	50	0	70	0	0	0	15	112	0	0	118	81	446
APPROACH %	42%	0%	58%	0%	0%	0%	12%	88%	0%	0%	59%	41%	
APP/DEPART	120	/	96	0	/	0	127	/	182	199	/	168	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	26	0	33	0	0	0	5	47	0	0	57	34	202
APPROACH %	44%	0%	56%	0%	0%	0%	10%	90%	0%	0%	63%	37%	
PEAK HR FACTOR		0.868			0.000			0.722			0.948		0.871
APP/DEPART	59	/	39	0	/	0	52	/	80	91	/	83	0
04:00 PM	6	0	11	0	0	0	2	10	0	0	14	6	49
4:15 PM	4	0	7	0	0	0	2	11	0	0	11	7	42
4:30 PM	3	0	7	0	0	0	1	9	0	0	7	5	32
4:45 PM	6	0	2	0	0	0	1	25	0	0	6	2	42
5:00 PM	8	0	6	0	0	0	0	12	0	0	5	5	36
5:15 PM	5	0	7	0	0	0	0	9	0	0	11	2	34
5:30 PM	4	0	2	0	0	0	1	13	0	0	4	2	26
5:45 PM	4	1	4	0	0	0	0	10	0	0	3	3	25
VOLUMES	40	1	46	0	0	0	7	99	0	0	61	32	286
APPROACH %	46%	1%	53%	0%	0%	0%	7%	93%	0%	0%	66%	34%	
APP/DEPART	87	/	40	0	/	0	106	/	145	93	/	101	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	22	0	22	0	0	0	2	55	0	0	29	14	144
APPROACH %	50%	0%	50%	0%	0%	0%	4%	96%	0%	0%	67%	33%	
PEAK HR FACTOR		0.786			0.000			0.548			0.827		0.857
APP/DEPART	44	/	16	0	/	0	57	/	77	43	/	51	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR X	WRR 0
3	0	0	6
4	0	0	5
2	0	0	3
2	0	0	3
3	0	0	1
4	0	0	3
7	0	0	2
2	0	0	1
27	0	0	24
11	0	0	12
4	0	0	3
3	0	0	1
2	0	0	2
1	0	0	1
3	0	0	0
5	0	0	0
0	0	0	1
1	0	0	0
19	0	0	8
11	0	0	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 3:	NOTES:
3-AXLE TRUCKS	

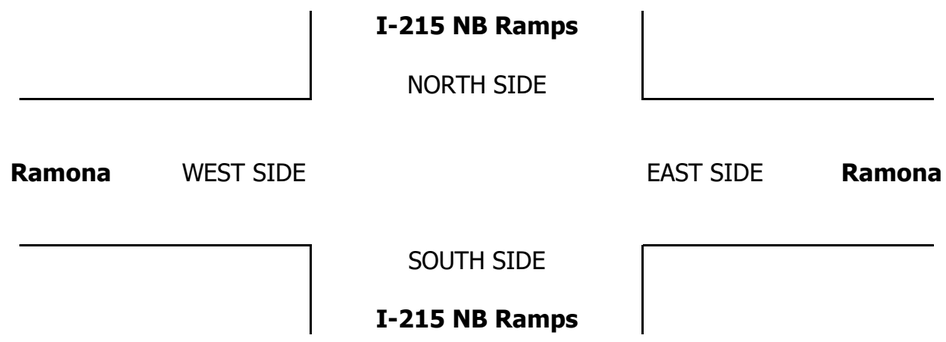
AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	1	0	2	0	0	0	0	8	0	0	0	4	15
	7:15 AM	3	0	1	0	0	0	2	6	0	0	1	3	16
	7:30 AM	0	0	4	0	0	0	2	3	0	0	3	1	13
	7:45 AM	0	0	2	0	0	0	0	1	0	0	3	0	6
	8:00 AM	2	0	2	0	0	0	0	2	0	0	0	3	9
	8:15 AM	2	0	1	0	0	0	2	6	0	0	2	2	15
	8:30 AM	1	0	1	0	0	0	0	0	0	0	1	3	6
	8:45 AM	0	0	1	0	0	0	0	3	0	0	4	4	12
	VOLUMES	9	0	14	0	0	0	6	29	0	0	14	20	92
	APPROACH %	39%	0%	61%	0%	0%	0%	17%	83%	0%	0%	41%	59%	
	APP/DEPART	23	/	26	0	/	0	35	/	43	34	/	23	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	5	0	9	0	0	0	4	12	0	0	7	7	44
	APPROACH %	36%	0%	64%	0%	0%	0%	25%	75%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.875			0.000			0.500			0.875		0.688
	APP/DEPART	14	/	11	0	/	0	16	/	21	14	/	12	0
PM	04:00 PM	0	0	1	0	0	0	1	0	0	0	2	0	4
	4:15 PM	0	0	1	0	0	0	2	1	0	0	2	0	6
	4:30 PM	2	0	0	0	0	0	1	4	0	0	3	1	11
	4:45 PM	1	0	0	0	0	0	1	5	0	0	1	3	11
	5:00 PM	0	0	1	0	0	0	1	0	0	0	3	3	8
	5:15 PM	1	0	0	0	0	0	2	2	0	0	3	1	9
	5:30 PM	1	0	1	0	0	0	0	2	0	0	1	1	6
	5:45 PM	1	0	0	0	0	0	0	5	0	0	1	2	9
	VOLUMES	6	0	4	0	0	0	8	19	0	0	16	11	64
	APPROACH %	60%	0%	40%	0%	0%	0%	30%	70%	0%	0%	59%	41%	
	APP/DEPART	10	/	19	0	/	0	27	/	23	27	/	22	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	4	0	1	0	0	0	5	11	0	0	10	8	39
	APPROACH %	80%	0%	20%	0%	0%	0%	31%	69%	0%	0%	56%	44%	
	PEAK HR FACTOR		0.625			0.000			0.667			0.750		0.886
	APP/DEPART	5	/	13	0	/	0	16	/	12	18	/	14	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR			
NRR	SRR	ERR	WRR
0	X	X	0
1	0	0	1
1	0	0	1
0	0	0	1
1	0	0	0
0	0	0	0
0	0	0	0
1	0	0	2
1	0	0	0
5	0	0	5
2	0	0	2
0	0	0	0
1	0	0	0
0	0	0	1
0	0	0	1
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	3
0	0	0	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

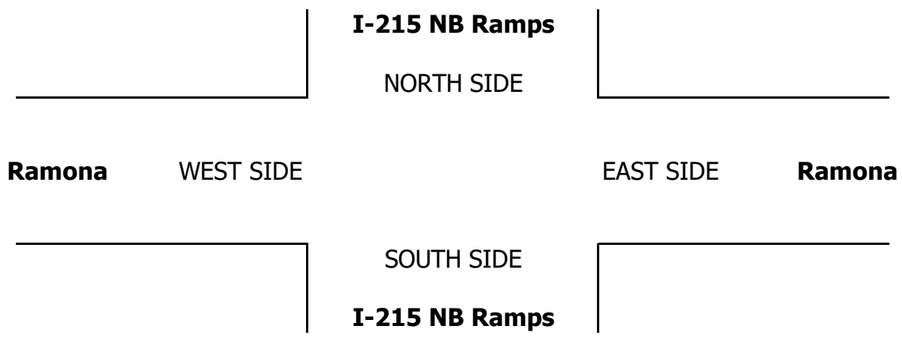
	NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
7:00 AM	0	0	2	0	0	0	8	9	0	0	3	10	32
7:15 AM	3	0	3	0	0	0	5	10	0	0	4	11	36
7:30 AM	4	1	6	0	0	0	7	12	0	0	4	9	43
7:45 AM	6	0	5	0	0	0	4	12	0	0	7	10	44
8:00 AM	5	0	1	0	0	0	3	14	0	0	0	7	30
8:15 AM	8	0	0	0	0	0	2	13	0	0	5	5	33
8:30 AM	6	0	7	0	0	0	6	9	0	0	5	6	39
8:45 AM	7	0	7	0	0	0	3	24	0	0	4	5	50
AM VOLUMES	39	1	31	0	0	0	38	103	0	0	32	63	307
AM APPROACH %	55%	1%	44%	0%	0%	0%	27%	73%	0%	0%	34%	66%	
AM APP/DEPART	71	/	102	0	/	0	141	/	134	95	/	71	0
AM BEGIN PEAK HR	7:15 AM												
AM VOLUMES	18	1	15	0	0	0	19	48	0	0	15	37	153
AM APPROACH %	53%	3%	44%	0%	0%	0%	28%	72%	0%	0%	29%	71%	
AM PEAK HR FACTOR		0.773			0.000			0.882			0.765		0.869
AM APP/DEPART	34	/	57	0	/	0	67	/	63	52	/	33	0
04:00 PM	4	0	4	0	0	0	3	10	0	0	8	6	35
4:15 PM	4	0	2	0	0	0	8	13	0	0	5	4	36
4:30 PM	1	0	1	0	0	0	3	9	0	0	6	4	24
4:45 PM	3	0	5	0	0	0	4	8	0	0	5	5	30
5:00 PM	2	0	0	0	0	0	4	9	0	0	3	7	25
5:15 PM	2	0	0	0	0	0	1	12	0	0	4	9	28
5:30 PM	6	0	1	0	0	0	2	11	0	0	1	7	28
5:45 PM	3	0	1	0	0	0	5	10	0	0	3	3	25
PM VOLUMES	25	0	14	0	0	0	30	82	0	0	35	45	231
PM APPROACH %	64%	0%	36%	0%	0%	0%	27%	73%	0%	0%	44%	56%	
PM APP/DEPART	39	/	75	0	/	0	112	/	96	80	/	60	0
PM BEGIN PEAK HR	4:30 PM												
PM VOLUMES	8	0	6	0	0	0	12	38	0	0	18	25	107
PM APPROACH %	57%	0%	43%	0%	0%	0%	24%	76%	0%	0%	42%	58%	
PM PEAK HR FACTOR		0.438			0.000			0.962			0.827		0.892
PM APP/DEPART	14	/	37	0	/	0	50	/	44	43	/	26	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR X	WRR 0
1	0	0	1
1	0	0	1
1	0	0	2
0	0	0	4
0	0	0	2
0	0	0	1
2	0	0	1
2	0	0	0
7	0	0	12
2	0	0	9
0	0	0	1
1	0	0	0
0	0	0	2
1	0	0	0
0	0	0	0
0	0	0	2
0	0	0	0
0	0	0	0
2	0	0	5
1	0	0	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

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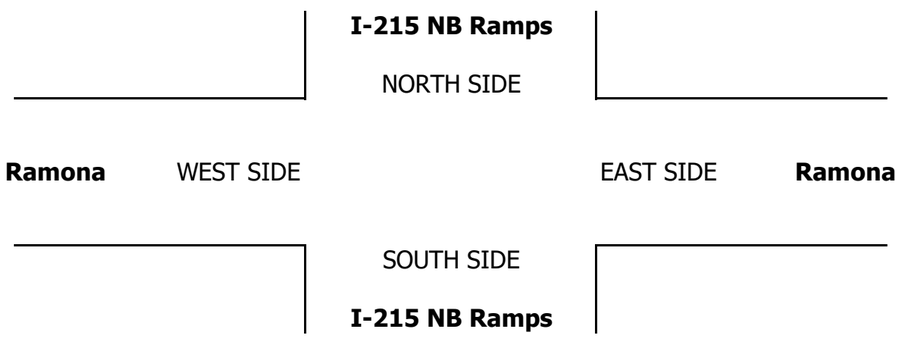
		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR X	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/25/23	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
THURSDAY	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:45 AM	1	0	0	0	0	0	0	1	0	0	2	0	4
	8:00 AM	1	0	0	0	0	0	0	1	0	0	0	1	3
	8:15 AM	0	0	1	0	0	0	1	2	0	0	0	0	4
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	2	0	1	0	0	0	0	0	0	0	0	0	3
	VOLUMES	4	0	2	0	0	0	1	7	0	0	3	2	19
	APPROACH %	67%	0%	33%	0%	0%	0%	13%	88%	0%	0%	60%	40%	
	APP/DEPART	6	/	3	0	/	0	8	/	9	5	/	7	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	0	0	0	0	0	0	4	0	0	3	1	10
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	75%	25%	
	PEAK HR FACTOR		0.500			0.000			0.500			0.500		0.625
	APP/DEPART	2	/	1	0	/	0	4	/	4	4	/	5	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	5:00 PM	3	0	0	0	0	0	0	0	0	0	1	0	4
	5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	4	0	1	0	0	0	0	2	0	0	3	1	11
	APPROACH %	80%	0%	20%	0%	0%	0%	0%	100%	0%	0%	75%	25%	
	APP/DEPART	5	/	1	0	/	0	2	/	3	4	/	7	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	4	0	1	0	0	0	0	0	0	0	1	0	6
	APPROACH %	80%	0%	20%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.417			0.000			0.000			0.250		0.375
	APP/DEPART	5	/	0	0	/	0	0	/	1	1	/	5	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR			
NRR 0	SRR X	ERR X	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
1	0	0	0
2	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

I-215 NB Ramps

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

I-215 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, May 25, 23

LOCATION: Perris
NORTH & SOUTH: Nevada
EAST & WEST: Ramona

PROJECT #: SC4061
LOCATION #: 3
CONTROL: STOP N

NOTES:
Queue WB AM

AM
PM
MD
OTHER
OTHER

N
W
E
S

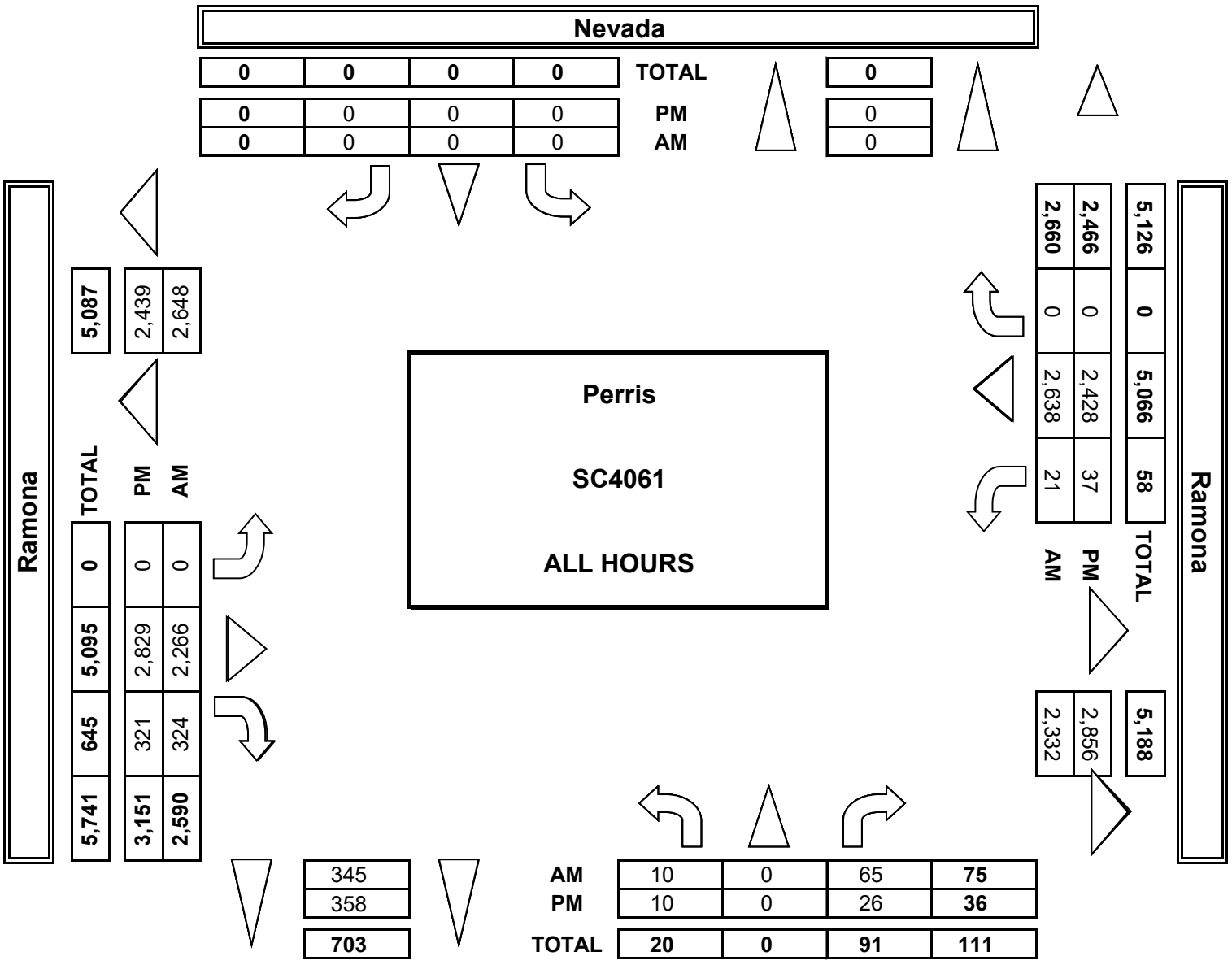
		NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR X	SRR X	ERR X	WRR X
AM	7:00 AM	0	0	11	0	0	0	0	285	25	0	355	0	676	0	0	0	1	1	0	0	0	0
	7:15 AM	2	0	23	0	0	0	0	292	29	3	377	0	726	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	5	0	0	0	0	317	38	4	349	0	713	0	0	0	0	0	0	0	0	0
	7:45 AM	2	0	5	0	0	0	0	345	66	3	308	0	729	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	5	0	0	0	0	316	46	4	312	0	684	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	4	0	0	0	0	256	40	3	332	0	636	0	0	0	0	0	0	0	0	0
	8:30 AM	1	0	8	0	0	0	0	233	36	1	303	0	582	0	0	0	0	0	0	0	0	0
	8:45 AM	3	0	4	0	0	0	0	222	44	3	302	0	578	0	0	0	0	0	0	0	0	0
	VOLUMES	10	0	65	0	0	0	0	2,266	324	21	2,638	0	5,325	0	0	0	1	1	0	0	0	0
	APPROACH %	13%	0%	87%	0%	0%	0%	0%	87%	13%	1%	99%	0%										
	APP/DEPART	75	/	0	0	/	345	2,590	/	2,332	2,660	/	2,648	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	5	0	38	0	0	0	0	1,270	179	14	1,346	0	2,852						0	0	0	0
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	88%	12%	1%	99%	0%										
	PEAK HR FACTOR		0.430			0.000			0.881			0.895		0.978									
	APP/DEPART	43	/	0	0	/	193	1,449	/	1,308	1,360	/	1,351	0									
PM	04:00 PM	0	0	7	0	0	0	0	346	24	7	308	0	692	0	0	0	0	0	0	0	0	0
	4:15 PM	2	0	2	0	0	0	0	325	40	4	313	0	686	0	0	0	0	0	0	0	0	0
	4:30 PM	1	0	2	0	0	0	0	382	35	7	325	0	752	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	2	0	0	0	0	357	36	5	317	0	717	0	0	0	1	1	0	0	0	0
	5:00 PM	4	0	6	0	0	0	0	362	37	5	271	0	685	0	0	1	0	1	0	0	0	0
	5:15 PM	0	0	2	0	0	0	0	337	41	4	311	0	695	0	0	0	0	0	0	0	0	0
	5:30 PM	2	0	5	0	0	0	0	371	55	0	302	0	735	0	0	0	0	0	0	0	0	0
	5:45 PM	1	0	0	0	0	0	0	349	53	5	281	0	689	0	0	0	0	0	0	0	0	0
	VOLUMES	10	0	26	0	0	0	0	2,829	321	37	2,428	0	5,653	0	0	1	1	2	0	0	0	0
	APPROACH %	28%	0%	72%	0%	0%	0%	0%	90%	10%	2%	98%	0%										
	APP/DEPART	36	/	0	0	/	358	3,151	/	2,856	2,466	/	2,439	0									
	BEGIN PEAK HR		4:30 PM																				
	VOLUMES	5	0	12	0	0	0	0	1,438	149	21	1,224	0	2,851						0	0	0	0
	APPROACH %	29%	0%	71%	0%	0%	0%	0%	91%	9%	2%	98%	0%										
	PEAK HR FACTOR		0.425			0.000			0.952			0.938		0.948									
	APP/DEPART	17	/	0	0	/	170	1,588	/	1,451	1,246	/	1,230	0									

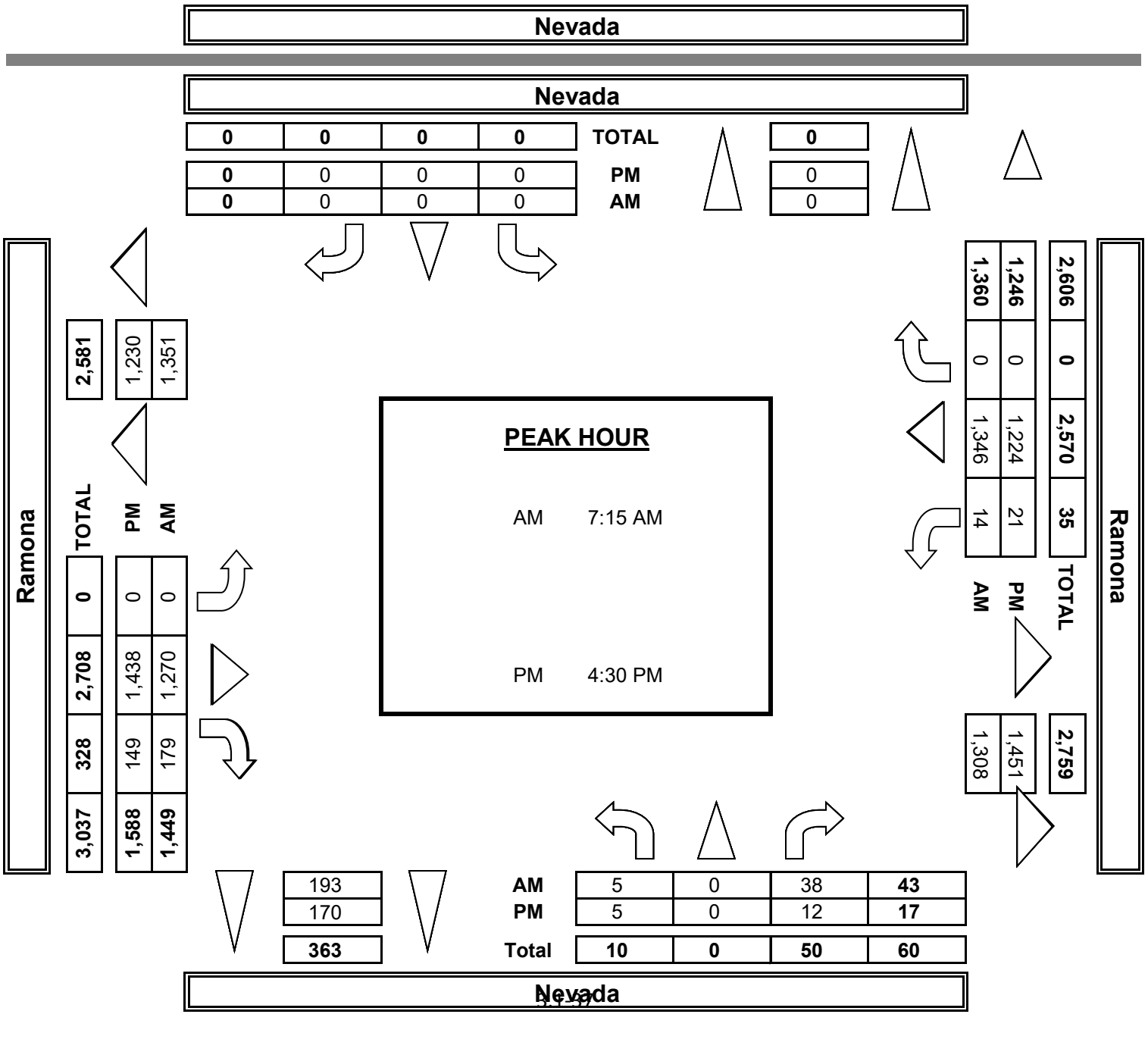


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	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
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	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

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	Nevada
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Nevada			SOUTHBOUNI Nevada	
		NL	NT	NR	SL	ST
	LANES:	0	X	0	X	X
AM	7:00 AM	0	0	13	0	0
	7:15 AM	2	0	24	0	0
	7:30 AM	0	0	5	0	0
	7:45 AM	2	0	5	0	0
	8:00 AM	1	0	5	0	0
	8:15 AM	1	0	4	0	0
	8:30 AM	1	0	8	0	0
	8:45 AM	4	0	4	0	0
	VOLUMES	11	0	67	0	0
	APPROACH %	14%	0%	86%	0%	0%
	APP/DEPART	78	/	0	0	/
	BEGIN PEAK HR		7:15 AM			
	VOLUMES	5	0	39	0	0
	APPROACH %	11%	0%	89%	0%	0%
	PEAK HR FACTOR		0.426			0.000
	APP/DEPART	44	/	0	0	/
PM	04:00 PM	0	0	7	0	0
	4:15 PM	3	0	2	0	0
	4:30 PM	1	0	2	0	0
	4:45 PM	0	0	2	0	0
	5:00 PM	8	0	6	0	0
	5:15 PM	0	0	3	0	0
	5:30 PM	2	0	5	0	0
	5:45 PM	1	0	0	0	0
	VOLUMES	15	0	27	0	0
	APPROACH %	35%	0%	65%	0%	0%

APP/DEPART	41	/	0	0	/
BEGIN PEAK HR		4:30 PM			
VOLUMES	9	0	13	0	0
APPROACH %	42%	0%	58%	0%	0%
PEAK HR FACTOR		0.384			0.000
APP/DEPART	22	/	0	0	/

Ramona WEST SIDE

RNING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 3
CONTROL: STOP N

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ramona			WESTBOUND Ramona			
SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
0	0	326	33	0	405	0	776
0	0	331	30	3	424	0	813
0	0	372	39	5	389	0	809
0	0	381	78	3	359	0	827
0	0	352	60	5	342	0	764
0	0	292	46	3	369	0	714
0	0	280	40	1	341	0	670
0	0	286	62	5	338	0	699
0 0%	0 0%	2,618 87%	385 13%	25 1%	2,966 99%	0 0%	6,070
409	3,002	/	2,685	2,990	/	2,977	0
0 0%	0 0%	1,435 88% 0.895	205 13%	16 1%	1,514 99% 0.895	0 0%	3,213 0.971
221	1,640	/	1,474	1,529	/	1,519	0
0	0	386	24	7	350	0	774
0	0	364	44	4	343	0	758
0	0	412	37	8	355	0	815
0	0	400	40	5	345	0	792
0	0	390	37	5	299	0	745
0	0	368	45	4	348	0	766
0	0	405	57	0	323	0	792
0	0	381	56	6	299	0	742
0 0%	0 0%	3,104 90%	338 10%	38 1%	2,661 99%	0 0%	6,182

376	3,442	/	3,130	2,699	/	2,676	0
0 0%	0 0%	1,570 91% 0.962	158 9%	22 2%	1,347 98% 0.943	0 0%	3,117 0.957
180	1,728	/	1,582	1,368	/	1,356	0

Nevada

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

Nevada

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Nevada	LOCATION #:	3
	EAST & WEST:	Ramona	CONTROL:	STOP N

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N

◄ W E ►

S ▼

		NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
AM	7:00 AM	0	0	9	0	0	0	0	241	18	0	299	0	567	0	0	0	1	1	0	0	0	0
	7:15 AM	2	0	22	0	0	0	0	260	28	3	333	0	648	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	5	0	0	0	0	270	37	3	313	0	628	0	0	0	0	0	0	0	0	0
	7:45 AM	2	0	5	0	0	0	0	316	56	3	262	0	644	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	5	0	0	0	0	280	34	3	277	0	600	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	4	0	0	0	0	227	35	3	293	0	563	0	0	0	0	0	0	0	0	0
	8:30 AM	1	0	8	0	0	0	0	186	32	1	265	0	493	0	0	0	0	0	0	0	0	0
	8:45 AM	1	0	4	0	0	0	0	170	31	2	265	0	473	0	0	0	0	0	0	0	0	0
	VOLUMES	8	0	62	0	0	0	0	1,950	271	18	2,307	0	4,617	0	0	0	1	1	0	0	0	0
	APPROACH %	11%	0%	89%	0%	0%	0%	0%	88%	12%	1%	99%	0%										
	APP/DEPART	70	/	0	0	/	289	2,221	/	2,013	2,326	/	2,315	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	5	0	37	0	0	0	0	1,126	155	12	1,185	0	2,520						0	0	0	0
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	88%	12%	1%	99%	0%										
	PEAK HR FACTOR		0.438			0.000			0.861			0.891		0.972									
	APP/DEPART	42	/	0	0	/	167	1,281	/	1,163	1,197	/	1,190	0									
PM	04:00 PM	0	0	7	0	0	0	0	310	24	7	270	0	618	0	0	0	0	0	0	0	0	0
	4:15 PM	1	0	2	0	0	0	0	292	37	4	284	0	620	0	0	0	0	0	0	0	0	0
	4:30 PM	1	0	2	0	0	0	0	356	31	6	299	0	695	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	2	0	0	0	0	313	33	5	295	0	648	0	0	0	1	1	0	0	0	0
	5:00 PM	1	0	6	0	0	0	0	334	37	5	247	0	630	0	0	1	0	1	0	0	0	0
	5:15 PM	0	0	1	0	0	0	0	311	37	4	281	0	634	0	0	0	0	0	0	0	0	0
	5:30 PM	2	0	5	0	0	0	0	342	53	0	286	0	688	0	0	0	0	0	0	0	0	0
	5:45 PM	1	0	0	0	0	0	0	323	49	4	266	0	643	0	0	0	0	0	0	0	0	0
	VOLUMES	6	0	25	0	0	0	0	2,581	301	35	2,228	0	5,178	0	0	1	1	2	0	0	0	0
	APPROACH %	19%	0%	81%	0%	0%	0%	0%	90%	10%	2%	98%	0%										
	APP/DEPART	31	/	0	0	/	336	2,883	/	2,607	2,264	/	2,235	0									
	BEGIN PEAK HR		4:30 PM																				
	VOLUMES	2	0	11	0	0	0	0	1,314	138	20	1,122	0	2,609						0	0	0	0
	APPROACH %	15%	0%	85%	0%	0%	0%	0%	90%	9%	2%	98%	0%										
	PEAK HR FACTOR		0.464			0.000			0.939			0.937		0.938									
	APP/DEPART	13	/	0	0	/	158	1,453	/	1,326	1,143	/	1,125	0									

Nevada

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

Nevada

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Nevada	LOCATION #:	3
	EAST & WEST:	Ramona	CONTROL:	STOP N

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM		▲ N	
PM			
MD	◄ W		E ►
OTHER		S ▼	
OTHER			

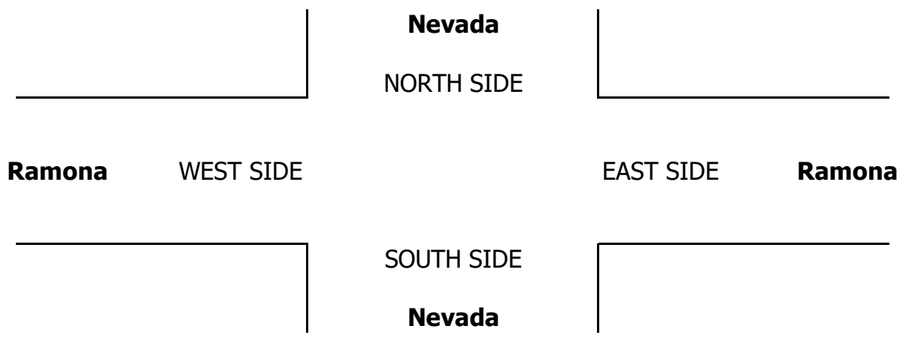
	NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM 7:00 AM	0	0	1	0	0	0	0	25	3	0	38	0	67
7:15 AM	0	0	1	0	0	0	0	12	1	0	24	0	38
7:30 AM	0	0	0	0	0	0	0	20	1	1	19	0	41
7:45 AM	0	0	0	0	0	0	0	13	5	0	24	0	42
8:00 AM	0	0	0	0	0	0	0	21	7	0	24	0	52
8:15 AM	0	0	0	0	0	0	0	8	3	0	25	0	36
8:30 AM	0	0	0	0	0	0	0	31	3	0	23	0	57
8:45 AM	2	0	0	0	0	0	0	25	4	0	20	0	51
VOLUMES	2	0	2	0	0	0	0	155	27	1	197	0	384
APPROACH %	50%	0%	50%	0%	0%	0%	0%	85%	15%	1%	99%	0%	
APP/DEPART	4	/	0	0	/	28	182	/	157	198	/	199	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	1	0	0	0	0	66	14	1	91	0	173
APPROACH %	0%	0%	100%	0%	0%	0%	0%	83%	18%	1%	99%	0%	
PEAK HR FACTOR		0.250			0.000			0.714			0.958		0.832
APP/DEPART	1	/	0	0	/	15	80	/	67	92	/	91	0
PM 04:00 PM	0	0	0	0	0	0	0	21	0	0	20	0	41
4:15 PM	1	0	0	0	0	0	0	17	1	0	17	0	36
4:30 PM	0	0	0	0	0	0	0	12	4	1	12	0	29
4:45 PM	0	0	0	0	0	0	0	26	1	0	8	0	35
5:00 PM	0	0	0	0	0	0	0	18	0	0	10	0	28
5:15 PM	0	0	1	0	0	0	0	13	3	0	13	0	30
5:30 PM	0	0	0	0	0	0	0	15	0	0	6	0	21
5:45 PM	0	0	0	0	0	0	0	11	3	1	6	0	21
VOLUMES	1	0	1	0	0	0	0	133	12	2	92	0	241
APPROACH %	50%	0%	50%	0%	0%	0%	0%	92%	8%	2%	98%	0%	
APP/DEPART	2	/	0	0	/	14	145	/	134	94	/	93	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	0	1	0	0	0	0	69	8	1	43	0	122
APPROACH %	0%	0%	100%	0%	0%	0%	0%	90%	10%	2%	98%	0%	
PEAK HR FACTOR		0.250			0.000			0.713			0.846		0.871
APP/DEPART	1	/	0	0	/	9	77	/	70	44	/	43	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Nevada	LOCATION #:	3
	EAST & WEST:	Ramona	CONTROL:	STOP N

CLASS 3:	NOTES:
3-AXLE TRUCKS	

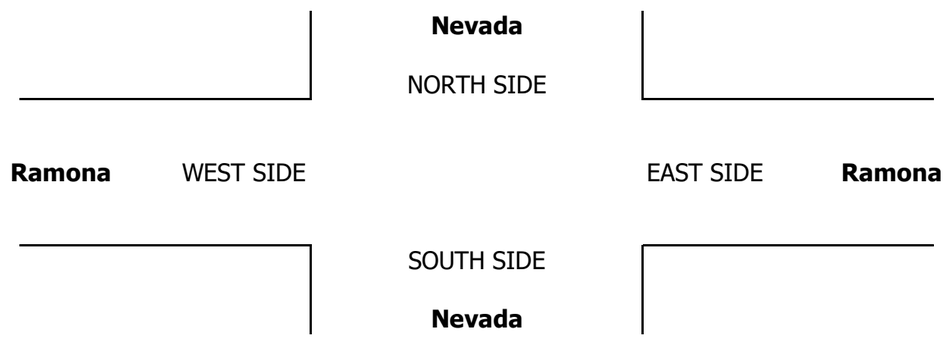
AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	1	0	0	0	0	8	2	0	4	0	15
	7:15 AM	0	0	0	0	0	0	0	7	0	0	4	0	11
	7:30 AM	0	0	0	0	0	0	0	7	0	0	4	0	11
	7:45 AM	0	0	0	0	0	0	0	2	1	0	3	0	6
	8:00 AM	0	0	0	0	0	0	0	4	0	0	3	0	7
	8:15 AM	0	0	0	0	0	0	0	7	0	0	4	0	11
	8:30 AM	0	0	0	0	0	0	0	1	0	0	4	0	5
	8:45 AM	0	0	0	0	0	0	0	2	2	0	8	0	12
	VOLUMES	0	0	1	0	0	0	0	38	5	0	34	0	78
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	88%	12%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	5	43	/	39	34	/	34	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	20	1	0	14	0	35
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	95%	5%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.750			0.875		0.795
	APP/DEPART	0	/	0	0	/	1	21	/	20	14	/	14	0
PM	04:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	4:15 PM	0	0	0	0	0	0	0	1	1	0	2	0	4
	4:30 PM	0	0	0	0	0	0	0	4	0	0	4	0	8
	4:45 PM	0	0	0	0	0	0	0	4	1	0	4	0	9
	5:00 PM	2	0	0	0	0	0	0	1	0	0	4	0	7
	5:15 PM	0	0	0	0	0	0	0	2	0	0	4	0	6
	5:30 PM	0	0	0	0	0	0	0	1	2	0	2	0	5
	5:45 PM	0	0	0	0	0	0	0	4	1	0	3	0	8
	VOLUMES	2	0	0	0	0	0	0	18	5	0	25	0	50
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	78%	22%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	5	23	/	18	25	/	27	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	2	0	0	0	0	0	0	11	1	0	16	0	30
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	92%	8%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.000			0.600			1.000		0.833
	APP/DEPART	2	/	0	0	/	1	12	/	11	16	/	18	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR			
NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Nevada	LOCATION #:	3
	EAST & WEST:	Ramona	CONTROL:	STOP N

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

	NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	9	2	0	13	0	24
7:15 AM	0	0	0	0	0	0	0	13	0	0	15	0	28
7:30 AM	0	0	0	0	0	0	0	18	0	0	13	0	31
7:45 AM	0	0	0	0	0	0	0	13	4	0	17	0	34
8:00 AM	0	0	0	0	0	0	0	10	5	0	7	0	22
8:15 AM	0	0	0	0	0	0	0	11	2	0	10	0	23
8:30 AM	0	0	0	0	0	0	0	15	1	0	11	0	27
8:45 AM	0	0	0	0	0	0	0	24	7	1	9	0	41
VOLUMES	0	0	0	0	0	0	0	113	21	1	95	0	230
APPROACH %	0%	0%	0%	0%	0%	0%	0%	84%	16%	1%	99%	0%	
APP/DEPART	0	/	0	0	/	22	134	/	113	96	/	95	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	0	0	0	0	54	9	0	52	0	115
APPROACH %	0%	0%	0%	0%	0%	0%	0%	86%	14%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.875			0.765		0.846
APP/DEPART	0	/	0	0	/	9	63	/	54	52	/	52	0
04:00 PM	0	0	0	0	0	0	0	14	0	0	14	0	28
4:15 PM	0	0	0	0	0	0	0	14	1	0	9	0	24
4:30 PM	0	0	0	0	0	0	0	10	0	0	10	0	20
4:45 PM	0	0	0	0	0	0	0	12	1	0	10	0	23
5:00 PM	1	0	0	0	0	0	0	9	0	0	9	0	19
5:15 PM	0	0	0	0	0	0	0	11	1	0	13	0	25
5:30 PM	0	0	0	0	0	0	0	12	0	0	8	0	20
5:45 PM	0	0	0	0	0	0	0	11	0	0	6	0	17
VOLUMES	1	0	0	0	0	0	0	93	3	0	79	0	176
APPROACH %	100%	0%	0%	0%	0%	0%	0%	97%	3%	0%	100%	0%	
APP/DEPART	1	/	0	0	/	3	96	/	93	79	/	80	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	1	0	0	0	0	0	0	42	2	0	42	0	87
APPROACH %	100%	0%	0%	0%	0%	0%	0%	95%	5%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.000			0.846			0.808		0.870
APP/DEPART	1	/	0	0	/	2	44	/	42	42	/	43	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
					0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
					0	0	0	0

Nevada

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

Nevada

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Nevada	LOCATION #:	3
	EAST & WEST:	Ramona	CONTROL:	STOP N

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

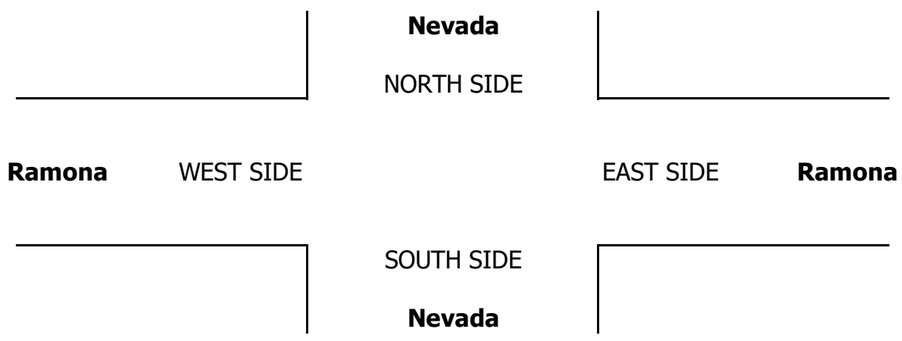
		NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Nevada	LOCATION #:	3
	EAST & WEST:	Ramona	CONTROL:	STOP N

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

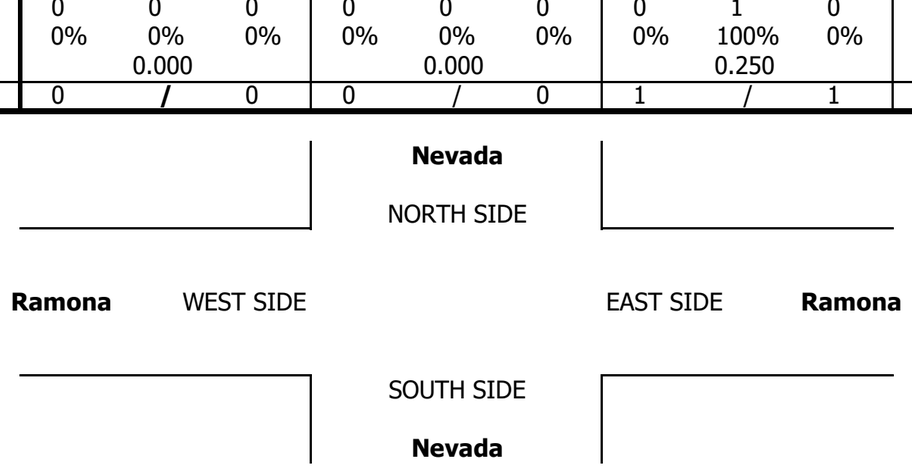
		NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	8:00 AM	0	0	0	0	0	0	0	1	0	1	1	0	3
	8:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	0	0	0	0	0	9	0	1	5	0	15
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	17%	83%	0%	
	APP/DEPART	0	/	0	0	/	1	9	/	9	6	/	5	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	4	0	1	4	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	20%	80%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.625		0.750
	APP/DEPART	0	/	0	0	/	1	4	/	4	5	/	4	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	3	0	0	4	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	3	/	3	4	/	4	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	1	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.500
	APP/DEPART	0	/	0	0	/	0	1	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, May 25, 23

LOCATION: Perris
NORTH & SOUTH: Webster
EAST & WEST: Ramona

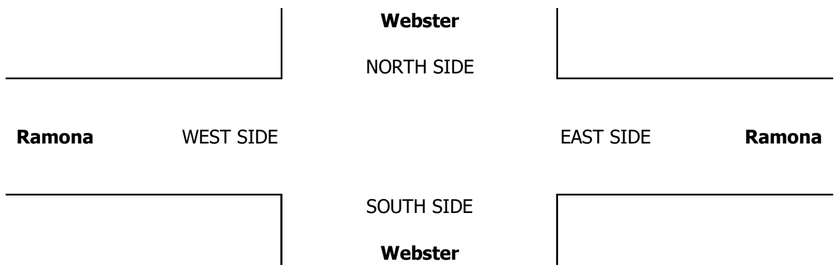
PROJECT #: SC4061
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

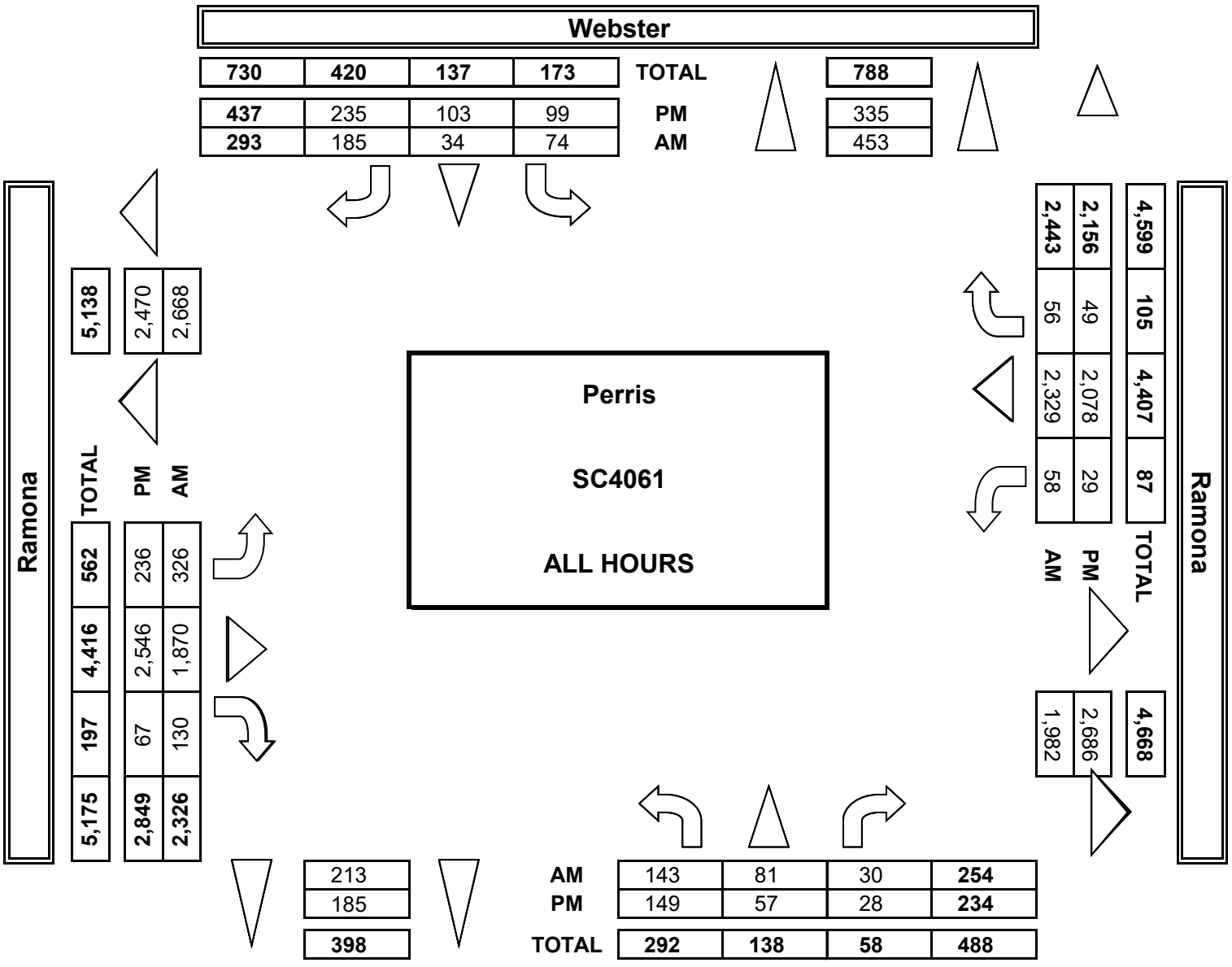
		NORTHBOUND Webster			SOUTHBOUND Webster			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	21	23	2	11	7	29	50	232	15	6	304	7	707	0	0	2	1	3	0	16	2	2
	7:15 AM	19	12	3	4	2	28	48	250	17	5	332	5	725	0	0	1	0	1	2	17	5	1
	7:30 AM	22	15	4	11	5	9	41	267	11	2	323	10	720	0	1	1	0	2	1	4	2	2
	7:45 AM	17	10	5	6	2	13	50	278	22	8	280	8	699	0	0	1	0	1	3	7	7	0
	8:00 AM	16	5	4	9	7	22	48	256	17	11	278	8	681	0	0	0	2	2	2	13	4	2
	8:15 AM	16	5	6	9	2	34	31	212	15	9	283	8	630	0	0	2	1	3	5	15	6	1
	8:30 AM	19	5	3	12	5	23	27	193	21	8	265	4	585	0	0	3	3	6	2	11	2	1
	8:45 AM	13	6	3	12	4	27	31	182	12	9	264	6	569	0	0	1	2	3	2	8	1	1
	VOLUMES	143	81	30	74	34	185	326	1,870	130	58	2,329	56	5,316	0	1	11	9	21	17	91	29	10
	APPROACH %	56%	32%	12%	25%	12%	63%	14%	80%	6%	2%	95%	2%										
	APP/DEPART	254	/	453	293	/	213	2,326	/	1,982	2,443	/	2,668	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	79	60	14	32	16	79	189	1,027	65	21	1,239	30	2,851						6	44	16	5
	APPROACH %	52%	39%	9%	25%	13%	62%	15%	80%	5%	2%	96%	2%										
	PEAK HR FACTOR		0.832			0.676			0.915			0.943		0.983									
	APP/DEPART	153	/	275	127	/	101	1,281	/	1,073	1,290	/	1,402	0									
PM	04:00 PM	19	10	5	14	15	31	34	306	11	6	263	7	721	0	0	2	5	7	2	26	3	1
	4:15 PM	22	4	2	9	6	23	23	296	8	4	271	4	672	0	0	1	1	2	0	12	0	0
	4:30 PM	32	9	8	14	14	33	34	341	9	1	267	6	768	0	0	0	0	0	3	15	1	3
	4:45 PM	14	6	2	15	20	27	36	317	7	4	282	7	737	0	1	0	2	3	0	13	2	1
	5:00 PM	22	12	3	11	11	25	31	329	5	4	229	5	687	0	0	2	2	4	1	15	1	1
	5:15 PM	11	10	2	6	10	30	25	304	10	3	273	6	690	0	0	1	0	1	1	18	4	1
	5:30 PM	15	4	2	19	15	40	24	343	7	4	247	5	725	0	0	0	2	2	0	19	3	0
	5:45 PM	14	2	4	11	12	26	29	310	10	3	246	9	676	0	0	2	2	4	3	15	3	1
	VOLUMES	149	57	28	99	103	235	236	2,546	67	29	2,078	49	5,676	0	1	8	14	23	10	133	17	8
	APPROACH %	64%	24%	12%	23%	24%	54%	8%	89%	2%	1%	96%	2%										
	APP/DEPART	234	/	335	437	/	185	2,849	/	2,686	2,156	/	2,470	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	87	29	17	52	55	114	127	1,260	35	15	1,083	24	2,898						5	66	6	5
	APPROACH %	65%	22%	13%	24%	25%	52%	9%	89%	2%	1%	97%	2%										
	PEAK HR FACTOR		0.679			0.891			0.926			0.957		0.943									
	APP/DEPART	133	/	178	221	/	97	1,422	/	1,336	1,122	/	1,287	0									

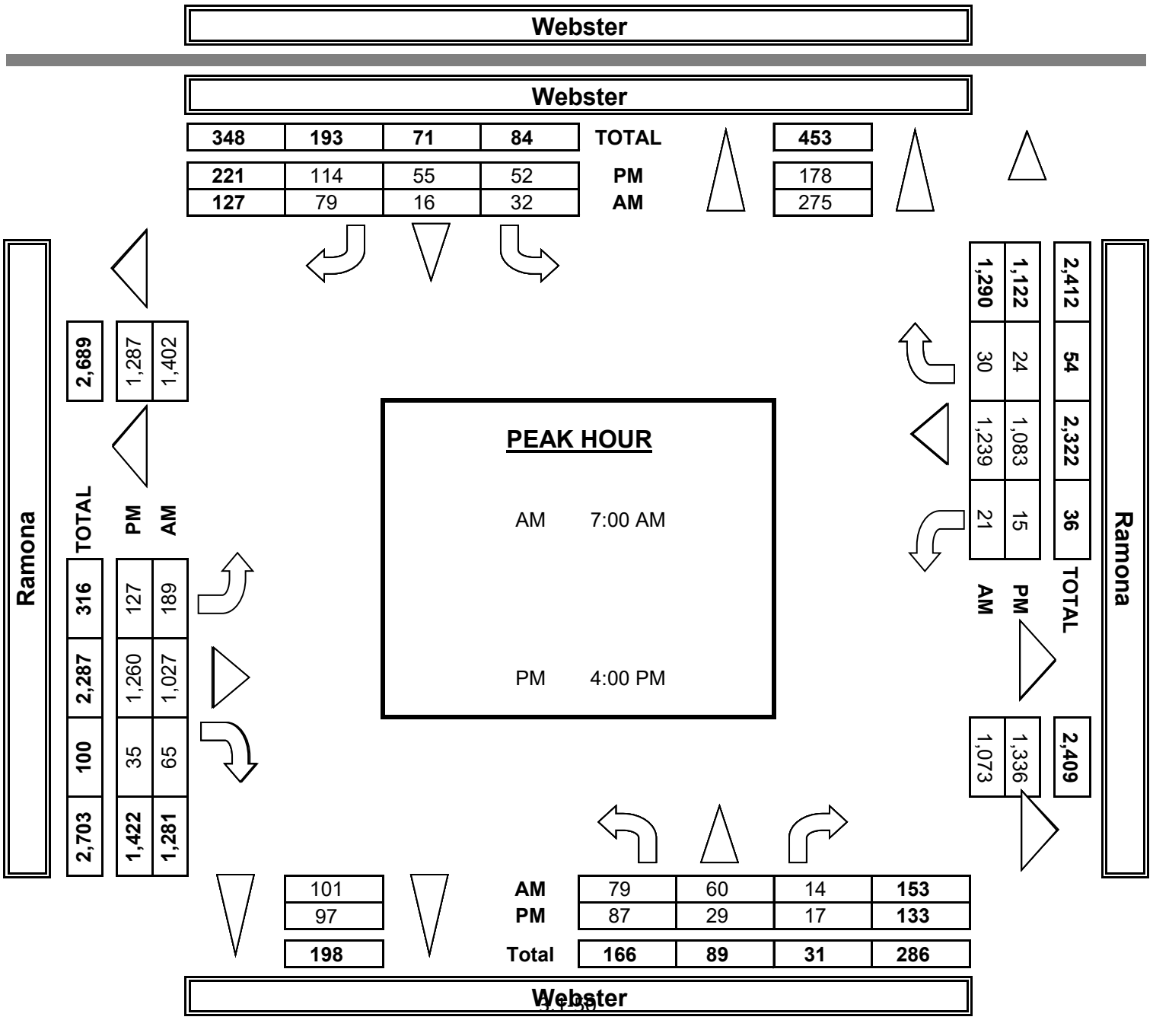


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	TOTAL	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	Webster
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Webster			SOUTHBOUNI Webster	
		NL	NT	NR	SL	ST
	LANES:	1	1	1	1	1
AM	7:00 AM	34	25	5	18	8
	7:15 AM	24	15	4	4	3
	7:30 AM	28	16	8	12	5
	7:45 AM	23	11	7	6	2
	8:00 AM	23	5	6	9	7
	8:15 AM	21	5	6	11	2
	8:30 AM	24	5	4	14	5
	8:45 AM	15	7	3	14	4
	VOLUMES	191	88	43	87	36
	APPROACH %	60%	27%	13%	25%	10%
	APP/DEPART	321	/	500	344	/
	BEGIN PEAK HR		7:00 AM			
	VOLUMES	109	66	24	40	18
	APPROACH %	55%	33%	12%	25%	11%
	PEAK HR FACTOR		0.773			0.647
	APP/DEPART	198	/	296	157	/
PM	04:00 PM	23	10	7	14	15
	4:15 PM	27	5	4	9	6
	4:30 PM	44	9	10	14	14
	4:45 PM	17	6	4	17	20
	5:00 PM	32	12	5	12	11
	5:15 PM	14	10	4	6	10
	5:30 PM	19	5	4	19	15
	5:45 PM	17	2	7	11	13
	VOLUMES	191	58	45	101	104
	APPROACH %	65%	20%	15%	22%	23%

APP/DEPART	294	/	364	452	/
BEGIN PEAK HR		4:00 PM			
VOLUMES	111	30	25	54	55
APPROACH %	67%	18%	15%	23%	24%
PEAK HR FACTOR		0.660			0.869
APP/DEPART	165	/	192	230	/

Ramona WEST SIDE

RNING MOVEMENT COUNTS

LC. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 4
CONTROL: SIGNAL

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ramona			WESTBOUND Ramona			
SR	EL	ET	ER	WL	WT	WR	TOTAL
0	1	3	0	1	3	1	
35	52	266	22	7	335	7	812
37	53	273	29	5	366	5	816
12	42	317	15	4	355	11	822
17	53	308	25	9	322	9	789
25	50	288	19	11	300	9	751
39	34	242	19	9	310	9	706
27	30	223	36	8	295	5	673
32	40	230	19	9	296	6	673
222	352	2,144	184	61	2,576	60	6,041
64%	13%	80%	7%	2%	96%	2%	
280	2,680	/	2,274	2,696	/	2,988	0
100	200	1,163	91	24	1,377	31	3,239
64%	14%	80%	6%	2%	96%	2%	
		0.942			0.953		0.985
132	1,453	/	1,226	1,431	/	1,585	0
33	38	335	18	6	299	7	805
24	26	325	15	4	295	4	743
35	36	364	15	1	285	6	831
30	40	353	11	4	305	7	812
26	34	353	7	4	247	5	746
31	27	322	21	3	306	8	761
43	25	372	11	6	262	5	784
27	31	332	18	3	262	9	730
247	255	2,755	115	31	2,258	51	6,209
55%	8%	88%	4%	1%	97%	2%	

250	3,124	/	2,901	2,340	/	2,696	0
121 53%	139 9%	1,377 88% 0.950	58 4%	15 1%	1,183 97% 0.968	24 2%	3,189 0.960
128	1,573	/	1,455	1,222	/	1,414	0

Webster

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

Webster

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Webster	LOCATION #:	4
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Webster			SOUTHBOUND Webster			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM 7:00 AM	13	22	0	7	6	17	47	193	11	5	268	7	596
7:15 AM	15	10	2	4	1	18	42	230	10	5	302	5	644
7:30 AM	19	14	0	9	5	7	39	224	9	0	291	9	626
7:45 AM	12	9	3	6	2	6	47	254	20	7	246	7	619
8:00 AM	12	5	2	9	7	17	46	223	16	11	251	6	605
8:15 AM	13	5	6	8	2	27	27	190	12	9	254	6	559
8:30 AM	15	5	2	11	5	19	22	162	10	8	235	2	496
8:45 AM	11	5	3	10	4	23	23	143	7	9	232	6	476
VOLUMES	110	75	18	64	32	134	293	1,619	95	54	2,079	48	4,621
APPROACH %	54%	37%	9%	28%	14%	58%	15%	81%	5%	2%	95%	2%	
APP/DEPART	203	/	406	230	/	172	2,007	/	1,709	2,181	/	2,334	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	59	55	5	25	14	48	170	901	50	16	1,107	28	2,485
APPROACH %	50%	46%	4%	28%	16%	55%	15%	80%	4%	1%	96%	2%	
PEAK HR FACTOR		0.850			0.733			0.877			0.923		0.965
APP/DEPART	119	/	254	88	/	80	1,126	/	932	1,152	/	1,219	0
PM 04:00 PM	17	10	3	14	15	27	30	278	7	6	231	7	645
4:15 PM	18	3	0	9	6	21	18	272	4	4	248	4	607
4:30 PM	25	9	6	14	14	30	31	322	5	1	250	6	713
4:45 PM	12	6	0	13	20	25	32	280	4	4	264	7	667
5:00 PM	16	12	1	10	11	23	26	307	4	4	213	5	632
5:15 PM	9	10	0	6	10	29	21	287	4	3	247	5	631
5:30 PM	13	3	0	19	15	38	22	318	5	2	235	5	675
5:45 PM	12	2	1	11	10	25	27	290	6	3	233	9	629
VOLUMES	122	55	11	96	101	218	207	2,354	39	27	1,921	48	5,199
APPROACH %	65%	29%	6%	23%	24%	53%	8%	91%	2%	1%	96%	2%	
APP/DEPART	188	/	304	415	/	154	2,600	/	2,473	1,996	/	2,268	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	72	28	9	49	55	103	108	1,152	20	7	993	24	2,632
APPROACH %	66%	26%	8%	24%	26%	50%	8%	90%	2%	1%	96%	2%	
PEAK HR FACTOR		0.681			0.897			0.896			0.938		0.923
APP/DEPART	109	/	161	208	/	82	1,283	/	1,218	1,032	/	1,171	0

U-TURNS

	NB	SB	EB	WB	TTL
AM	0	0	2	1	3
	0	0	1	0	1
	0	1	1	0	2
	0	0	1	0	1
	0	0	0	2	2
	0	0	2	1	3
	0	0	3	3	6
	0	0	1	2	3
	0	1	11	9	21
PM	0	0	2	5	7
	0	0	1	1	2
	0	0	0	0	0
	0	1	0	2	3
	0	0	2	2	4
	0	0	0	0	0
	0	0	0	1	1
	0	0	2	2	4
	0	1	7	13	21

RTOR

	NRR	SRR	ERR	WRR
AM	0	0	0	0
	1	12	2	1
	0	2	2	2
	2	3	6	0
	1	12	4	1
	5	9	6	0
	1	10	0	1
	2	7	1	1
	12	66	23	8
	3	28	12	5
PM	1	23	2	1
	0	12	0	0
	2	15	0	3
	0	12	1	1
	1	13	1	1
	0	17	1	1
	0	18	3	0
	1	15	3	1
	5	125	11	8
	3	62	3	5

Webster

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

Webster

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Webster	LOCATION #:	4
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

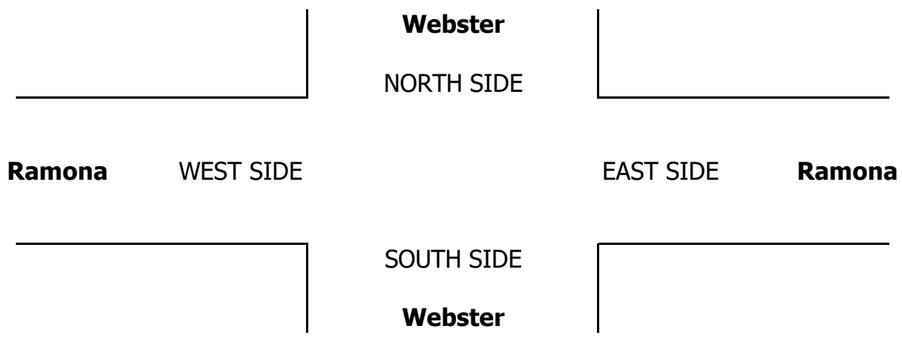
CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Webster			SOUTHBOUND Webster			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
7:00 AM	2	0	0	1	0	12	3	23	0	1	24	0	66
7:15 AM	2	1	0	0	1	7	4	9	0	0	15	0	39
7:30 AM	0	1	1	2	0	1	2	18	0	1	19	1	46
7:45 AM	2	1	0	0	0	7	2	11	0	1	15	1	40
8:00 AM	0	0	0	0	0	5	1	20	0	0	19	2	47
8:15 AM	0	0	0	0	0	6	3	5	0	0	19	2	35
8:30 AM	1	0	0	0	0	3	5	21	5	0	19	2	56
8:45 AM	1	0	0	1	0	2	4	19	2	0	17	0	46
VOLUMES	8	3	1	4	1	43	24	126	7	3	147	8	375
APPROACH %	67%	25%	8%	8%	2%	90%	15%	80%	4%	2%	93%	5%	
APP/DEPART	12	/	35	48	/	11	157	/	131	158	/	198	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	6	3	1	3	1	27	11	61	0	3	73	2	191
APPROACH %	60%	30%	10%	10%	3%	87%	15%	85%	0%	4%	94%	3%	
PEAK HR FACTOR		0.833			0.596			0.692			0.780		0.723
APP/DEPART	10	/	16	31	/	4	72	/	65	78	/	106	0
04:00 PM	0	0	0	0	0	4	3	18	0	0	16	0	41
4:15 PM	2	1	0	0	0	2	4	12	1	0	13	0	35
4:30 PM	1	0	0	0	0	3	3	8	1	0	9	0	25
4:45 PM	0	0	0	1	0	1	3	23	0	0	7	0	35
5:00 PM	1	0	0	1	0	2	5	13	0	0	7	0	29
5:15 PM	1	0	0	0	0	1	4	10	0	0	10	0	26
5:30 PM	0	1	0	0	0	1	2	13	0	1	5	0	23
5:45 PM	1	0	0	0	2	1	1	10	0	0	5	0	20
VOLUMES	6	2	0	2	2	15	25	107	2	1	72	0	234
APPROACH %	75%	25%	0%	11%	11%	79%	19%	80%	1%	1%	99%	0%	
APP/DEPART	8	/	26	19	/	5	134	/	109	73	/	94	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	3	1	0	1	0	10	13	61	2	0	45	0	136
APPROACH %	75%	25%	0%	9%	0%	91%	17%	80%	3%	0%	100%	0%	
PEAK HR FACTOR		0.333			0.688			0.731			0.703		0.829
APP/DEPART	4	/	14	11	/	2	76	/	62	45	/	58	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
					0	0	0	0
0	0	0	0	0	0	5	0	0
0	0	0	0	0	0	4	0	0
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	4	0	0
0	0	0	0	0	0	1	0	1
0	0	0	0	0	0	6	0	1
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	22	0	2
					0	14	0	0
0	0	0	0	0	0	3	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	2	0	0
0	0	1	0	1	0	1	0	0
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	8	0	0
					0	4	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Webster	LOCATION #:	4
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM		▲ N	
PM			
MD	◄ W		E ►
OTHER		S	
OTHER		▼	

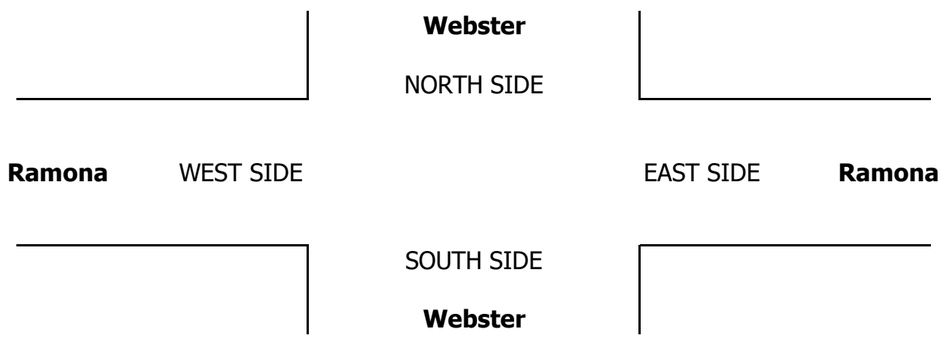
		NORTHBOUND Webster			SOUTHBOUND Webster			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	1	0	0	8	1	0	4	0	14
	7:15 AM	0	0	0	0	0	1	1	4	2	0	3	0	11
	7:30 AM	0	0	0	0	0	0	0	7	0	0	4	0	11
	7:45 AM	0	0	0	0	0	0	0	1	1	0	3	0	5
	8:00 AM	1	0	0	0	0	0	0	4	0	0	2	0	7
	8:15 AM	1	0	0	0	0	0	1	4	2	0	3	0	11
	8:30 AM	2	0	0	0	0	0	0	1	0	0	2	0	5
	8:45 AM	1	1	0	1	0	0	1	1	0	0	7	0	12
	VOLUMES	5	1	0	1	1	1	3	30	6	0	28	0	76
	APPROACH %	83%	17%	0%	33%	33%	33%	8%	77%	15%	0%	100%	0%	
	APP/DEPART	6	/	4	3	/	7	39	/	31	28	/	34	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	1	1	1	20	4	0	14	0	41
	APPROACH %	0%	0%	0%	0%	50%	50%	4%	80%	16%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.500			0.694			0.875		0.732
	APP/DEPART	0	/	1	2	/	5	25	/	20	14	/	15	0
PM	04:00 PM	0	0	0	0	0	0	0	0	1	0	2	0	3
	4:15 PM	0	0	0	0	0	0	1	0	0	0	2	0	3
	4:30 PM	1	0	0	0	0	0	0	3	1	0	3	0	8
	4:45 PM	1	0	0	1	0	0	0	2	2	0	3	0	9
	5:00 PM	0	0	0	0	0	0	0	1	0	0	4	0	5
	5:15 PM	0	0	0	0	0	0	0	1	1	0	4	0	6
	5:30 PM	0	0	0	0	0	0	0	1	0	1	2	0	4
	5:45 PM	0	0	0	0	0	0	1	3	0	0	3	0	7
	VOLUMES	2	0	0	1	0	0	2	11	5	1	23	0	45
	APPROACH %	100%	0%	0%	100%	0%	0%	11%	61%	28%	4%	96%	0%	
	APP/DEPART	2	/	2	1	/	5	18	/	13	24	/	25	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	0	0	1	0	0	1	5	4	0	10	0	23
	APPROACH %	100%	0%	0%	100%	0%	0%	10%	50%	40%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.250			0.625			0.833		0.639
	APP/DEPART	2	/	1	1	/	4	10	/	6	10	/	12	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Webster	LOCATION #:	4
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

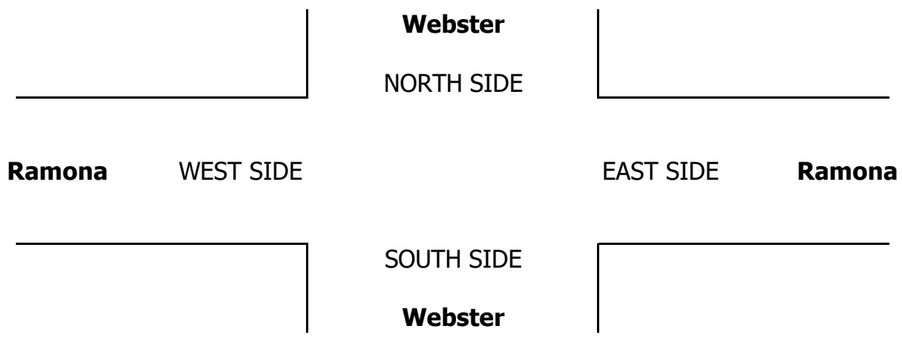
	NORTHBOUND Webster			SOUTHBOUND Webster			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
7:00 AM	6	1	1	3	0	0	0	6	3	0	7	0	27
7:15 AM	2	1	0	0	0	2	1	7	5	0	11	0	29
7:30 AM	3	0	0	0	0	1	0	16	2	0	9	0	31
7:45 AM	2	0	0	0	0	0	1	11	1	0	15	0	30
8:00 AM	3	0	0	0	0	0	0	9	1	0	4	0	17
8:15 AM	2	0	0	1	0	1	0	10	1	0	7	0	22
8:30 AM	1	0	0	1	0	1	0	9	6	0	9	0	27
8:45 AM	0	0	0	0	0	2	3	18	3	0	8	0	34
VOLUMES	19	2	1	5	0	7	5	86	22	0	70	0	217
APPROACH %	86%	9%	5%	42%	0%	58%	4%	76%	19%	0%	100%	0%	
APP/DEPART	22	/	7	12	/	22	113	/	92	70	/	96	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	13	2	1	3	0	3	2	40	11	0	42	0	117
APPROACH %	81%	13%	6%	50%	0%	50%	4%	75%	21%	0%	100%	0%	
PEAK HR FACTOR		0.500			0.500			0.736			0.700		0.944
APP/DEPART	16	/	4	6	/	11	53	/	44	42	/	58	0
04:00 PM	2	0	0	0	0	0	1	10	3	0	12	0	28
4:15 PM	2	0	0	0	0	0	0	11	3	0	7	0	23
4:30 PM	5	0	0	0	0	0	0	8	2	0	5	0	20
4:45 PM	1	0	0	0	0	1	1	10	1	0	8	0	22
5:00 PM	4	0	0	0	0	0	0	8	1	0	5	0	18
5:15 PM	1	0	0	0	0	0	0	6	5	0	12	1	25
5:30 PM	2	0	0	0	0	1	0	10	2	0	5	0	20
5:45 PM	1	0	0	0	0	0	0	7	4	0	5	0	17
VOLUMES	18	0	0	0	0	2	2	70	21	0	59	1	173
APPROACH %	100%	0%	0%	0%	0%	100%	2%	75%	23%	0%	98%	2%	
APP/DEPART	18	/	3	2	/	21	93	/	70	60	/	79	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	10	0	0	0	0	1	2	39	9	0	32	0	93
APPROACH %	100%	0%	0%	0%	0%	100%	4%	78%	18%	0%	100%	0%	
PEAK HR FACTOR		0.500			0.250			0.893			0.667		0.830
APP/DEPART	10	/	2	1	/	9	50	/	39	32	/	43	0

U-TURNS

	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
PM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

RTOR

	NRR	SRR	ERR	WRR
AM	0	0	0	0
	0	0	0	0
	0	1	3	0
	0	1	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	2	0
	0	1	0	0
PM	0	3	5	0
	0	2	3	0
	0	0	0	0
	0	0	0	0
	0	0	1	0
	0	0	1	0
	0	0	0	0
	0	0	3	0
	0	0	0	0
	0	0	0	0
	0	0	5	0
	0	0	2	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Webster	LOCATION #:	4
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

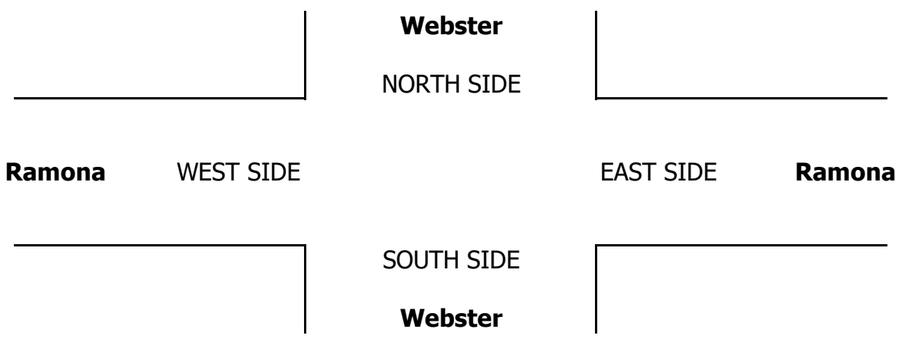
		NORTHBOUND Webster			SOUTHBOUND Webster			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Webster	LOCATION #:	4
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N

◄ W E ►

S ▼

		NORTHBOUND Webster			SOUTHBOUND Webster			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	1	0	0	0	0	1	0	0	1	0	3
	7:15 AM	0	0	1	0	0	0	0	0	0	0	1	0	2
	7:30 AM	0	0	3	0	0	0	0	2	0	1	0	0	6
	7:45 AM	1	0	2	0	0	0	0	1	0	0	1	0	5
	8:00 AM	0	0	2	0	0	0	1	0	0	0	2	0	5
	8:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	1	0	10	0	0	0	1	8	0	1	5	0	26
	APPROACH %	9%	0%	91%	0%	0%	0%	11%	89%	0%	17%	83%	0%	
	APP/DEPART	11	/	1	0	/	1	9	/	18	6	/	6	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	0	7	0	0	0	0	4	0	1	3	0	16
	APPROACH %	13%	0%	88%	0%	0%	0%	0%	100%	0%	25%	75%	0%	
	PEAK HR FACTOR		0.667			0.000			0.500			1.000		0.667
	APP/DEPART	8	/	0	0	/	1	4	/	11	4	/	4	0
PM	04:00 PM	0	0	2	0	0	0	0	0	0	0	2	0	4
	4:15 PM	0	0	2	0	0	0	0	1	0	0	1	0	4
	4:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	2
	4:45 PM	0	0	2	0	0	0	0	1	0	0	0	0	3
	5:00 PM	1	0	2	0	0	0	0	0	0	0	0	0	3
	5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	2
	5:30 PM	0	0	2	0	0	0	0	1	0	0	0	0	3
	5:45 PM	0	0	3	0	0	0	0	0	0	0	0	0	3
	VOLUMES	1	0	17	0	0	0	0	3	0	0	3	0	24
	APPROACH %	6%	0%	94%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	18	/	0	0	/	0	3	/	20	3	/	4	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	8	0	0	0	0	2	0	0	3	0	13
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		1.000			0.000			0.500			0.375		0.813
	APP/DEPART	8	/	0	0	/	0	2	/	10	3	/	3	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR			
NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
5	0	0	0
3	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
2	0	0	0
5	0	0	0
2	0	0	0

Webster

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

Webster

INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, May 25, 23

LOCATION: Perris
NORTH & SOUTH: Indian
EAST & WEST: Ramona

PROJECT #: SC4061
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

		NORTHBOUND Indian			SOUTHBOUND Indian			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	6	47	9	3	6	10	22	194	5	9	308	17	636	0	0	0	0	0	5	4	1	4
	7:15 AM	9	22	3	5	16	5	31	221	6	3	308	13	642	0	0	2	0	2	2	5	1	6
	7:30 AM	3	21	11	3	12	7	29	240	10	9	333	20	698	0	0	0	0	0	7	3	2	7
	7:45 AM	10	25	7	8	13	11	38	238	14	10	302	15	691	0	1	1	0	2	5	9	1	9
	8:00 AM	7	20	6	2	24	10	13	249	9	10	278	10	638	0	0	0	0	0	5	7	3	3
	8:15 AM	8	13	3	5	12	7	19	208	9	10	281	6	581	0	1	0	0	1	2	5	5	6
	8:30 AM	9	14	4	4	9	8	11	196	5	2	307	8	577	0	0	0	0	0	4	6	1	3
	8:45 AM	7	4	6	5	7	11	14	174	7	5	253	4	497	0	0	0	0	0	0	7	1	3
	VOLUMES	59	166	49	35	99	69	177	1,720	65	58	2,370	93	4,960	0	2	3	0	5	30	46	15	41
	APPROACH %	22%	61%	18%	17%	49%	34%	9%	88%	3%	2%	94%	4%										
	APP/DEPART	274	/	435	203	/	222	1,962	/	1,802	2,521	/	2,501	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	29	88	27	18	65	33	111	948	39	32	1,221	58	2,669						19	24	7	25
	APPROACH %	20%	61%	19%	16%	56%	28%	10%	86%	4%	2%	93%	4%										
	PEAK HR FACTOR		0.857			0.806			0.947			0.905		0.956									
	APP/DEPART	144	/	255	116	/	136	1,098	/	992	1,311	/	1,286	0									
PM	04:00 PM	16	38	33	20	30	22	22	312	10	15	250	19	787	0	0	0	0	0	10	13	4	6
	4:15 PM	19	20	28	11	30	10	22	285	8	9	248	19	709	0	0	0	0	0	13	5	1	6
	4:30 PM	17	22	27	22	55	27	35	314	8	9	244	18	798	0	0	1	0	1	14	16	0	5
	4:45 PM	18	23	8	18	50	24	18	304	5	13	231	13	725	0	0	0	0	0	5	20	1	6
	5:00 PM	9	13	7	17	36	18	6	339	10	20	238	2	715	0	0	0	0	0	3	13	2	1
	5:15 PM	13	8	5	12	57	10	7	295	14	31	245	6	703	0	0	0	0	0	4	3	8	2
	5:30 PM	5	13	9	13	41	13	14	336	17	33	239	7	740	0	0	1	1	2	6	8	2	4
	5:45 PM	9	15	10	15	40	15	11	311	12	31	222	11	702	0	0	0	0	0	4	9	4	1
	VOLUMES	106	152	127	128	339	139	135	2,496	84	161	1,917	95	5,879	0	0	2	1	3	59	87	22	31
	APPROACH %	28%	39%	33%	21%	56%	23%	5%	92%	3%	7%	88%	4%										
	APP/DEPART	385	/	380	606	/	583	2,715	/	2,752	2,173	/	2,164	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	70	103	96	71	165	83	97	1,215	31	46	973	69	3,019						42	54	6	23
	APPROACH %	26%	38%	36%	22%	52%	26%	7%	90%	2%	4%	89%	6%										
	PEAK HR FACTOR		0.773			0.767			0.940			0.958		0.946									
	APP/DEPART	269	/	268	319	/	242	1,343	/	1,382	1,088	/	1,127	0									

Indian

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

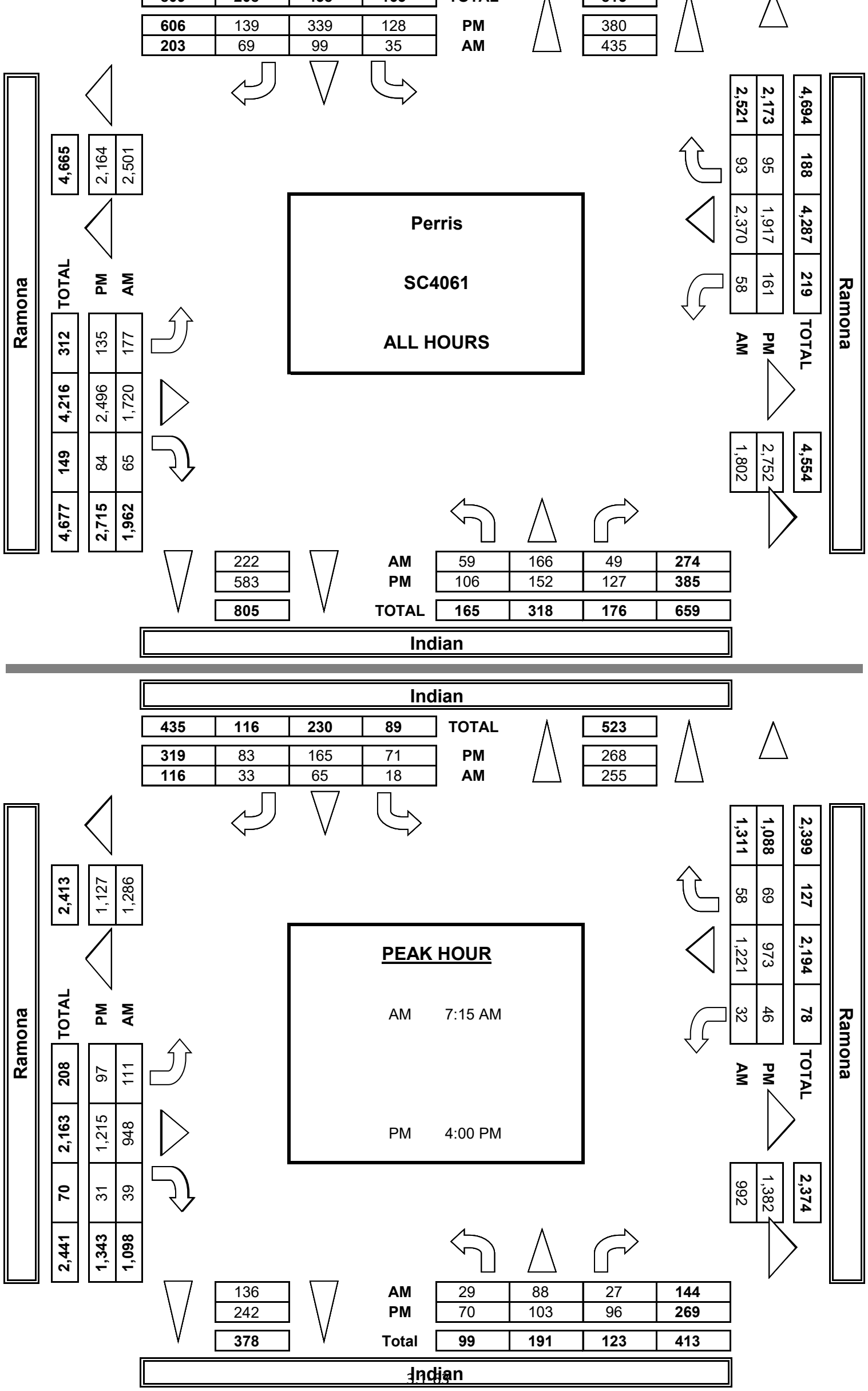
SOUTH SIDE

Indian

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	2	3	0	1	0	2	3	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	0	3	4	0	1	0	3	4	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	Indian
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Indian			SOUTHBOUNI Indian	
		NL	NT	NR	SL	ST
	LANES:	1	2	0	1	2
AM	7:00 AM	12	67	9	3	9
	7:15 AM	25	23	3	6	29
	7:30 AM	5	31	12	3	23
	7:45 AM	25	41	7	8	19
	8:00 AM	9	27	8	2	33
	8:15 AM	16	20	3	9	24
	8:30 AM	14	21	4	6	15
	8:45 AM	13	7	10	7	13
	VOLUMES	117	235	56	43	164
	APPROACH %	29%	58%	14%	14%	55%
	APP/DEPART	408	/	563	299	/
	BEGIN PEAK HR		7:15 AM			
	VOLUMES	63	122	30	19	103
	APPROACH %	29%	57%	14%	11%	63%
	PEAK HR FACTOR		0.740			0.890
	APP/DEPART	215	/	321	162	/
PM	04:00 PM	25	60	34	23	36
	4:15 PM	24	26	28	12	42
	4:30 PM	21	24	27	23	65
	4:45 PM	21	34	10	18	50
	5:00 PM	11	23	8	18	43
	5:15 PM	30	15	8	12	66
	5:30 PM	9	21	10	16	46
	5:45 PM	15	30	12	15	49
	VOLUMES	155	231	135	135	396
	APPROACH %	30%	44%	26%	19%	57%

APP/DEPART	521	/	491	696	/
BEGIN PEAK HR		4:00 PM			
VOLUMES	90	144	98	75	192
APPROACH %	27%	43%	30%	21%	53%
PEAK HR FACTOR		0.705			0.794
APP/DEPART	332	/	328	362	/

Ramona WEST SIDE

RNING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 5
CONTROL: SIGNAL

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ramona			WESTBOUND Ramona			
SR	EL	ET	ER	WL	WT	WR	TOTAL
1	1	3	0	1	3	1	
13	29	233	7	11	332	17	741
8	35	246	6	5	327	15	725
11	35	270	18	14	364	22	806
12	45	267	21	15	325	16	799
11	19	276	13	12	293	14	715
10	24	231	13	12	302	6	667
13	15	223	7	2	323	10	650
17	25	203	9	9	283	4	597
93	226	1,946	93	79	2,547	103	5,699
31%	10%	86%	4%	3%	93%	4%	
336	2,264	/	2,044	2,728	/	2,756	0
41	134	1,057	58	46	1,308	66	3,045
25%	11%	85%	5%	3%	92%	5%	
		0.939			0.889		0.944
206	1,249	/	1,106	1,420	/	1,412	0
28	28	336	16	20	271	21	895
14	24	308	12	13	267	20	788
27	36	332	16	15	260	18	862
27	25	332	9	18	244	14	799
20	8	358	16	23	254	2	784
14	10	307	18	35	255	6	775
19	17	355	25	34	248	8	805
18	14	329	15	36	231	11	774
166	162	2,655	127	194	2,028	99	6,481
24%	5%	90%	4%	8%	87%	4%	

716	2,943	/	2,925	2,321	/	2,349	0
96 26%	113 8%	1,307 89% 0.960	53 4%	66 6%	1,040 88% 0.947	72 6%	3,343 0.934
311	1,472	/	1,479	1,178	/	1,226	0

Indian

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

Indian

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Indian	LOCATION #:	5
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

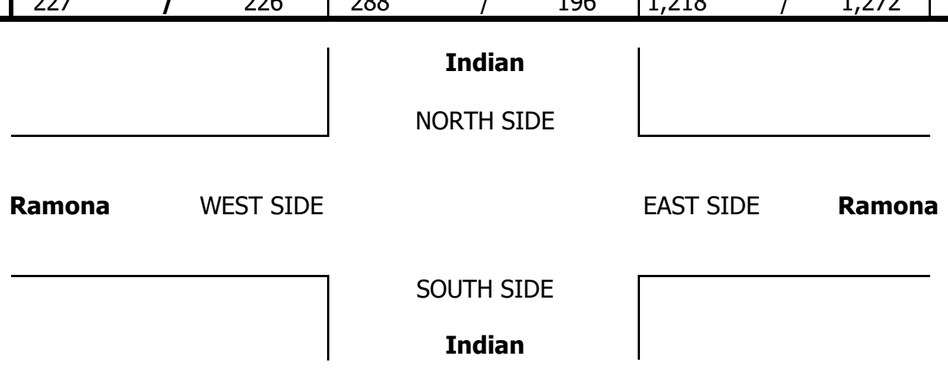
	NORTHBOUND Indian			SOUTHBOUND Indian			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM 7:00 AM	3	31	9	3	4	8	14	157	4	7	273	17	530
7:15 AM	1	21	3	4	9	3	29	195	6	2	284	11	568
7:30 AM	2	16	9	3	5	5	24	211	5	5	298	18	601
7:45 AM	2	15	7	8	10	10	34	207	10	6	273	14	596
8:00 AM	5	14	3	2	17	9	9	219	5	8	258	7	556
8:15 AM	4	8	3	2	5	5	16	188	6	8	257	6	508
8:30 AM	6	9	4	3	4	5	9	170	4	2	287	6	509
8:45 AM	3	2	3	4	2	7	8	148	5	3	222	4	411
VOLUMES	26	116	41	29	56	52	143	1,495	45	41	2,152	83	4,279
APPROACH %	14%	63%	22%	21%	41%	38%	8%	89%	3%	2%	95%	4%	
APP/DEPART	183	/	341	137	/	142	1,683	/	1,563	2,276	/	2,233	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	10	66	22	16	41	27	93	832	26	21	1,113	50	2,321
APPROACH %	10%	67%	22%	19%	48%	32%	10%	87%	3%	2%	94%	4%	
PEAK HR FACTOR		0.907			0.759			0.950			0.922		0.965
APP/DEPART	98	/	210	85	/	88	954	/	870	1,184	/	1,153	0
PM 04:00 PM	11	23	32	18	25	19	19	281	7	11	229	17	692
4:15 PM	16	15	28	10	22	8	21	262	6	6	229	18	641
4:30 PM	15	21	27	21	48	27	33	298	4	5	227	18	744
4:45 PM	16	17	6	18	50	22	13	271	3	9	217	12	654
5:00 PM	8	6	6	16	32	17	5	317	7	17	222	2	655
5:15 PM	4	3	2	12	50	8	5	282	12	28	232	6	644
5:30 PM	2	7	8	11	37	9	12	320	12	32	229	6	685
5:45 PM	5	5	8	15	34	13	9	295	10	27	213	11	645
VOLUMES	77	97	117	121	298	123	117	2,326	61	135	1,798	90	5,360
APPROACH %	26%	33%	40%	22%	55%	23%	5%	93%	2%	7%	89%	4%	
APP/DEPART	291	/	302	542	/	493	2,504	/	2,565	2,023	/	2,000	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	58	76	93	67	145	76	85	1,112	20	31	902	65	2,731
APPROACH %	26%	33%	41%	23%	50%	26%	7%	91%	2%	3%	90%	7%	
PEAK HR FACTOR		0.860			0.750			0.909			0.971		0.918
APP/DEPART	227	/	226	288	/	196	1,218	/	1,272	998	/	1,037	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	2	3	0	5
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	2	1	3

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
5	4	1	4
2	3	1	5
5	3	1	7
5	8	1	9
3	6	1	2
2	4	4	6
4	5	0	3
0	4	1	3
26	37	10	39
15	20	4	23
10	12	4	6
13	4	1	5
14	16	0	5
4	18	0	6
3	12	2	1
1	3	8	2
6	7	2	4
4	9	3	1
55	81	20	30
41	50	5	22



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Indian	LOCATION #:	5
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

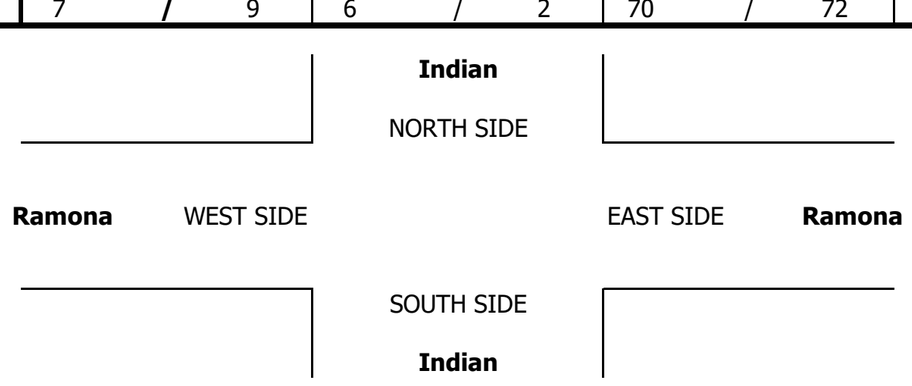
	NORTHBOUND Indian			SOUTHBOUND Indian			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
7:00 AM	0	5	0	0	0	0	6	17	0	0	28	0	56
7:15 AM	0	0	0	1	1	1	0	15	0	0	17	1	36
7:30 AM	0	0	2	0	1	0	2	15	0	1	23	0	44
7:45 AM	1	0	0	0	0	1	0	19	0	0	22	1	44
8:00 AM	1	1	2	0	1	0	1	19	2	0	14	0	41
8:15 AM	0	1	0	1	0	1	1	8	1	1	17	0	31
8:30 AM	1	1	0	0	2	1	0	15	0	0	15	1	36
8:45 AM	1	0	1	0	2	1	1	13	1	0	17	0	37
AM VOLUMES	4	8	5	2	7	5	11	121	4	2	153	3	325
AM APPROACH %	24%	47%	29%	14%	50%	36%	8%	89%	3%	1%	97%	2%	
AM APP/DEPART	17	/	22	14	/	13	136	/	128	158	/	162	0
AM BEGIN PEAK HR		7:15 AM											
AM VOLUMES	2	1	4	1	3	2	3	68	2	1	76	2	165
AM APPROACH %	29%	14%	57%	17%	50%	33%	4%	93%	3%	1%	96%	3%	
AM PEAK HR FACTOR		0.438			0.500			0.830			0.823		0.938
AM APP/DEPART	7	/	6	6	/	6	73	/	73	79	/	80	0
04:00 PM	1	1	1	1	1	0	0	24	0	0	11	1	41
4:15 PM	1	2	0	1	0	0	0	13	0	0	11	1	29
4:30 PM	0	0	0	1	1	0	2	7	0	0	11	0	22
4:45 PM	0	0	1	0	0	1	1	23	0	0	9	1	36
5:00 PM	0	0	0	0	0	0	0	14	0	0	8	0	22
5:15 PM	0	1	1	0	1	0	0	8	0	0	10	0	21
5:30 PM	0	1	1	1	0	1	0	7	1	0	6	0	18
5:45 PM	0	1	0	0	0	1	0	6	0	0	6	0	14
PM VOLUMES	2	6	4	4	3	3	3	102	1	0	72	3	203
PM APPROACH %	17%	50%	33%	40%	30%	30%	3%	96%	1%	0%	96%	4%	
PM APP/DEPART	12	/	12	10	/	4	106	/	110	75	/	77	0
PM BEGIN PEAK HR		4:00 PM											
PM VOLUMES	2	3	2	3	2	1	3	67	0	0	42	3	128
PM APPROACH %	29%	43%	29%	50%	33%	17%	4%	96%	0%	0%	93%	7%	
PM PEAK HR FACTOR		0.583			0.750			0.729			0.938		0.780
PM APP/DEPART	7	/	9	6	/	2	70	/	72	45	/	45	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	1	0	1
2	0	0	0
0	1	0	0
2	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
4	2	1	1
4	2	1	1
0	0	0	0
0	0	0	1
0	0	0	0
1	1	0	0
0	0	0	0
1	0	0	0
0	1	0	0
0	0	0	0
2	2	0	1
1	1	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/25/23	NORTH & SOUTH:	Indian	LOCATION #:	5
THURSDAY	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Indian			SOUTHBOUND Indian			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	5	0	0	1	1	0	7	0	0	4	0	18
	7:15 AM	0	1	0	0	0	0	0	4	0	0	3	1	9
	7:30 AM	0	0	0	0	2	0	1	4	1	0	4	1	13
	7:45 AM	0	3	0	0	0	0	1	1	1	1	1	0	8
	8:00 AM	1	4	1	0	3	1	1	2	1	0	2	1	17
	8:15 AM	0	2	0	1	2	0	0	3	0	0	2	0	10
	8:30 AM	0	2	0	0	1	0	0	2	0	0	1	1	7
	8:45 AM	1	1	1	0	1	1	0	3	1	0	7	0	16
	VOLUMES	2	18	2	1	10	3	3	26	4	1	24	4	98
	APPROACH %	9%	82%	9%	7%	71%	21%	9%	79%	12%	3%	83%	14%	
	APP/DEPART	22	/	25	14	/	15	33	/	29	29	/	29	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	8	1	0	5	1	3	11	3	1	10	3	47
	APPROACH %	10%	80%	10%	0%	83%	17%	18%	65%	18%	7%	71%	21%	
	PEAK HR FACTOR		0.417			0.375			0.708			0.700		0.691
	APP/DEPART	10	/	14	6	/	9	17	/	12	14	/	12	0
PM	04:00 PM	0	7	0	0	1	0	0	0	0	1	3	1	13
	4:15 PM	0	1	0	0	3	0	0	1	0	0	2	0	7
	4:30 PM	0	0	0	0	3	0	0	2	0	0	2	0	7
	4:45 PM	1	1	0	0	0	0	1	2	0	1	2	0	8
	5:00 PM	0	4	1	0	1	0	0	1	0	0	4	0	11
	5:15 PM	1	2	2	0	4	0	1	0	0	0	1	0	11
	5:30 PM	2	3	0	0	3	1	1	1	0	0	2	1	14
	5:45 PM	2	4	2	0	3	0	1	2	1	1	0	0	16
	VOLUMES	6	22	5	0	18	1	4	9	1	3	16	2	87
	APPROACH %	18%	67%	15%	0%	95%	5%	29%	64%	7%	14%	76%	10%	
	APP/DEPART	33	/	28	19	/	22	14	/	14	21	/	23	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	9	0	0	7	0	1	5	0	2	9	1	35
	APPROACH %	10%	90%	0%	0%	100%	0%	17%	83%	0%	17%	75%	8%	
	PEAK HR FACTOR		0.357			0.583			0.500			0.600		0.673
	APP/DEPART	10	/	11	7	/	9	6	/	5	12	/	10	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Indian	LOCATION #:	5
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Indian			SOUTHBOUND Indian			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
7:00 AM	3	6	0	0	1	1	2	10	1	0	3	0	27
7:15 AM	8	0	0	0	6	1	2	6	0	1	3	0	27
7:30 AM	1	5	0	0	4	2	2	8	3	1	7	0	33
7:45 AM	7	6	0	0	3	0	3	7	3	1	5	0	35
8:00 AM	0	1	0	0	2	0	2	6	1	0	2	1	15
8:15 AM	4	2	0	1	5	1	2	7	1	0	5	0	28
8:30 AM	2	2	0	1	2	2	2	8	1	0	3	0	23
8:45 AM	2	1	1	1	2	2	5	9	0	2	7	0	32
VOLUMES	27	23	1	3	25	9	20	61	10	5	35	1	220
APPROACH %	53%	45%	2%	8%	68%	24%	22%	67%	11%	12%	85%	2%	
APP/DEPART	51	/	44	37	/	40	91	/	65	41	/	71	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	16	12	0	0	15	3	9	27	7	3	17	1	110
APPROACH %	57%	43%	0%	0%	83%	17%	21%	63%	16%	14%	81%	5%	
PEAK HR FACTOR		0.538			0.643			0.827			0.656		0.786
APP/DEPART	28	/	22	18	/	25	43	/	27	21	/	36	0
04:00 PM	4	7	0	1	1	3	3	5	3	1	5	0	33
4:15 PM	2	2	0	0	4	2	1	6	2	1	5	0	25
4:30 PM	2	1	0	0	3	0	0	5	4	2	4	0	21
4:45 PM	1	5	0	0	0	1	2	6	2	1	3	0	21
5:00 PM	1	3	0	0	3	1	1	4	3	0	4	0	20
5:15 PM	8	2	0	0	2	2	1	3	2	1	2	0	23
5:30 PM	1	2	0	1	1	2	1	6	3	0	2	0	19
5:45 PM	2	5	0	0	3	1	1	5	1	1	3	0	22
VOLUMES	21	27	0	2	17	12	10	40	20	7	28	0	184
APPROACH %	44%	56%	0%	6%	55%	39%	14%	57%	29%	20%	80%	0%	
APP/DEPART	48	/	37	31	/	44	70	/	42	35	/	61	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	9	15	0	1	8	6	6	22	11	5	17	0	100
APPROACH %	38%	63%	0%	7%	53%	40%	15%	56%	28%	23%	77%	0%	
PEAK HR FACTOR		0.545			0.625			0.886			0.917		0.758
APP/DEPART	24	/	21	15	/	24	39	/	23	22	/	32	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	1	0	0
0	0	1	0
0	0	0	0
0	0	0	1
0	1	0	0
0	1	1	0
0	2	0	0
0	5	2	1
0	1	1	1
0	1	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	4	2	0
0	3	1	0

Indian

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

Indian

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Indian	LOCATION #:	5
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

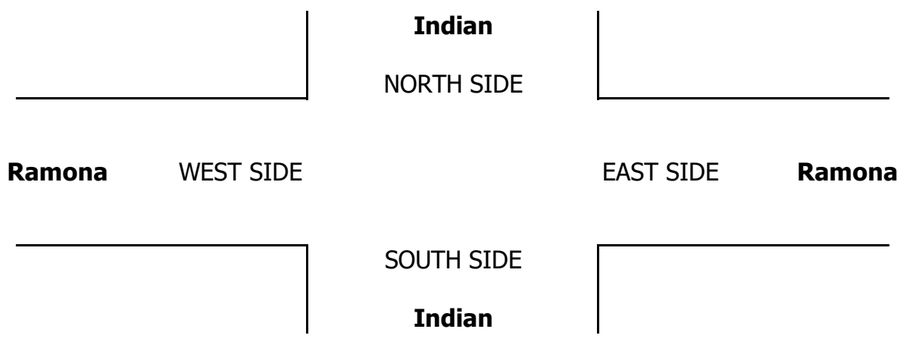
	NORTHBOUND Indian			SOUTHBOUND Indian			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM 04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Indian	LOCATION #:	5
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

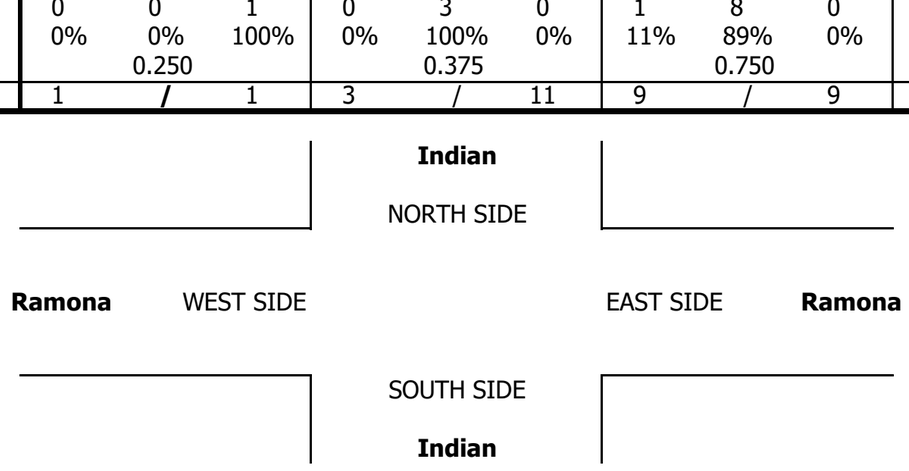
CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

		NORTHBOUND Indian			SOUTHBOUND Indian			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	2	0	2	0	0	4
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:30 AM	0	0	0	0	0	0	0	2	1	2	1	1	7
	7:45 AM	0	1	0	0	0	0	0	4	0	2	1	0	8
	8:00 AM	0	0	0	0	1	0	0	3	0	2	2	1	9
	8:15 AM	0	0	0	0	0	0	0	2	1	1	0	0	4
	8:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	1	0	0	1	0	0	16	2	9	6	2	37
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	89%	11%	53%	35%	12%	
	APP/DEPART	1	/	3	1	/	12	18	/	16	17	/	6	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	1	0	0	1	0	0	10	1	6	5	2	26
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	91%	9%	46%	38%	15%	
	PEAK HR FACTOR		0.250			0.250			0.688			0.650		0.722
	APP/DEPART	1	/	3	1	/	8	11	/	10	13	/	5	0
PM	04:00 PM	0	0	0	0	2	0	0	2	0	2	2	0	8
	4:15 PM	0	0	0	0	1	0	0	3	0	2	1	0	7
	4:30 PM	0	0	0	0	0	0	0	2	0	2	0	0	4
	4:45 PM	0	0	1	0	0	0	1	1	0	2	0	0	5
	5:00 PM	0	0	0	1	0	0	0	3	0	3	0	0	7
	5:15 PM	0	0	0	0	0	0	0	2	0	2	0	0	4
	5:30 PM	0	0	0	0	0	0	0	2	1	1	0	0	4
	5:45 PM	0	0	0	0	0	0	0	3	0	2	0	0	5
	VOLUMES	0	0	1	1	3	0	1	18	1	16	3	0	44
	APPROACH %	0%	0%	100%	25%	75%	0%	5%	90%	5%	84%	16%	0%	
	APP/DEPART	1	/	1	4	/	20	20	/	20	19	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	1	0	3	0	1	8	0	8	3	0	24
	APPROACH %	0%	0%	100%	0%	100%	0%	11%	89%	0%	73%	27%	0%	
	PEAK HR FACTOR		0.250			0.375			0.750			0.688		0.750
	APP/DEPART	1	/	1	3	/	11	9	/	9	11	/	3	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
					0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0
					0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
					0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, May 25, 23

LOCATION: Perris
NORTH & SOUTH: Perris
EAST & WEST: Ramona

PROJECT #: SC4061
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

		NORTHBOUND Perris			SOUTHBOUND Perris			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	55	125	23	22	45	46	60	132	14	18	240	32	812	0	1	1	0	2	15	32	10	2
	7:15 AM	46	151	16	22	87	45	70	149	10	16	250	26	888	0	2	1	1	4	14	21	6	2
	7:30 AM	46	172	15	26	72	43	81	160	13	10	235	27	900	0	2	3	0	5	12	14	7	6
	7:45 AM	35	108	15	33	80	52	93	132	27	33	241	27	876	0	0	2	1	3	9	30	17	0
	8:00 AM	21	92	18	40	71	71	75	159	23	26	226	29	851	0	2	0	2	4	15	24	13	9
	8:15 AM	21	77	17	28	85	58	59	128	28	27	216	28	772	0	1	2	1	4	16	23	14	3
	8:30 AM	34	66	15	27	63	48	61	122	21	25	246	17	745	1	1	0	1	3	7	24	10	2
	8:45 AM	30	61	13	26	81	26	36	118	31	30	206	16	674	0	1	2	0	3	7	14	16	3
	VOLUMES	288	852	132	224	584	389	535	1,100	167	185	1,860	202	6,518	1	10	11	6	28	95	182	93	27
	APPROACH %	23%	67%	10%	19%	49%	32%	30%	61%	9%	8%	83%	9%										
	APP/DEPART	1,272	/	1,588	1,197	/	931	1,802	/	1,452	2,247	/	2,547	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	148	523	64	121	310	211	319	600	73	85	952	109	3,515						50	89	43	17
	APPROACH %	20%	71%	9%	19%	48%	33%	32%	60%	7%	7%	83%	10%										
	PEAK HR FACTOR		0.789			0.882			0.965			0.952		0.976									
	APP/DEPART	735	/	951	642	/	464	992	/	783	1,146	/	1,317	0									
PM	04:00 PM	40	133	24	55	151	62	102	232	31	24	185	33	1,072	1	4	4	2	11	12	25	19	5
	4:15 PM	33	95	27	70	126	44	72	230	22	26	187	18	950	0	3	4	2	9	13	25	12	6
	4:30 PM	38	117	29	85	171	54	76	255	32	31	177	22	1,087	0	8	4	2	14	14	32	18	4
	4:45 PM	36	88	25	62	159	51	53	238	39	48	170	24	993	1	0	2	3	6	13	35	23	2
	5:00 PM	31	96	18	60	116	61	58	269	36	29	191	18	983	0	3	3	3	9	9	14	21	1
	5:15 PM	33	82	26	54	119	57	63	230	19	30	200	25	938	0	2	6	3	11	14	21	7	8
	5:30 PM	26	118	20	61	157	58	62	261	36	28	167	14	1,008	0	0	3	1	4	11	32	19	2
	5:45 PM	42	86	17	55	116	48	65	227	44	19	179	28	926	0	2	6	0	8	7	16	39	6
	VOLUMES	279	815	186	502	1,115	435	551	1,942	259	235	1,456	182	7,957	2	22	32	16	72	93	200	158	34
	APPROACH %	22%	64%	15%	24%	54%	21%	20%	71%	9%	13%	78%	10%										
	APP/DEPART	1,280	/	1,538	2,052	/	1,595	2,752	/	2,624	1,873	/	2,200	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	147	433	105	272	607	211	303	955	124	129	719	97	4,102						52	117	72	17
	APPROACH %	21%	63%	15%	25%	56%	19%	22%	69%	9%	14%	76%	10%										
	PEAK HR FACTOR		0.869			0.879			0.947			0.976		0.943									
	APP/DEPART	685	/	834	1,090	/	853	1,382	/	1,326	945	/	1,089	0									

Perris

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

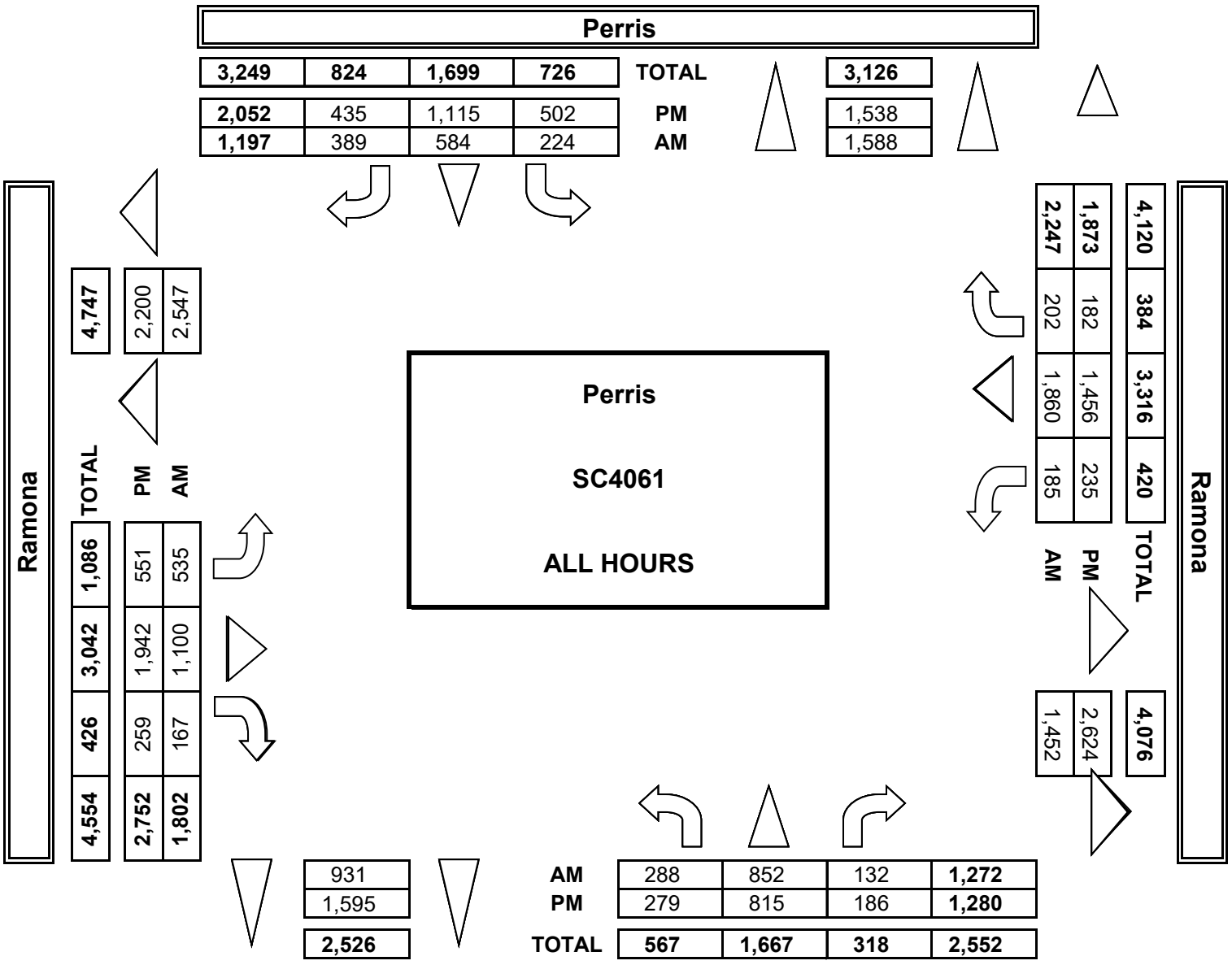
SOUTH SIDE

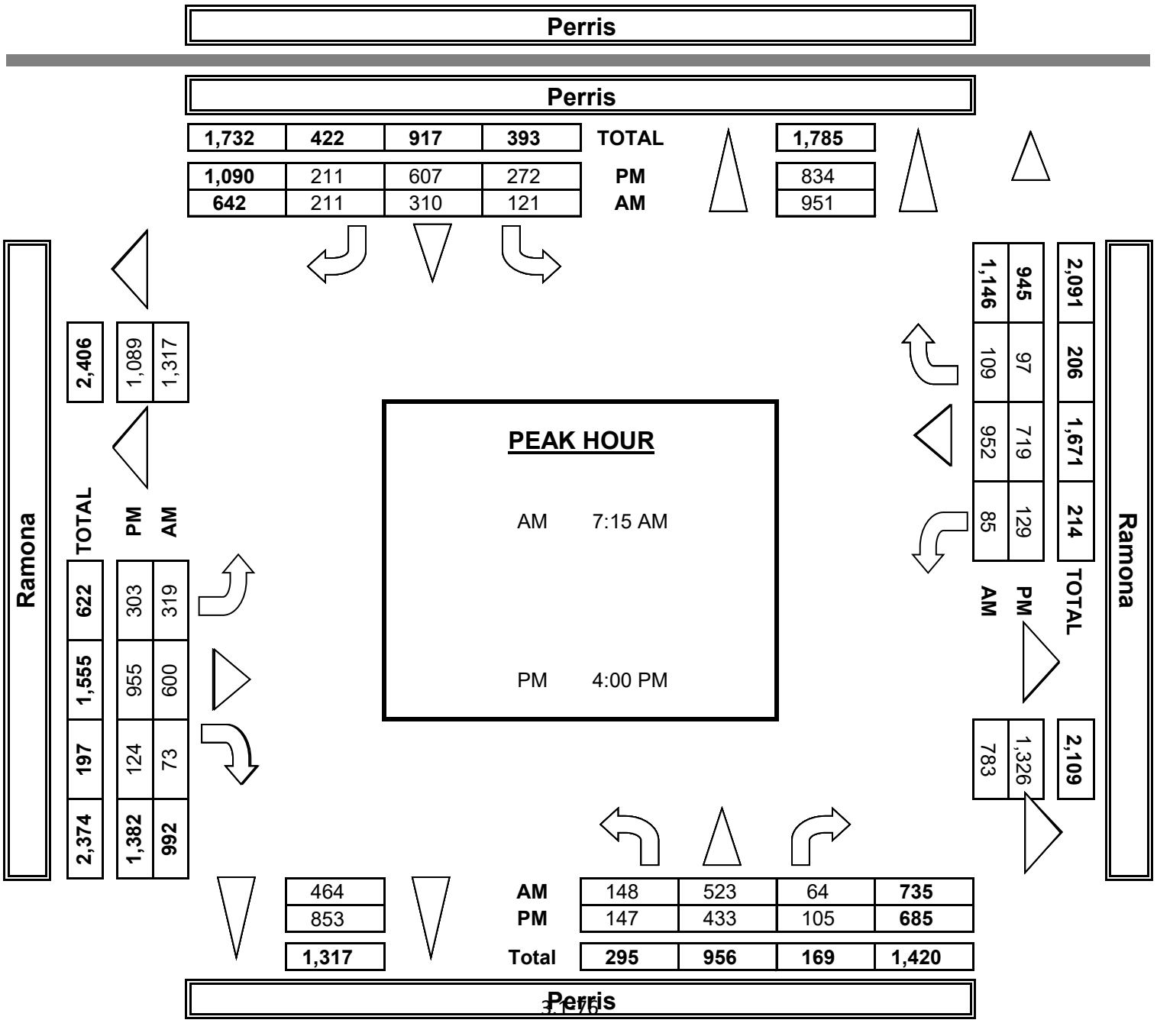
Perris

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	7:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:30 AM	0	1	0	2	3	0	1	0	2	3	0	0	0	0	0
	7:45 AM	0	2	0	3	5	0	2	0	3	5	0	0	0	0	0
	8:00 AM	0	1	3	2	6	0	1	3	2	6	0	0	0	0	0
	8:15 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:30 AM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	8:45 AM	1	0	1	1	3	0	0	1	1	2	1	0	0	0	1
	TOTAL	4	4	5	9	22	2	4	5	9	20	2	0	0	0	2
PM	4:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:15 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:30 PM	4	0	0	0	4	3	0	0	0	3	1	0	0	0	1
	4:45 PM	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
	5:00 PM	0	2	0	1	3	0	2	0	0	2	0	0	0	1	1
	5:15 PM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	5:30 PM	0	2	2	0	4	0	2	2	0	4	0	0	0	0	0
	5:45 PM	0	3	2	0	5	0	3	2	0	5	0	0	0	0	0
	TOTAL	7	7	5	3	22	4	7	5	2	18	3	0	0	1	4

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	Perris
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Perris			SOUTHBOUNI Perris	
		NL	NT	NR	SL	ST
	LANES:	2	2	1	2	2
AM	7:00 AM	64	130	23	27	49
	7:15 AM	52	159	17	23	95
	7:30 AM	52	184	15	28	78
	7:45 AM	43	110	16	34	85
	8:00 AM	25	97	24	44	72
	8:15 AM	27	84	18	31	88
	8:30 AM	38	75	16	31	76
	8:45 AM	35	65	15	28	87
	VOLUMES	334	902	142	244	628
	APPROACH %	24%	65%	10%	19%	48%
	APP/DEPART	1,378	/	1,736	1,304	/
	BEGIN PEAK HR		7:15 AM			
	VOLUMES	171	549	71	129	329
	APPROACH %	22%	69%	9%	19%	48%
	PEAK HR FACTOR		0.791			0.899
	APP/DEPART	791	/	1,027	692	/
PM	04:00 PM	42	146	25	55	163
	4:15 PM	41	101	28	72	135
	4:30 PM	46	125	32	88	173
	4:45 PM	39	90	28	64	163
	5:00 PM	37	102	19	63	119
	5:15 PM	37	85	27	58	125
	5:30 PM	27	120	20	64	160
	5:45 PM	47	88	18	56	121
	VOLUMES	314	856	195	518	1,158
	APPROACH %	23%	63%	14%	24%	54%

APP/DEPART	1,364	/	1,660	2,149	/	
BEGIN PEAK HR		4:00 PM				
VOLUMES	167	461	112	278	634	
APPROACH %	23%	62%	15%	24%	55%	
PEAK HR FACTOR		0.871			0.895	
APP/DEPART	739	/	902	1,145	/	

Ramona WEST SIDE

RNING MOVEMENT COUNTS

LC. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 6
CONTROL: SIGNAL

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ramona			WESTBOUND Ramona			
SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
54	71	157	17	18	253	37	898
51	81	163	11	17	262	29	956
49	93	177	15	10	254	28	981
59	106	141	34	34	256	28	944
77	82	179	25	27	243	32	925
62	64	148	30	27	228	29	833
50	76	131	26	26	257	17	815
33	44	136	40	32	229	20	762
433	615	1,231	196	190	1,980	219	7,112
33%	30%	60%	10%	8%	83%	9%	
1,013	2,042	/	1,617	2,388	/	2,746	0
235	361	660	84	87	1,015	117	3,805
34%	33%	60%	8%	7%	83%	10%	
		0.967			0.959		0.970
500	1,105	/	859	1,218	/	1,420	0
68	114	242	37	25	204	38	1,157
49	82	238	27	27	200	19	1,016
60	81	265	36	31	185	24	1,142
57	59	259	42	50	180	26	1,054
69	65	281	39	30	200	20	1,041
60	70	236	21	31	207	25	981
59	66	275	40	28	175	14	1,045
54	73	237	47	19	184	32	974
474	609	2,031	287	241	1,533	196	8,408
22%	21%	69%	10%	12%	78%	10%	

1,685	2,926	/	2,743	1,970	/	2,320	0
233	336	1,003	141	133	768	106	4,369
20%	23%	68%	9%	13%	76%	10%	
		0.943			0.944		0.944
907	1,479	/	1,393	1,006	/	1,168	0

Perris

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

Perris

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Perris	LOCATION #:	6
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

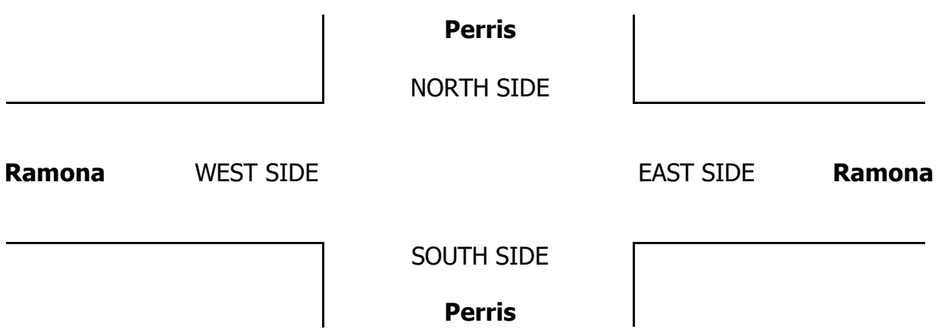
	NORTHBOUND Perris			SOUTHBOUND Perris			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM 7:00 AM	45	118	23	17	42	35	51	108	10	18	221	28	716
7:15 AM	37	139	15	21	78	41	60	133	9	15	235	23	806
7:30 AM	40	155	15	25	64	38	67	144	12	10	211	25	806
7:45 AM	28	104	13	32	73	43	78	124	19	32	221	25	792
8:00 AM	15	86	13	35	69	65	66	137	21	25	209	24	765
8:15 AM	16	68	16	26	82	52	54	113	25	27	202	26	707
8:30 AM	28	56	14	24	51	45	49	113	15	24	233	17	669
8:45 AM	24	57	12	24	74	22	30	101	24	27	182	12	589
VOLUMES	233	783	121	204	533	341	455	973	135	178	1,714	180	5,850
APPROACH %	20%	69%	11%	19%	49%	32%	29%	62%	9%	9%	83%	9%	
APP/DEPART	1,137	/	1,419	1,078	/	842	1,563	/	1,293	2,072	/	2,296	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	120	484	56	107	284	187	266	538	61	79	876	97	3,169
APPROACH %	18%	73%	8%	18%	49%	32%	31%	62%	7%	7%	83%	9%	
PEAK HR FACTOR		0.786			0.864			0.971			0.949		0.983
APP/DEPART	660	/	853	584	/	424	870	/	704	1,055	/	1,188	0
PM 04:00 PM	38	120	23	55	138	57	85	219	27	22	168	28	980
4:15 PM	25	87	26	66	115	37	62	221	17	25	176	17	874
4:30 PM	33	109	27	80	168	46	68	249	29	31	169	19	1,028
4:45 PM	32	85	22	60	153	43	49	212	34	45	161	23	919
5:00 PM	27	88	16	57	112	54	51	255	33	27	179	16	915
5:15 PM	30	79	25	52	112	53	55	223	18	28	191	25	891
5:30 PM	25	114	20	59	153	57	59	252	29	28	160	14	970
5:45 PM	39	85	16	54	110	42	59	218	41	19	175	24	882
VOLUMES	249	767	175	483	1,061	389	488	1,849	228	225	1,379	166	7,459
APPROACH %	21%	64%	15%	25%	55%	20%	19%	72%	9%	13%	78%	9%	
APP/DEPART	1,191	/	1,410	1,933	/	1,502	2,565	/	2,500	1,770	/	2,047	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	126	401	98	246	574	183	250	901	107	116	674	87	3,801
APPROACH %	20%	64%	16%	24%	56%	18%	20%	71%	8%	13%	76%	10%	
PEAK HR FACTOR		0.866			0.866			0.919			0.965		0.924
APP/DEPART	627	/	753	1,018	/	799	1,272	/	1,252	884	/	997	0

U-TURNS

NB	SB	EB	WB	TTL
0	1	0	0	1
0	2	1	0	3
0	2	2	0	4
0	0	2	1	3
0	2	0	2	4
0	1	2	1	4
1	1	0	1	3
0	1	2	0	3
1	10	9	5	25
2	21	32	14	69

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
15	26	6	1
13	19	5	2
12	12	6	6
8	27	12	0
11	23	11	8
15	21	12	3
6	22	7	2
7	11	12	3
87	161	71	25
44	81	34	16
11	24	17	5
13	20	9	6
13	27	16	3
12	29	20	2
8	14	20	1
13	20	7	8
11	31	15	2
6	15	37	5
87	180	141	32
49	100	62	16



INTERSECTION TURNING MOVEMENT COUNTS

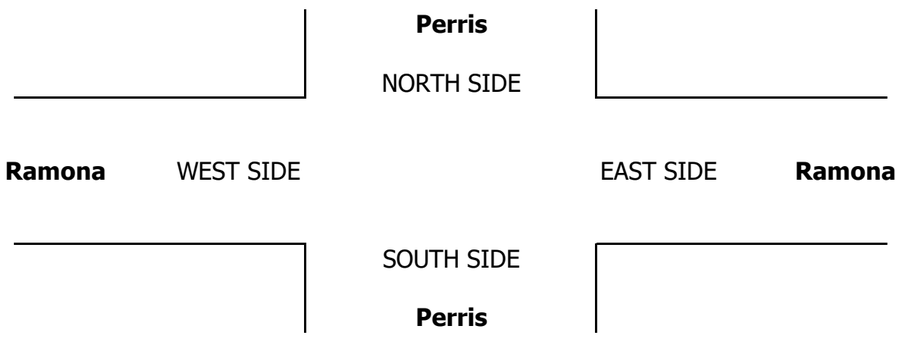
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Perris	LOCATION #:	6
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

	NORTHBOUND Perris			SOUTHBOUND Perris			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM 7:00 AM	7	6	0	2	1	8	3	12	2	0	15	1	57
7:15 AM	6	9	1	0	7	1	5	11	0	1	11	1	53
7:30 AM	3	11	0	0	5	2	9	8	0	0	16	2	56
7:45 AM	3	4	2	1	6	7	10	4	5	1	16	2	61
8:00 AM	4	4	3	4	2	3	6	14	1	1	8	4	54
8:15 AM	3	5	1	1	1	5	2	4	3	0	10	2	37
8:30 AM	5	5	1	1	3	3	5	6	4	0	9	0	42
8:45 AM	4	2	0	1	2	0	2	9	3	2	13	3	41
VOLUMES	35	46	8	10	27	29	42	68	18	5	98	15	401
APPROACH %	39%	52%	9%	15%	41%	44%	33%	53%	14%	4%	83%	13%	
APP/DEPART	89	/	102	66	/	49	128	/	87	118	/	163	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	16	28	6	5	20	13	29	37	6	2	51	9	224
APPROACH %	32%	56%	12%	13%	53%	34%	40%	51%	8%	3%	81%	14%	
PEAK HR FACTOR		0.781			0.679			0.869			0.829		0.918
APP/DEPART	50	/	66	38	/	28	73	/	49	63	/	81	0
PM 04:00 PM	1	8	1	0	8	2	14	11	1	2	6	3	57
4:15 PM	5	7	1	4	8	4	6	6	2	1	5	1	50
4:30 PM	1	5	1	5	2	7	6	1	1	0	4	3	36
4:45 PM	2	3	2	1	4	5	1	18	5	2	5	0	48
5:00 PM	1	6	2	2	3	3	3	11	0	2	9	1	43
5:15 PM	0	2	1	0	5	2	5	4	0	2	6	0	27
5:30 PM	1	4	0	1	3	1	0	3	6	0	3	0	22
5:45 PM	0	0	1	1	4	3	2	3	1	0	2	2	19
VOLUMES	11	35	9	14	37	27	37	57	16	9	40	10	302
APPROACH %	20%	64%	16%	18%	47%	35%	34%	52%	15%	15%	68%	17%	
APP/DEPART	55	/	83	78	/	60	110	/	81	59	/	78	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	9	23	5	10	22	18	27	36	9	3	20	7	191
APPROACH %	24%	62%	14%	20%	44%	36%	38%	50%	13%	9%	63%	22%	
PEAK HR FACTOR		0.712			0.781			0.692			0.727		0.838
APP/DEPART	37	/	57	50	/	34	72	/	53	32	/	47	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
					0	0	0	0
0	0	0	0	0	0	5	2	0
0	0	0	1	1	1	0	0	0
0	0	1	0	1	0	1	0	0
0	0	0	0	0	1	3	3	0
0	0	0	0	0	2	1	1	0
0	0	0	0	0	1	2	2	0
0	0	0	0	0	1	2	3	0
0	0	0	0	0	0	0	3	0
0	0	1	1	2	6	14	14	0
					4	5	4	0
0	0	0	1	1	1	0	1	0
0	0	0	0	0	0	3	1	0
0	0	0	0	0	0	5	1	1
0	0	0	1	1	1	4	3	0
0	1	0	0	1	1	0	0	0
0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	1	4	0
0	0	0	0	0	1	1	0	0
0	1	0	2	3	5	14	10	1
					2	12	6	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Perris	LOCATION #:	6
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 3:	NOTES:
3-AXLE TRUCKS	

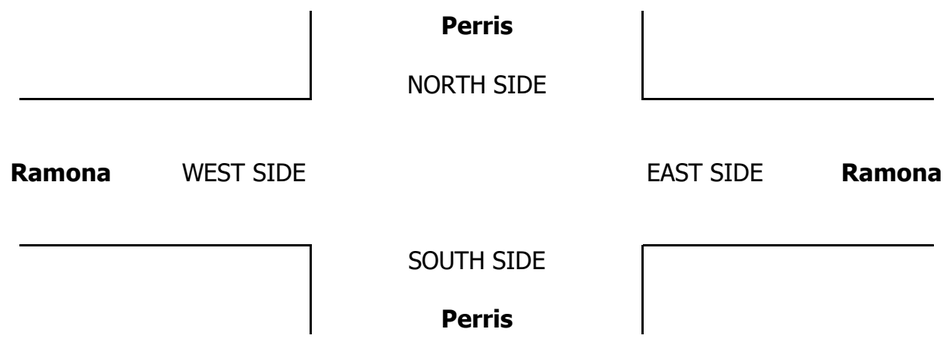
AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Perris			SOUTHBOUND Perris			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM	7:00 AM	0	0	0	2	0	1	2	4	1	0	3	2	15
	7:15 AM	2	1	0	0	0	1	2	2	0	0	2	1	11
	7:30 AM	1	5	0	0	1	0	2	2	0	0	3	0	14
	7:45 AM	0	0	0	0	0	1	0	1	0	0	1	0	3
	8:00 AM	1	1	0	0	0	0	1	2	0	0	2	1	8
	8:15 AM	0	2	0	0	1	1	1	3	0	0	1	0	9
	8:30 AM	0	2	0	1	2	0	2	0	0	0	2	0	9
	8:45 AM	1	0	0	1	2	1	1	2	1	1	5	0	15
	VOLUMES	5	11	0	4	6	5	11	16	2	1	19	4	84
	APPROACH %	31%	69%	0%	27%	40%	33%	38%	55%	7%	4%	79%	17%	
	APP/DEPART	16	/	26	15	/	9	29	/	20	24	/	29	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	4	7	0	0	1	2	5	7	0	0	8	2	36
	APPROACH %	36%	64%	0%	0%	33%	67%	42%	58%	0%	0%	80%	20%	
	PEAK HR FACTOR		0.458			0.750			0.750			0.833		0.643
	APP/DEPART	11	/	14	3	/	1	12	/	7	10	/	14	0
PM	04:00 PM	0	0	0	0	2	1	0	0	0	0	4	1	8
	4:15 PM	0	0	0	0	1	1	0	0	1	0	1	0	4
	4:30 PM	0	1	0	0	1	0	1	1	0	0	2	0	6
	4:45 PM	1	0	0	1	2	2	0	2	0	1	0	0	9
	5:00 PM	0	1	0	0	0	1	2	0	0	0	2	1	7
	5:15 PM	0	0	0	0	0	0	1	1	0	0	2	0	4
	5:30 PM	0	0	0	0	1	0	1	0	0	0	2	0	4
	5:45 PM	0	0	0	0	1	1	0	4	0	0	0	1	7
	VOLUMES	1	2	0	1	8	6	5	8	1	1	13	3	49
	APPROACH %	33%	67%	0%	7%	53%	40%	36%	57%	7%	6%	76%	18%	
	APP/DEPART	3	/	10	15	/	10	14	/	9	17	/	20	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	1	0	1	6	4	1	3	1	1	7	1	27
	APPROACH %	50%	50%	0%	9%	55%	36%	20%	60%	20%	11%	78%	11%	
	PEAK HR FACTOR		0.500			0.550			0.625			0.450		0.750
	APP/DEPART	2	/	3	11	/	8	5	/	4	9	/	12	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR			
NRR	SRR	ERR	WRR
0	0	0	0
0	1	1	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	1	1	0
0	2	2	2
0	0	0	1
0	1	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	2	1	0
0	2	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Perris	LOCATION #:	6
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

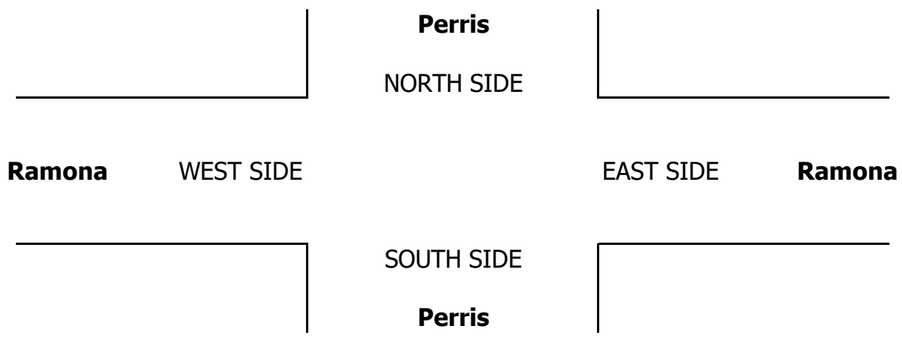
		NORTHBOUND Perris			SOUTHBOUND Perris			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM	7:00 AM	2	1	0	1	1	1	3	7	0	0	1	1	18
	7:15 AM	0	0	0	0	2	2	3	3	0	0	2	0	12
	7:30 AM	1	0	0	1	0	2	2	5	1	0	3	0	15
	7:45 AM	2	0	0	0	1	1	3	3	1	0	3	0	14
	8:00 AM	0	1	2	1	0	1	1	5	0	0	4	0	15
	8:15 AM	2	0	0	1	0	0	1	7	0	0	3	0	14
	8:30 AM	0	1	0	1	2	0	5	3	1	0	2	0	15
	8:45 AM	1	1	1	0	0	3	3	5	3	0	5	1	23
	VOLUMES	8	4	3	5	6	10	21	38	6	0	23	2	126
	APPROACH %	53%	27%	20%	24%	29%	48%	32%	58%	9%	0%	92%	8%	
	APP/DEPART	15	/	26	21	/	12	65	/	46	25	/	42	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	3	1	2	2	3	6	9	16	2	0	12	0	56
	APPROACH %	50%	17%	33%	18%	27%	55%	33%	59%	7%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.688			0.844			0.750		0.933
	APP/DEPART	6	/	10	11	/	5	27	/	20	12	/	21	0
PM	04:00 PM	0	4	0	0	3	2	2	2	2	0	5	1	21
	4:15 PM	2	1	0	0	2	0	3	2	1	0	4	0	15
	4:30 PM	3	2	1	0	0	1	0	4	1	0	2	0	14
	4:45 PM	0	0	1	0	0	0	2	4	0	0	3	1	11
	5:00 PM	2	1	0	1	0	2	1	3	0	0	1	0	11
	5:15 PM	1	1	0	2	1	0	1	1	1	0	1	0	9
	5:30 PM	0	0	0	1	0	0	1	6	0	0	2	0	10
	5:45 PM	2	1	0	0	1	1	3	2	0	0	2	1	13
	VOLUMES	10	10	2	4	7	6	13	24	5	0	20	3	104
	APPROACH %	45%	45%	9%	24%	41%	35%	31%	57%	12%	0%	87%	13%	
	APP/DEPART	22	/	26	17	/	12	42	/	30	23	/	36	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	5	7	2	0	5	3	7	12	4	0	14	2	61
	APPROACH %	36%	50%	14%	0%	63%	38%	30%	52%	17%	0%	88%	13%	
	PEAK HR FACTOR		0.583			0.400			0.958			0.667		0.726
	APP/DEPART	14	/	16	8	/	9	23	/	14	16	/	22	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	2	0	0
0	0	1	0
0	0	1	0
2	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	2	0	0
2	4	2	0
2	2	2	0
0	0	1	0
0	0	1	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
1	0	2	1
1	0	2	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Perris	LOCATION #:	6
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Perris			SOUTHBOUND Perris			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Perris	LOCATION #:	6
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N

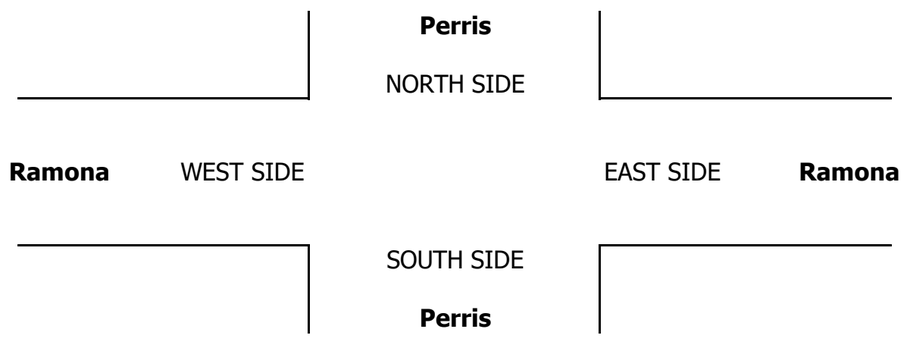
◄ W E ►

S ▼

		NORTHBOUND Perris			SOUTHBOUND Perris			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM	7:00 AM	1	0	0	0	1	1	1	0	1	0	0	0	5
	7:15 AM	1	2	0	1	0	0	0	0	1	0	0	1	6
	7:30 AM	1	1	0	0	2	1	1	1	0	0	2	0	9
	7:45 AM	2	0	0	0	0	0	2	0	2	0	0	0	6
	8:00 AM	1	0	0	0	0	2	1	1	1	0	3	0	9
	8:15 AM	0	2	0	0	1	0	1	1	0	0	0	0	5
	8:30 AM	1	2	0	0	5	0	0	0	1	1	0	0	10
	8:45 AM	0	1	0	0	3	0	0	1	0	0	1	0	6
	VOLUMES	7	8	0	1	12	4	6	4	6	1	6	1	56
	APPROACH %	47%	53%	0%	6%	71%	24%	38%	25%	38%	13%	75%	13%	
	APP/DEPART	15	/	15	17	/	19	16	/	5	8	/	17	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	5	3	0	1	2	3	4	2	4	0	5	1	30
	APPROACH %	63%	38%	0%	17%	33%	50%	40%	20%	40%	0%	83%	17%	
	PEAK HR FACTOR		0.667			0.500			0.625			0.500		0.833
	APP/DEPART	8	/	8	6	/	6	10	/	3	6	/	13	0
PM	04:00 PM	1	1	0	0	0	0	1	0	1	0	2	0	6
	4:15 PM	1	0	0	0	0	2	1	1	1	0	1	0	7
	4:30 PM	1	0	0	0	0	0	1	0	1	0	0	0	3
	4:45 PM	1	0	0	0	0	1	1	1	0	0	1	0	5
	5:00 PM	1	0	0	0	1	1	1	0	3	0	0	0	7
	5:15 PM	2	0	0	0	1	2	1	1	0	0	0	0	7
	5:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	2
	5:45 PM	1	0	0	0	0	1	1	0	2	0	0	0	5
	VOLUMES	8	1	0	0	2	7	8	3	9	0	4	0	42
	APPROACH %	89%	11%	0%	0%	22%	78%	40%	15%	45%	0%	100%	0%	
	APP/DEPART	9	/	9	9	/	11	20	/	3	4	/	19	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	4	1	0	0	0	3	4	2	3	0	4	0	21
	APPROACH %	80%	20%	0%	0%	0%	100%	44%	22%	33%	0%	100%	0%	
	PEAK HR FACTOR		0.625			0.375			0.750			0.500		0.750
	APP/DEPART	5	/	5	3	/	3	9	/	2	4	/	11	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR			
NRR	SRR	ERR	WRR
0	0	1	0
0	0	1	0
0	1	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	4	0
0	1	3	0
0	0	0	0
0	2	0	0
0	0	1	0
0	1	0	0
0	0	1	0
0	1	0	0
0	0	0	0
0	0	2	0
0	4	4	0
0	3	1	0



INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, May 25, 23

LOCATION: Perris
NORTH & SOUTH: Redlands
EAST & WEST: Ramona

PROJECT #: SC4061
LOCATION #: 7
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
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E ►
S ▼

	NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL
7:00 AM	8	27	31	21	3	0	9	175	12	13	304	117	720
7:15 AM	6	42	26	16	12	0	0	181	13	20	283	114	713
7:30 AM	11	45	28	16	14	3	5	180	4	23	294	118	741
7:45 AM	7	23	29	23	8	3	3	180	8	29	314	112	739
8:00 AM	8	16	30	22	9	2	4	210	12	23	265	52	653
8:15 AM	13	12	21	12	6	2	1	197	7	14	276	61	622
8:30 AM	7	13	13	8	5	2	4	168	10	22	282	33	567
8:45 AM	9	13	18	12	4	3	3	167	16	15	264	31	555
VOLUMES	69	191	196	130	61	15	29	1,458	82	159	2,282	638	5,310
APPROACH %	15%	42%	43%	63%	30%	7%	2%	93%	5%	5%	74%	21%	
APP/DEPART	456	/	857	206	/	298	1,569	/	1,788	3,079	/	2,367	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	32	137	114	76	37	6	17	716	37	85	1,195	461	2,913
APPROACH %	11%	48%	40%	64%	31%	5%	2%	93%	5%	5%	69%	26%	
PEAK HR FACTOR		0.842			0.875			0.982			0.957		0.983
APP/DEPART	283	/	614	119	/	157	770	/	908	1,741	/	1,234	0
04:00 PM	11	16	24	61	22	8	2	334	21	30	243	45	817
4:15 PM	10	8	21	55	26	8	3	302	16	23	238	48	758
4:30 PM	10	13	23	82	31	10	5	338	20	23	251	40	846
4:45 PM	8	22	23	84	35	6	2	362	17	20	221	35	835
5:00 PM	5	11	18	58	21	3	3	352	14	25	271	28	809
5:15 PM	6	13	18	61	17	2	2	345	14	25	241	25	769
5:30 PM	6	13	31	72	17	1	1	310	17	28	236	45	777
5:45 PM	10	13	22	59	10	2	2	349	22	12	218	37	756
VOLUMES	66	109	180	532	179	40	20	2,692	141	186	1,919	303	6,367
APPROACH %	19%	31%	51%	71%	24%	5%	1%	94%	5%	8%	80%	13%	
APP/DEPART	355	/	426	751	/	499	2,853	/	3,411	2,408	/	2,031	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	29	59	82	285	104	21	12	1,397	65	93	984	128	3,259
APPROACH %	17%	35%	48%	70%	25%	5%	1%	95%	4%	8%	82%	11%	
PEAK HR FACTOR		0.802			0.820			0.967			0.930		0.963
APP/DEPART	170	/	197	410	/	257	1,474	/	1,769	1,205	/	1,036	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	1	1
0	0	0	1	1
0	0	1	0	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	4	5
0	0	1	1	2
0	0	1	0	1
0	0	1	1	2
0	0	0	1	1
0	0	1	3	4
0	0	0	0	0
0	0	0	0	0
0	0	2	1	3
0	0	6	7	13

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
10	0	2	22
5	0	3	36
10	3	2	29
9	2	3	36
10	0	5	24
6	0	1	12
3	1	5	8
10	2	8	10
63	8	29	177
34	5	10	123
9	5	7	11
11	5	9	18
11	4	8	12
10	2	9	12
11	2	10	12
8	1	7	14
16	0	9	15
11	1	10	13
87	20	69	107
40	9	34	50

Redlands

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

Redlands

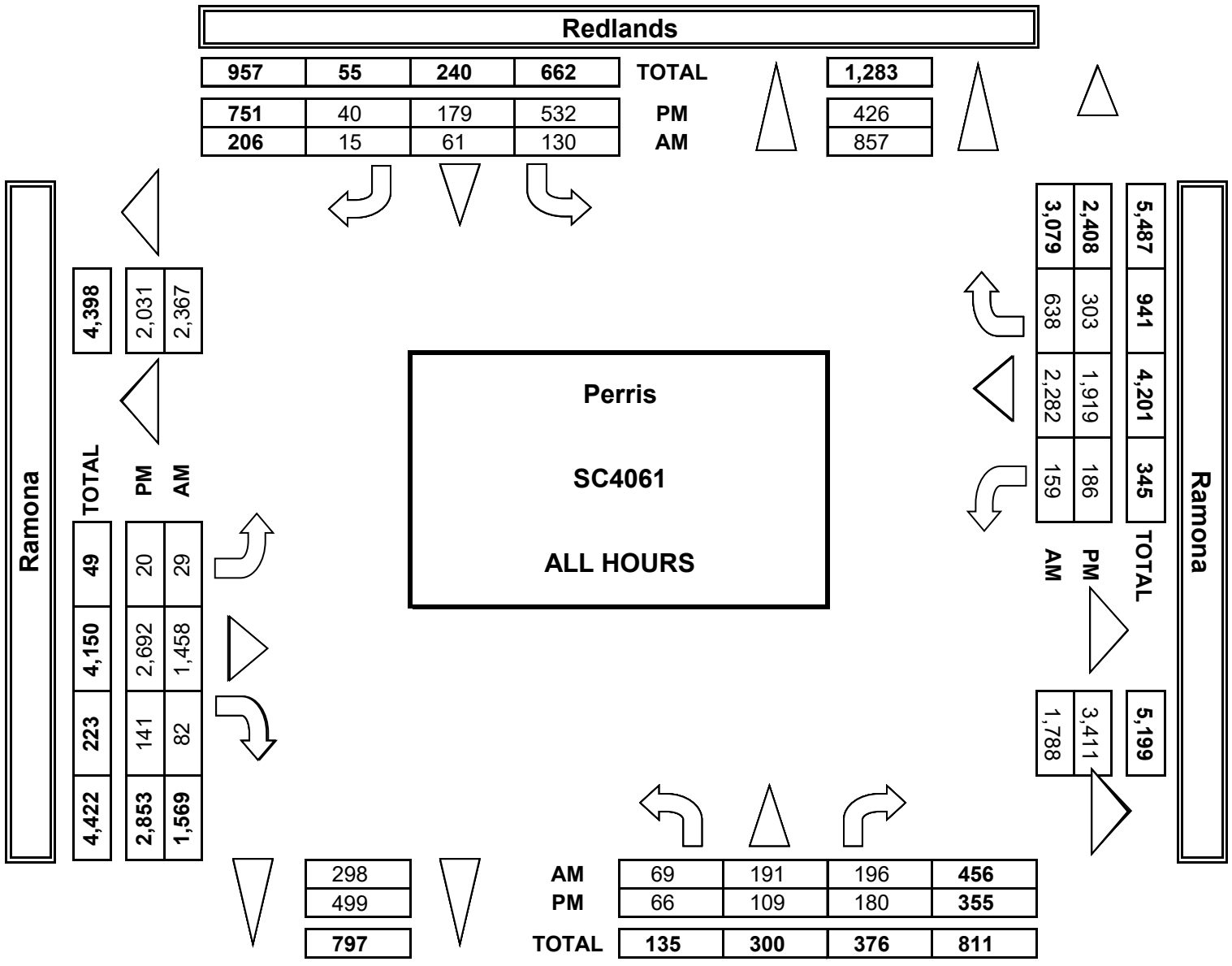
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	1	0	2	0	3
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	3	0	3
	8:00 AM	1	0	1	0	2
	8:15 AM	0	0	1	0	1
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	3	0	3
	TOTAL	2	0	10	0	12
PM	4:00 PM	0	0	1	0	1
	4:15 PM	2	0	3	1	6
	4:30 PM	0	1	6	0	7
	4:45 PM	0	0	0	0	0
	5:00 PM	1	0	2	0	3
	5:15 PM	3	1	0	0	4
	5:30 PM	1	0	2	0	3
	5:45 PM	1	0	3	0	4
	TOTAL	8	2	17	1	28

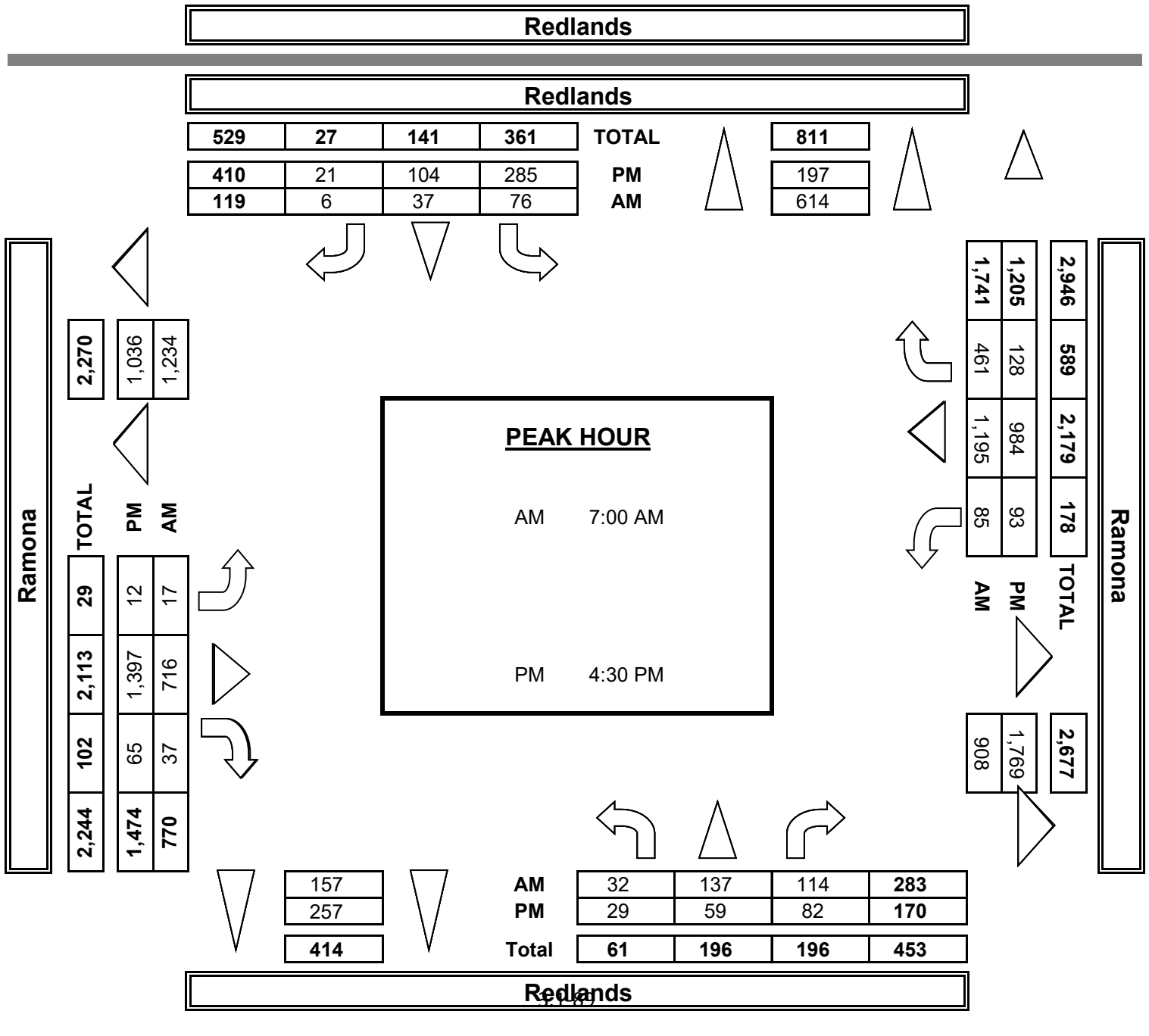
		PEDESTRIAN CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	1	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	2	0	2
	8:00 AM	1	0	1	0	2
	8:15 AM	0	0	1	0	1
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	2	0	2
	TOTAL	1	0	7	0	8
PM	4:00 PM	0	0	1	0	1
	4:15 PM	1	0	0	1	2
	4:30 PM	0	0	3	0	3
	4:45 PM	0	0	0	0	0
	5:00 PM	1	0	1	0	2
	5:15 PM	1	0	0	0	1
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	3	0	5	1	9

		BICYCLE CROSSINGS				
		ES	WS	SS	NS	TOTAL
AM	7:00 AM	1	0	1	0	2
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	1	0	1
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	1	0	1
	TOTAL	1	0	3	0	4
PM	4:00 PM	0	0	0	0	0
	4:15 PM	1	0	3	0	4
	4:30 PM	0	1	3	0	4
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	1	0	1
	5:15 PM	2	1	0	0	3
	5:30 PM	1	0	2	0	3
	5:45 PM	1	0	3	0	4
	TOTAL	5	2	12	0	19

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	Redlands
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Redlands			SOUTHBOUNI Redlands	
		NL	NT	NR	SL	ST
	LANES:	1	1	0	1	1
AM	7:00 AM	9	27	32	26	5
	7:15 AM	6	43	27	19	21
	7:30 AM	11	46	29	17	15
	7:45 AM	7	23	34	26	8
	8:00 AM	8	21	30	27	11
	8:15 AM	16	13	23	17	9
	8:30 AM	7	14	15	11	9
	8:45 AM	9	18	20	13	4
	VOLUMES	72	203	209	155	81
	APPROACH %	15%	42%	43%	60%	31%
	APP/DEPART	483	/	904	257	/
	BEGIN PEAK HR		7:00 AM			
	VOLUMES	33	139	121	87	49
	APPROACH %	11%	48%	41%	61%	34%
	PEAK HR FACTOR		0.857			0.913
	APP/DEPART	292	/	639	143	/
PM	04:00 PM	11	19	25	67	27
	4:15 PM	10	9	22	58	28
	4:30 PM	10	16	26	84	32
	4:45 PM	8	25	24	86	37
	5:00 PM	6	13	18	60	22
	5:15 PM	6	13	19	61	17
	5:30 PM	6	15	32	75	17
	5:45 PM	10	13	22	62	12
	VOLUMES	67	121	186	552	192
	APPROACH %	18%	32%	50%	70%	24%

	APP/DEPART	374	/	489	790	/
	BEGIN PEAK HR		4:30 PM			
	VOLUMES	30	66	86	291	108
	APPROACH %	16%	36%	47%	69%	26%
	PEAK HR FACTOR		0.808			0.804
	APP/DEPART	181	/	234	422	/

Ramona WEST SIDE

RNING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 7
CONTROL: SIGNAL

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ramona			WESTBOUND Ramona			
SR	EL	ET	ER	WL	WT	WR	TOTAL
1	1	3	1	1	3	1	
0	17	197	15	14	321	118	780
0	0	201	16	21	298	118	767
3	9	196	5	24	315	121	789
4	3	189	11	33	326	115	777
4	7	227	12	24	280	54	704
2	2	212	8	16	288	64	667
3	4	186	10	24	294	34	610
6	3	186	17	17	296	34	621
22	45	1,592	92	173	2,416	657	5,713
8%	3%	92%	5%	5%	74%	20%	
345	1,728	/	1,955	3,245	/	2,510	0
7	29	782	46	92	1,259	471	3,112
5%	3%	91%	5%	5%	69%	26%	
		0.937			0.961		0.987
186	856	/	989	1,822	/	1,299	0
10	2	347	21	32	266	54	879
10	4	314	16	25	251	53	798
10	6	357	21	25	265	47	897
8	2	384	17	23	228	47	887
3	5	360	14	26	286	34	845
2	2	359	14	25	249	25	791
1	3	317	20	30	249	46	810
2	2	361	23	12	221	38	777
46	26	2,798	146	196	2,014	343	6,684
6%	1%	94%	5%	8%	79%	13%	

533	2,969	/	3,536	2,552	/	2,126	0
23 5%	15 1%	1,459 95% 0.957	66 4%	98 8%	1,027 80% 0.926	153 12%	3,420 0.953
271	1,540	/	1,836	1,278	/	1,080	0

Redlands

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

Redlands

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

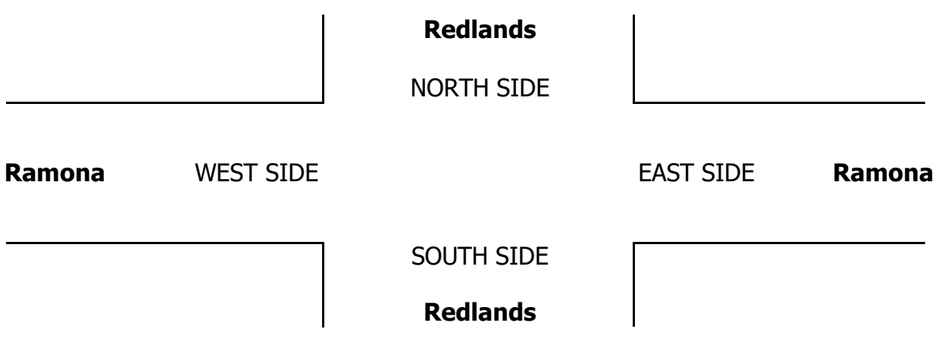
DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Redlands	LOCATION #:	7
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	7	27	30	17	2	0	2	154	9	12	278	115	653	0	0	0	1	1	10	0	2	21
	7:15 AM	6	41	25	13	7	0	0	156	11	18	263	108	648	0	0	0	1	1	5	0	3	31
	7:30 AM	11	44	27	15	13	3	3	165	3	22	268	116	690	0	0	1	0	1	10	3	2	29
	7:45 AM	7	23	26	20	8	2	3	170	6	27	296	108	696	0	0	0	0	0	8	1	2	34
	8:00 AM	8	13	30	18	7	1	2	189	12	22	249	50	601	0	0	0	1	1	10	0	5	24
	8:15 AM	11	11	18	7	4	2	0	184	6	11	260	57	571	0	0	0	0	0	5	0	0	12
	8:30 AM	7	12	12	6	3	1	4	151	10	20	267	32	525	0	0	0	1	1	3	1	5	8
	8:45 AM	9	9	17	11	4	1	3	148	15	12	231	29	489	0	0	0	0	0	9	0	8	9
	VOLUMES	66	180	185	107	48	10	17	1,317	72	144	2,112	615	4,873	0	0	1	4	5	60	5	27	168
	APPROACH %	15%	42%	43%	65%	29%	6%	1%	94%	5%	5%	74%	21%										
	APP/DEPART	431	/	811	165	/	260	1,406	/	1,613	2,871	/	2,189	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	31	135	108	65	30	5	7	645	29	77	1,105	447	2,687						33	4	9	115
	APPROACH %	11%	49%	39%	65%	30%	5%	1%	95%	4%	5%	68%	27%										
	PEAK HR FACTOR		0.835			0.806			0.953			0.946		0.965									
	APP/DEPART	274	/	589	100	/	136	682	/	820	1,631	/	1,142	0									
PM	04:00 PM	11	14	22	56	17	7	2	320	21	26	220	38	754	0	0	1	1	2	8	5	7	8
	4:15 PM	10	7	20	52	24	7	2	285	16	19	223	43	708	0	0	1	0	1	10	5	9	15
	4:30 PM	10	11	21	78	30	10	4	322	18	20	236	34	794	0	0	1	0	1	10	4	6	10
	4:45 PM	8	20	22	80	34	5	2	334	17	16	214	29	781	0	0	0	1	1	10	2	9	9
	5:00 PM	4	10	18	54	20	3	2	337	14	24	252	23	761	0	0	1	3	4	11	2	10	10
	5:15 PM	6	13	17	61	17	2	2	330	14	25	231	25	743	0	0	0	0	0	8	1	7	14
	5:30 PM	6	12	30	69	17	1	0	302	15	26	225	44	747	0	0	0	0	0	16	0	8	15
	5:45 PM	10	13	22	57	9	2	2	338	21	12	212	36	734	0	0	2	1	3	11	1	9	13
	VOLUMES	65	100	172	507	168	37	16	2,568	136	168	1,813	272	6,022	0	0	6	6	12	84	20	65	94
	APPROACH %	19%	30%	51%	71%	24%	5%	1%	94%	5%	7%	80%	12%										
	APP/DEPART	337	/	382	712	/	466	2,720	/	3,253	2,253	/	1,921	0									
	BEGIN PEAK HR		4:30 PM																				
	VOLUMES	28	54	78	273	101	20	8	1,323	63	81	933	111	3,079						39	9	32	43
	APPROACH %	18%	34%	49%	69%	26%	5%	1%	95%	5%	7%	83%	10%										
	PEAK HR FACTOR		0.800			0.828			0.989			0.944		0.969									
	APP/DEPART	160	/	173	394	/	245	1,396	/	1,678	1,129	/	983	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Redlands	LOCATION #:	7
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

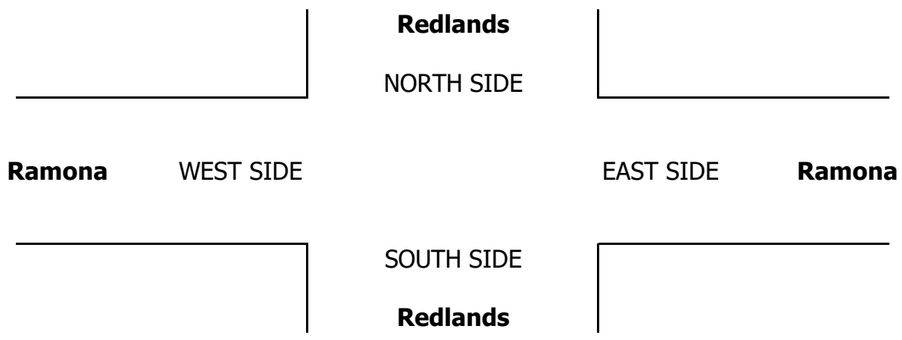
	NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL
7:00 AM	1	0	0	0	0	0	4	9	2	0	22	2	40
7:15 AM	0	0	1	1	1	0	0	17	1	2	13	5	41
7:30 AM	0	1	1	0	0	0	0	8	1	0	17	1	29
7:45 AM	0	0	1	1	0	0	0	7	1	0	16	2	28
8:00 AM	0	1	0	0	1	0	0	16	0	1	8	0	27
8:15 AM	1	1	2	1	1	0	0	6	1	2	13	2	30
8:30 AM	0	1	0	0	0	0	0	9	0	0	10	1	21
8:45 AM	0	1	0	0	0	1	0	11	1	2	19	0	35
VOLUMES	2	5	5	3	3	1	4	83	7	7	118	13	251
APPROACH %	17%	42%	42%	43%	43%	14%	4%	88%	7%	5%	86%	9%	
APP/DEPART	12	/	22	7	/	17	94	/	91	138	/	121	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	1	1	3	2	1	0	4	41	5	2	68	10	138
APPROACH %	20%	20%	60%	67%	33%	0%	8%	82%	10%	3%	85%	13%	
PEAK HR FACTOR		0.625			0.375			0.694			0.833		0.841
APP/DEPART	5	/	15	3	/	8	50	/	46	80	/	69	0
04:00 PM	0	1	2	3	2	0	0	10	0	4	11	3	36
4:15 PM	0	1	1	2	0	0	1	14	0	4	10	3	36
4:30 PM	0	1	1	4	0	0	0	9	2	3	10	0	30
4:45 PM	0	1	1	4	0	0	0	21	0	3	4	0	34
5:00 PM	1	0	0	4	1	0	0	14	0	1	13	2	36
5:15 PM	0	0	1	0	0	0	0	10	0	0	7	0	18
5:30 PM	0	0	0	2	0	0	0	6	1	1	4	1	15
5:45 PM	0	0	0	1	0	0	0	5	0	0	6	0	12
VOLUMES	1	4	6	20	3	0	1	89	3	16	65	9	217
APPROACH %	9%	36%	55%	87%	13%	0%	1%	96%	3%	18%	72%	10%	
APP/DEPART	11	/	14	23	/	21	93	/	116	90	/	66	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	1	2	3	12	1	0	0	54	2	6	34	2	118
APPROACH %	17%	33%	50%	92%	8%	0%	0%	96%	4%	14%	79%	5%	
PEAK HR FACTOR		0.750			0.650			0.667			0.672		0.819
APP/DEPART	6	/	4	13	/	9	56	/	70	43	/	35	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

RTOR

NRR	SRR	ERR	WRR
0	0	0	1
0	0	0	4
0	0	0	0
0	0	1	1
0	0	0	0
1	0	1	0
0	0	0	0
0	1	0	0
1	1	2	6
0	0	1	6
1	0	0	1
1	0	0	1
1	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
3	0	3	2
1	0	2	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Redlands	LOCATION #:	7
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

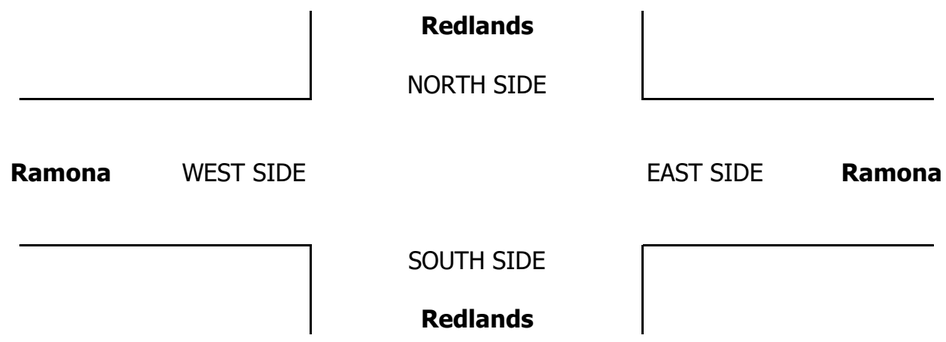
		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	1	3	0	0	0	6	0	0	2	0	12
	7:15 AM	0	0	0	2	0	0	0	4	0	0	5	1	12
	7:30 AM	0	0	0	1	0	0	0	2	0	1	4	0	8
	7:45 AM	0	0	0	1	0	1	0	0	0	0	0	2	4
	8:00 AM	0	0	0	1	1	0	1	1	0	0	2	0	6
	8:15 AM	0	0	0	3	0	0	1	2	0	0	1	1	8
	8:30 AM	0	0	0	0	0	1	0	2	0	0	2	0	5
	8:45 AM	0	2	0	1	0	0	0	2	0	0	5	1	11
	VOLUMES	0	2	1	12	1	2	2	19	0	1	21	5	66
	APPROACH %	0%	67%	33%	80%	7%	13%	10%	90%	0%	4%	78%	19%	
	APP/DEPART	3	/	9	15	/	2	21	/	32	27	/	23	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	1	7	0	1	0	12	0	1	11	3	36
	APPROACH %	0%	0%	100%	88%	0%	13%	0%	100%	0%	7%	73%	20%	
	PEAK HR FACTOR		0.250			0.667			0.500			0.625		0.750
	APP/DEPART	1	/	3	8	/	1	12	/	20	15	/	12	0
PM	04:00 PM	0	0	0	0	2	0	0	0	0	0	5	1	8
	4:15 PM	0	0	0	0	1	0	0	0	0	0	1	1	3
	4:30 PM	0	0	0	0	1	0	1	0	0	0	1	5	8
	4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	4	1	5
	5:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:30 PM	0	0	1	0	0	0	0	0	0	0	3	0	4
	5:45 PM	0	0	0	0	0	0	0	3	1	0	0	1	5
	VOLUMES	0	0	1	0	4	0	1	6	1	0	16	9	38
	APPROACH %	0%	0%	100%	0%	100%	0%	13%	75%	13%	0%	64%	36%	
	APP/DEPART	1	/	10	4	/	5	8	/	7	25	/	16	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	1	0	1	3	0	0	7	6	18
	APPROACH %	0%	0%	0%	0%	100%	0%	25%	75%	0%	0%	54%	46%	
	PEAK HR FACTOR		0.000			0.250			0.500			0.542		0.563
	APP/DEPART	0	/	7	1	/	1	4	/	3	13	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	1
0	0	0	0
0	1	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	1	0	3
0	1	0	2
0	0	0	1
0	0	0	2
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	5
0	0	0	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Redlands	LOCATION #:	7
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

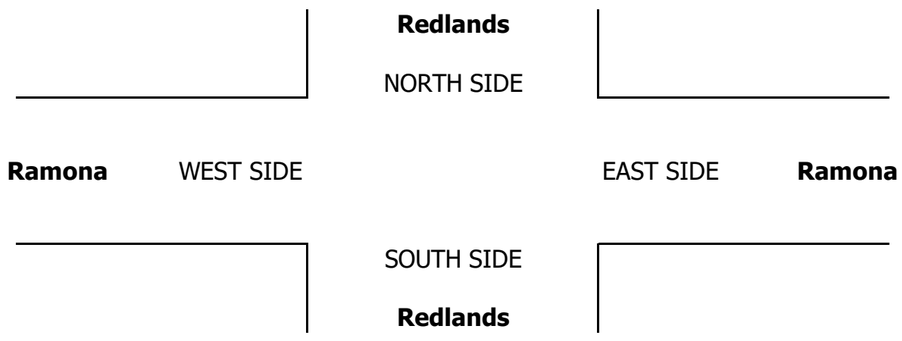
		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	0	1	1	0	3	5	1	0	2	0	13
	7:15 AM	0	0	0	0	4	0	0	3	1	0	1	0	9
	7:30 AM	0	0	0	0	0	0	2	5	0	0	3	1	11
	7:45 AM	0	0	2	0	0	0	0	2	1	2	2	0	9
	8:00 AM	0	2	0	1	0	1	1	4	0	0	3	0	12
	8:15 AM	1	0	0	0	1	0	0	5	0	0	2	0	9
	8:30 AM	0	0	1	1	2	0	0	5	0	0	2	0	11
	8:45 AM	0	1	1	0	0	1	0	5	0	0	8	1	17
	VOLUMES	1	3	4	3	8	2	6	34	3	2	23	2	91
	APPROACH %	13%	38%	50%	23%	62%	15%	14%	79%	7%	7%	85%	7%	
	APP/DEPART	8	/	11	13	/	13	43	/	41	27	/	26	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	2	1	5	0	5	15	3	2	8	1	42
	APPROACH %	0%	0%	100%	17%	83%	0%	22%	65%	13%	18%	73%	9%	
	PEAK HR FACTOR		0.250			0.375			0.639			0.688		0.808
	APP/DEPART	2	/	6	6	/	10	23	/	18	11	/	8	0
PM	04:00 PM	0	1	0	2	1	1	0	4	0	0	5	3	17
	4:15 PM	0	0	0	1	0	1	0	2	0	0	3	1	8
	4:30 PM	0	1	1	0	0	0	0	7	0	0	4	1	14
	4:45 PM	0	1	0	0	1	1	0	4	0	0	2	6	15
	5:00 PM	0	1	0	0	0	0	1	0	0	0	2	2	6
	5:15 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
	5:30 PM	0	1	0	1	0	0	1	2	1	0	4	0	10
	5:45 PM	0	0	0	1	1	0	0	3	0	0	0	0	5
	VOLUMES	0	5	1	5	3	3	2	26	1	0	21	13	80
	APPROACH %	0%	83%	17%	45%	27%	27%	7%	90%	3%	0%	62%	38%	
	APP/DEPART	6	/	20	11	/	4	29	/	32	34	/	24	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	3	1	0	1	1	1	15	0	0	9	9	40
	APPROACH %	0%	75%	25%	0%	50%	50%	6%	94%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.500			0.250			0.571			0.563		0.667
	APP/DEPART	4	/	13	2	/	1	16	/	16	18	/	10	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	1	0	0
2	1	0	0
1	0	0	0
0	0	0	1
0	0	0	1
0	0	0	0
0	0	0	3
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	6
0	0	0	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

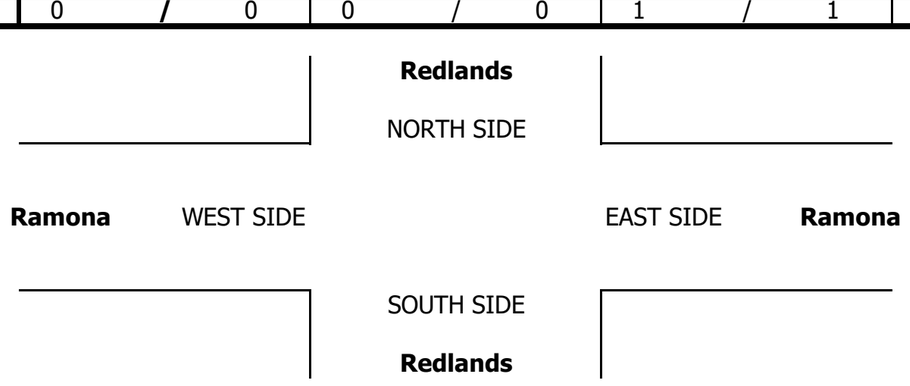
DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Redlands	LOCATION #:	7
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%										
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250									
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0									
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0									
	BEGIN PEAK HR		4:30 PM																				
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%										
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250									
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Redlands	LOCATION #:	7
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

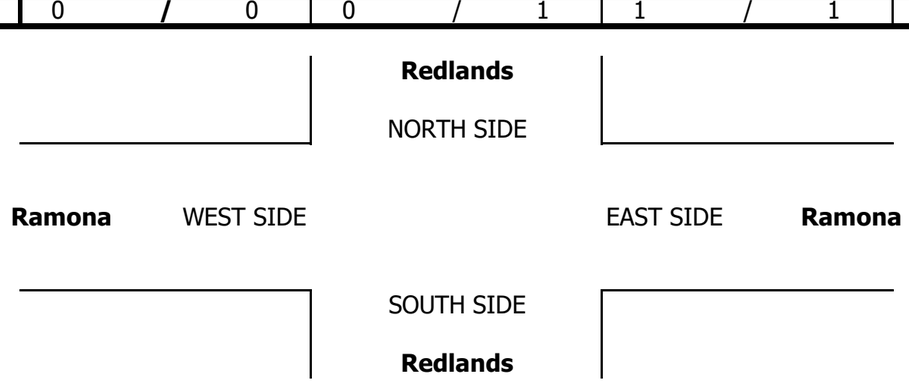
CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	7:15 AM	0	1	0	0	0	0	0	1	0	0	1	0	3
	7:30 AM	0	0	0	0	1	0	0	0	0	0	2	0	3
	7:45 AM	0	0	0	1	0	0	0	1	0	0	0	0	2
	8:00 AM	0	0	0	2	0	0	0	0	0	0	3	2	7
	8:15 AM	0	0	1	1	0	0	0	0	0	1	0	1	4
	8:30 AM	0	0	0	1	0	0	0	1	0	2	1	0	5
	8:45 AM	0	0	0	0	0	0	0	1	0	1	1	0	3
	VOLUMES	0	1	1	5	1	0	0	4	0	5	8	3	28
	APPROACH %	0%	50%	50%	83%	17%	0%	0%	100%	0%	31%	50%	19%	
	APP/DEPART	2	/	4	6	/	6	4	/	10	16	/	8	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	1	0	1	1	0	0	2	0	1	3	0	9
	APPROACH %	0%	100%	0%	50%	50%	0%	0%	100%	0%	25%	75%	0%	
	PEAK HR FACTOR		0.250			0.500			0.500			0.500		0.750
	APP/DEPART	1	/	1	2	/	2	2	/	3	4	/	3	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	4:15 PM	0	0	0	0	1	0	0	1	0	0	1	0	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	2	0	2	4	0	9
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	100%	0%	33%	67%	0%	
	APP/DEPART	0	/	0	1	/	3	2	/	2	6	/	4	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	1	1	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	50%	50%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.375
	APP/DEPART	0	/	0	0	/	1	1	/	1	2	/	1	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
					0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
					0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T050223

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, May 25, 23

LOCATION: Perris
NORTH & SOUTH: Evans
EAST & WEST: Ramona

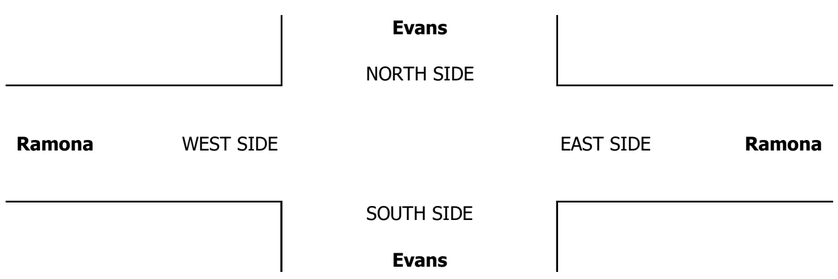
PROJECT #: SC4061
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

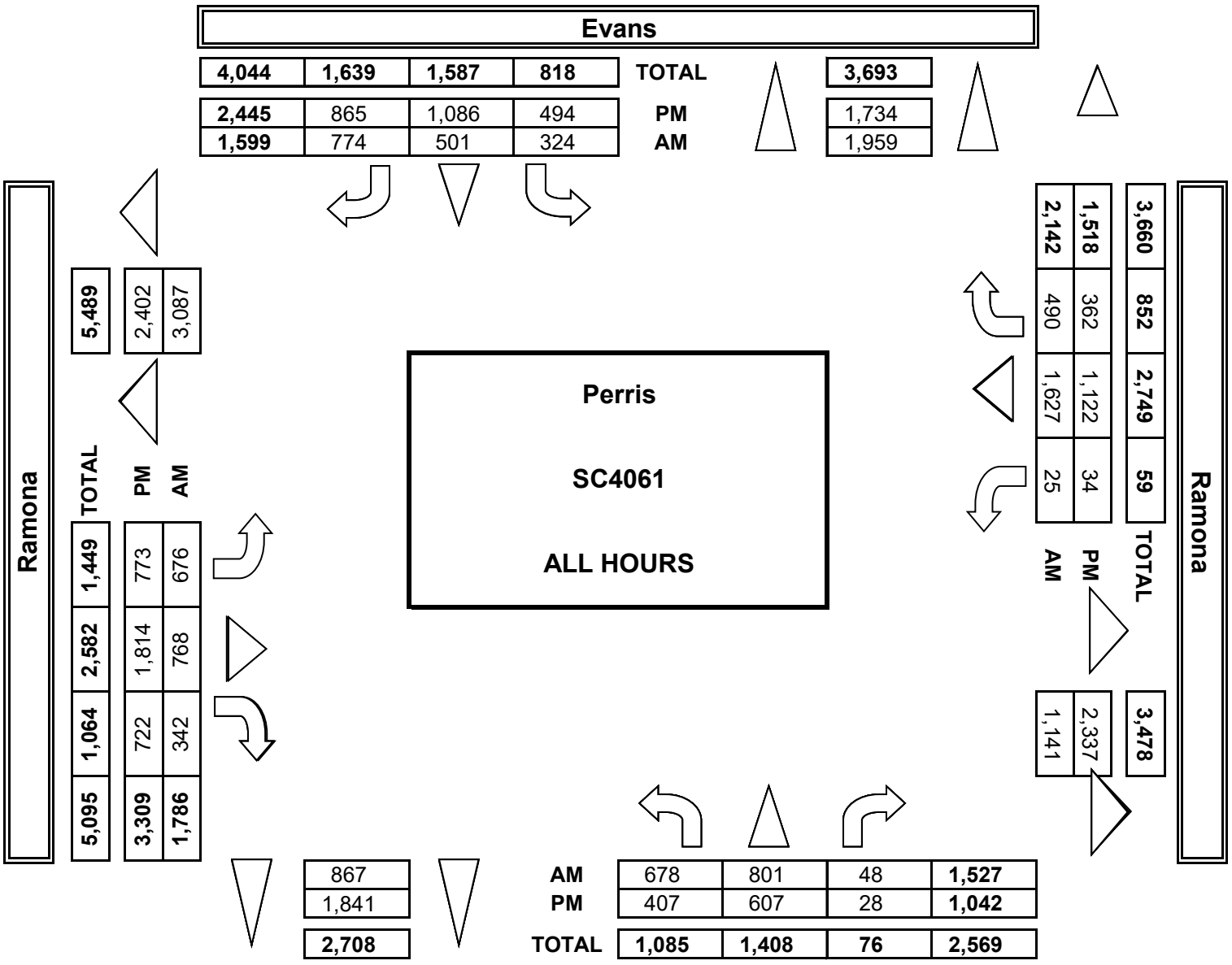
		NORTHBOUND Evans			SOUTHBOUND Evans			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	103	123	6	38	52	73	76	110	42	5	239	56	923	0	0	2	0	2	1	15	0	20
	7:15 AM	85	114	7	38	55	91	85	118	31	5	273	76	978	0	0	1	1	2	4	16	0	22
	7:30 AM	109	134	9	59	58	90	73	91	47	1	229	78	978	0	0	1	0	1	4	29	0	19
	7:45 AM	89	96	5	50	86	133	89	94	51	6	223	88	1,010	0	0	1	0	1	3	32	0	31
	8:00 AM	79	86	5	35	77	96	97	105	66	3	187	64	900	0	0	0	0	0	1	35	0	17
	8:15 AM	75	108	4	39	73	101	110	88	26	2	169	44	839	0	0	1	0	1	1	40	0	17
	8:30 AM	74	80	5	36	54	105	64	92	34	1	166	43	754	0	0	0	0	0	4	36	0	18
	8:45 AM	64	60	7	29	46	85	82	70	45	2	141	41	672	0	0	2	0	2	4	24	0	21
	VOLUMES	678	801	48	324	501	774	676	768	342	25	1,627	490	7,054	0	0	8	1	9	22	227	0	165
	APPROACH %	44%	52%	3%	20%	31%	48%	38%	43%	19%	1%	76%	23%										
	APP/DEPART	1,527	/	1,959	1,599	/	867	1,786	/	1,141	2,142	/	3,087	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	386	467	27	185	251	387	323	413	171	17	964	298	3,889						12	92	0	92
	APPROACH %	44%	53%	3%	22%	30%	47%	36%	46%	19%	1%	75%	23%										
	PEAK HR FACTOR		0.873			0.765			0.969			0.903		0.963									
	APP/DEPART	880	/	1,083	823	/	438	907	/	626	1,279	/	1,742	0									
PM	04:00 PM	45	90	4	71	158	118	86	213	85	8	150	46	1,074	0	0	1	1	2	1	16	0	18
	4:15 PM	54	70	0	61	133	113	96	205	81	3	130	53	999	0	0	1	0	1	0	19	0	21
	4:30 PM	47	68	4	85	135	103	87	241	80	5	171	47	1,073	0	0	1	0	1	1	30	0	16
	4:45 PM	52	58	4	45	136	102	118	280	101	2	132	46	1,076	0	0	2	0	2	1	29	0	21
	5:00 PM	66	89	1	73	126	110	91	192	86	5	132	41	1,012	0	0	0	0	0	1	25	0	16
	5:15 PM	47	65	5	46	127	121	116	242	97	5	132	44	1,047	0	0	2	0	2	2	30	0	13
	5:30 PM	49	75	4	67	154	110	89	220	86	4	151	45	1,054	0	0	0	0	0	1	25	0	14
	5:45 PM	47	92	6	46	117	88	90	221	106	2	124	40	979	0	0	1	0	1	1	18	0	11
	VOLUMES	407	607	28	494	1,086	865	773	1,814	722	34	1,122	362	8,314	0	0	8	1	9	8	192	0	130
	APPROACH %	39%	58%	3%	20%	44%	35%	23%	55%	22%	2%	74%	24%										
	APP/DEPART	1,042	/	1,734	2,445	/	1,841	3,309	/	2,337	1,518	/	2,402	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	198	286	12	262	562	436	387	939	347	18	583	192	4,222						3	94	0	76
	APPROACH %	40%	58%	2%	21%	45%	35%	23%	56%	21%	2%	74%	24%										
	PEAK HR FACTOR		0.892			0.908			0.838			0.889		0.981									
	APP/DEPART	496	/	860	1,260	/	926	1,673	/	1,214	793	/	1,222	0									

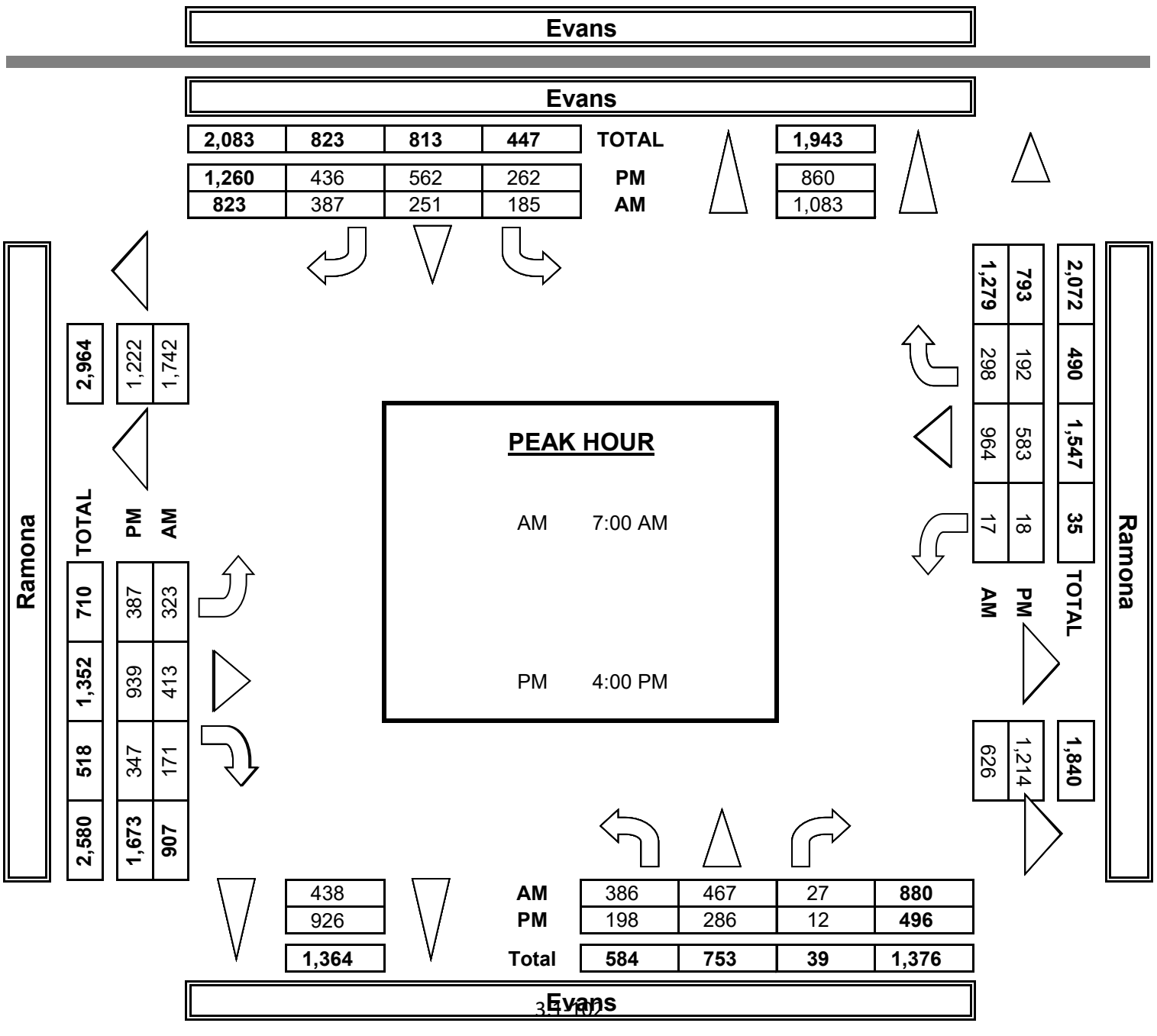


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	7:45 AM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
	TOTAL	2	0	3	1	6	1	0	1	0	2	1	0	2	1	4
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	3	0	4	1	0	1	0	2	0	0	2	0	2
	5:00 PM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	5:15 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	5:30 PM	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2
	5:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	2	4	5	1	12	1	2	2	1	6	1	2	3	0	6

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/25/23	NORTH & SOUTH:	Evans
THURSDAY	EAST & WEST:	Ramona

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Evans			SOUTHBOUNI Evans	
		NL	NT	NR	SL	ST
	LANES:	2	2	0	2	2
AM	7:00 AM	106	132	8	39	58
	7:15 AM	88	119	8	39	56
	7:30 AM	114	136	9	60	62
	7:45 AM	91	100	6	52	86
	8:00 AM	85	90	5	36	80
	8:15 AM	76	111	4	40	74
	8:30 AM	76	87	5	38	54
	8:45 AM	67	63	7	29	49
	VOLUMES	700	836	51	331	518
	APPROACH %	44%	53%	3%	20%	31%
	APP/DEPART	1,587	/	2,049	1,655	/
	BEGIN PEAK HR		7:00 AM			
	VOLUMES	397	486	30	190	261
	APPROACH %	44%	53%	3%	22%	31%
	PEAK HR FACTOR		0.884			0.770
	APP/DEPART	913	/	1,133	853	/
PM	04:00 PM	46	94	4	73	159
	4:15 PM	57	72	0	62	135
	4:30 PM	51	70	4	86	137
	4:45 PM	61	58	4	47	138
	5:00 PM	68	94	2	75	130
	5:15 PM	50	66	5	47	128
	5:30 PM	52	78	4	68	156
	5:45 PM	47	93	7	47	120
	VOLUMES	431	623	29	504	1,101
	APPROACH %	40%	58%	3%	20%	44%

APP/DEPART	1,083	/	1,784	2,488	/	
BEGIN PEAK HR		4:00 PM				
VOLUMES	214	293	12	268	568	
APPROACH %	41%	56%	2%	21%	44%	
PEAK HR FACTOR		0.904			0.912	
APP/DEPART	519	/	886	1,284	/	

Ramona WEST SIDE

RNING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 8
CONTROL: SIGNAL

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ramona			WESTBOUND Ramona			
SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL
75	82	127	44	7	253	58	985
94	91	136	33	5	288	78	1,032
95	79	100	47	2	244	80	1,026
139	93	107	52	6	233	89	1,052
99	100	120	72	3	198	65	950
105	117	96	29	3	180	45	878
110	66	119	36	1	176	43	809
91	90	79	48	2	167	41	731
806	715	884	358	29	1,737	498	7,460
49%	37%	45%	18%	1%	77%	22%	
904	1,956	/	1,266	2,263	/	3,242	0
403	343	470	175	20	1,017	304	4,094
47%	35%	48%	18%	1%	76%	23%	
		0.952			0.905		0.973
456	988	/	690	1,340	/	1,816	0
121	87	227	86	8	177	47	1,127
116	99	218	82	3	142	54	1,038
107	88	256	82	5	186	48	1,118
105	124	299	104	2	142	47	1,128
112	93	197	88	5	149	42	1,052
123	119	256	101	5	139	47	1,085
112	92	228	87	4	163	46	1,088
89	91	233	108	2	127	40	1,002
883	792	1,913	735	34	1,223	370	8,636
35%	23%	56%	21%	2%	75%	23%	

1,870	3,440	/	2,446	1,627	/	2,537	0
448 35%	397 23%	1,000 57% 0.832	353 20%	18 2%	645 75% 0.900	196 23%	4,410 0.977
939	1,749	/	1,279	859	/	1,307	0

Evans

NORTH SIDE

EAST SIDE **Ramona**

SOUTH SIDE

Evans

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Evans	LOCATION #:	8
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Evans			SOUTHBOUND Evans			EASTBOUND Ramona			WESTBOUND Ramona				U-TURNS					RTOR			
	LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	98	112	3	37	47	71	70	95	40	3	220	54	850	0	0	2	0	2	1	15	0	18
	7:15 AM	81	110	5	36	54	86	77	97	29	5	253	74	907	0	0	1	1	2	3	15	0	21
	7:30 AM	106	132	9	57	54	84	66	81	47	0	210	75	921	0	0	1	0	1	4	28	0	18
	7:45 AM	86	91	4	48	86	128	84	84	50	6	208	87	962	0	0	1	0	1	2	32	0	30
	8:00 AM	72	80	5	34	74	93	92	92	59	3	176	63	843	0	0	0	0	0	1	35	0	17
	8:15 AM	74	104	4	38	71	95	103	80	24	1	155	42	791	0	0	0	0	0	1	37	0	16
	8:30 AM	71	74	5	34	54	98	61	71	32	1	154	43	698	0	0	0	0	0	4	34	0	18
	8:45 AM	60	56	7	29	42	78	74	61	43	2	118	41	611	0	0	2	0	2	4	23	0	21
	VOLUMES	648	759	42	313	482	733	627	661	324	21	1,494	479	6,583	0	0	7	1	8	20	219	0	159
	APPROACH %	45%	52%	3%	20%	32%	48%	39%	41%	20%	1%	75%	24%										
	APP/DEPART	1,449	/	1,858	1,528	/	826	1,612	/	1,017	1,994	/	2,882	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	371	445	21	178	241	369	292	357	166	13	891	290	3,640						10	90	0	87
	APPROACH %	44%	53%	3%	23%	31%	47%	36%	44%	20%	1%	75%	24%										
	PEAK HR FACTOR		0.847			0.752			0.940			0.900		0.946									
	APP/DEPART	837	/	1,027	788	/	420	820	/	557	1,195	/	1,636	0									
PM	04:00 PM	44	85	4	68	157	115	84	200	84	8	125	44	1,018	0	0	0	1	1	1	16	0	16
	4:15 PM	52	68	0	59	130	108	91	188	79	3	117	52	947	0	0	0	0	0	0	19	0	21
	4:30 PM	43	65	4	84	132	99	86	229	77	5	155	46	1,025	0	0	1	0	1	1	29	0	15
	4:45 PM	47	58	4	43	133	98	111	260	96	2	125	44	1,021	0	0	2	0	2	1	27	0	20
	5:00 PM	63	82	0	71	121	107	88	184	83	5	114	39	957	0	0	0	0	0	0	25	0	16
	5:15 PM	44	63	5	44	125	117	111	224	93	5	122	40	993	0	0	2	0	2	2	29	0	11
	5:30 PM	46	73	4	66	151	108	86	210	85	4	140	43	1,016	0	0	0	0	0	1	25	0	14
	5:45 PM	47	91	5	45	112	87	88	209	105	2	119	40	950	0	0	1	0	1	1	18	0	11
	VOLUMES	386	585	26	480	1,061	839	745	1,704	702	34	1,017	348	7,927	0	0	6	1	7	7	188	0	124
	APPROACH %	39%	59%	3%	20%	45%	35%	24%	54%	22%	2%	73%	25%										
	APP/DEPART	997	/	1,672	2,380	/	1,796	3,151	/	2,211	1,399	/	2,248	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	186	276	12	254	552	420	369	877	336	17	522	186	4,011						3	91	0	72
	APPROACH %	39%	58%	3%	21%	45%	34%	23%	55%	21%	2%	72%	26%										
	PEAK HR FACTOR		0.891			0.901			0.849			0.881		0.978									
	APP/DEPART	474	/	831	1,226	/	905	1,585	/	1,144	726	/	1,131	0									

Evans

NORTH SIDE

Ramona WEST SIDE EAST SIDE **Ramona**

SOUTH SIDE

Evans

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/25/23	NORTH & SOUTH:	Evans	LOCATION #:	8
THURSDAY	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

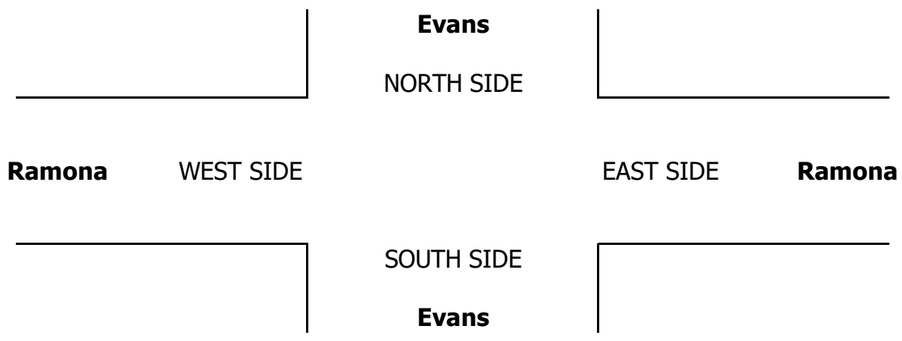
	NORTHBOUND Evans			SOUTHBOUND Evans			EASTBOUND Ramona			WESTBOUND Ramona			
LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL
7:00 AM	5	7	3	1	1	1	3	4	1	0	15	0	41
7:15 AM	3	1	2	2	1	4	7	12	0	0	13	1	46
7:30 AM	1	1	0	2	2	2	5	6	0	1	14	3	37
7:45 AM	3	4	1	0	0	2	3	4	1	0	13	0	31
8:00 AM	3	4	0	1	1	1	5	6	5	0	7	0	33
8:15 AM	1	2	0	1	2	5	3	2	1	0	10	2	29
8:30 AM	3	2	0	1	0	4	2	9	1	0	8	0	30
8:45 AM	2	3	0	0	2	5	5	4	1	0	11	0	33
VOLUMES	21	24	6	8	9	24	33	47	10	1	91	6	280
APPROACH %	41%	47%	12%	20%	22%	59%	37%	52%	11%	1%	93%	6%	
APP/DEPART	51	/	62	41	/	20	90	/	61	98	/	137	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	12	13	6	5	4	9	18	26	2	1	55	4	155
APPROACH %	39%	42%	19%	28%	22%	50%	39%	57%	4%	2%	92%	7%	
PEAK HR FACTOR		0.517			0.643			0.605			0.833		0.842
APP/DEPART	31	/	35	18	/	7	46	/	37	60	/	76	0
04:00 PM	0	3	0	2	1	1	2	8	1	0	13	2	33
4:15 PM	0	1	0	2	3	4	4	14	2	0	9	1	40
4:30 PM	3	2	0	0	2	3	1	6	3	0	7	0	27
4:45 PM	1	0	0	1	2	2	5	13	5	0	3	2	34
5:00 PM	2	5	1	1	3	2	2	7	3	0	10	2	38
5:15 PM	2	2	0	2	2	4	5	14	3	0	8	3	45
5:30 PM	2	1	0	0	2	1	2	8	1	0	5	2	24
5:45 PM	0	1	1	1	5	1	2	6	0	0	4	0	21
VOLUMES	10	15	2	9	20	18	23	76	18	0	59	12	262
APPROACH %	37%	56%	7%	19%	43%	38%	20%	65%	15%	0%	83%	17%	
APP/DEPART	27	/	48	47	/	38	117	/	87	71	/	89	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	4	6	0	5	8	10	10	41	11	0	32	5	134
APPROACH %	40%	60%	0%	22%	35%	43%	16%	64%	17%	0%	86%	14%	
PEAK HR FACTOR		0.500			0.639			0.696			0.617		0.838
APP/DEPART	10	/	21	23	/	19	64	/	46	37	/	48	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
1	0	0	0
0	1	0	1
1	0	0	0
0	0	0	0
0	2	0	1
0	2	0	0
0	1	0	0
2	6	0	2
2	1	0	1
0	0	0	2
0	0	0	0
0	1	0	0
0	1	0	1
1	0	0	0
0	1	0	2
0	0	0	0
0	0	0	0
1	3	0	5
0	2	0	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Evans	LOCATION #:	8
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

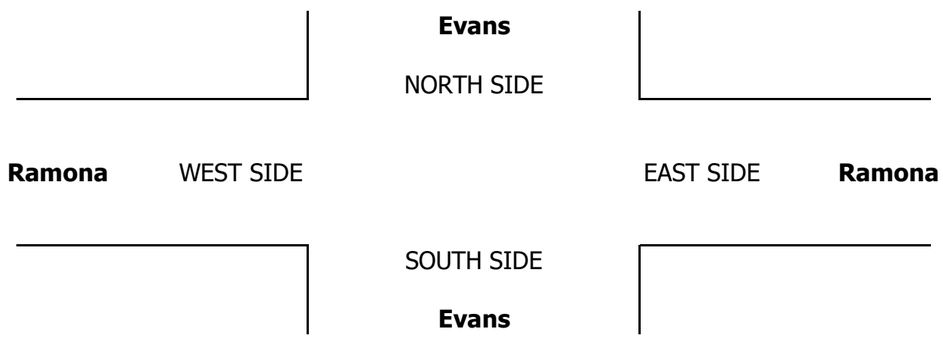
		NORTHBOUND Evans			SOUTHBOUND Evans			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	0	1	0	0	0	0	2	6	1	0	2	0	12
	7:15 AM	1	0	0	0	0	1	0	6	1	0	5	0	14
	7:30 AM	0	0	0	0	0	2	1	2	0	0	2	0	7
	7:45 AM	0	0	0	1	0	1	0	1	0	0	1	1	5
	8:00 AM	1	0	0	0	0	0	0	2	0	0	1	1	5
	8:15 AM	0	1	0	0	0	0	1	4	0	0	2	0	8
	8:30 AM	0	0	0	0	0	0	1	2	0	0	2	0	5
	8:45 AM	0	0	0	0	0	0	0	2	0	0	4	0	6
	VOLUMES	2	2	0	1	0	4	5	25	2	0	19	2	62
	APPROACH %	50%	50%	0%	20%	0%	80%	16%	78%	6%	0%	90%	10%	
	APP/DEPART	4	/	9	5	/	2	32	/	26	21	/	25	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	1	0	1	0	4	3	15	2	0	10	1	38
	APPROACH %	50%	50%	0%	20%	0%	80%	15%	75%	10%	0%	91%	9%	
	PEAK HR FACTOR		0.500			0.625			0.556			0.550		0.679
	APP/DEPART	2	/	5	5	/	2	20	/	16	11	/	15	0
PM	04:00 PM	1	1	0	1	0	0	0	0	0	0	4	0	7
	4:15 PM	1	1	0	0	0	0	0	0	0	0	1	0	3
	4:30 PM	0	1	0	1	0	0	0	0	0	0	7	0	9
	4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:00 PM	1	1	0	0	0	1	0	1	0	0	4	0	8
	5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:30 PM	0	0	0	0	1	0	0	0	0	0	3	0	4
	5:45 PM	0	0	0	0	0	0	0	3	0	0	1	0	4
	VOLUMES	3	4	0	2	1	1	0	7	0	0	21	0	39
	APPROACH %	43%	57%	0%	50%	25%	25%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	7	/	4	4	/	1	7	/	9	21	/	25	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	3	0	2	0	0	0	2	0	0	12	0	21
	APPROACH %	40%	60%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.625			0.500			0.250			0.429		0.583
	APP/DEPART	5	/	3	2	/	0	2	/	4	12	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	1
0	1	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Evans	LOCATION #:	8
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

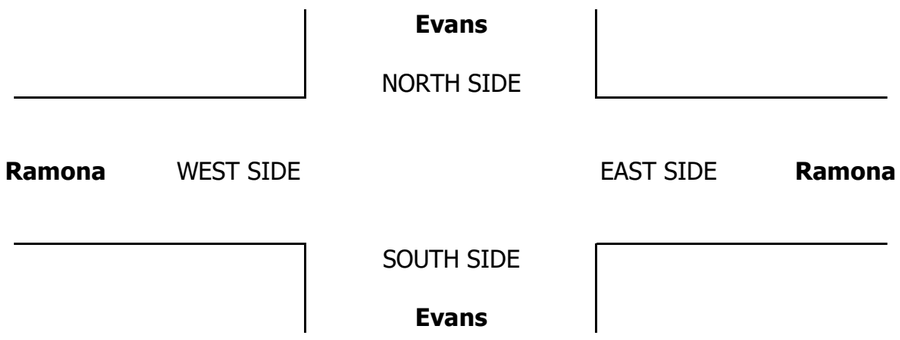
		NORTHBOUND Evans			SOUTHBOUND Evans			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	0	1	0	0	1	0	1	4	0	0	2	0	9
	7:15 AM	0	1	0	0	0	0	1	3	0	0	1	0	6
	7:30 AM	2	0	0	0	1	0	1	2	0	0	3	0	9
	7:45 AM	0	1	0	0	0	2	0	5	0	0	1	0	9
	8:00 AM	0	0	0	0	0	0	0	5	1	0	3	0	9
	8:15 AM	0	0	0	0	0	0	1	1	1	0	2	0	5
	8:30 AM	0	2	0	0	0	0	0	10	0	0	2	0	14
	8:45 AM	0	0	0	0	0	1	2	2	1	0	8	0	14
	VOLUMES	2	5	0	0	2	3	6	32	3	0	22	0	75
	APPROACH %	29%	71%	0%	0%	40%	60%	15%	78%	7%	0%	100%	0%	
	APP/DEPART	7	/	11	5	/	5	41	/	32	22	/	27	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	2	3	0	0	2	2	3	14	0	0	7	0	33
	APPROACH %	40%	60%	0%	0%	50%	50%	18%	82%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.625			0.500			0.850			0.583		0.917
	APP/DEPART	5	/	6	4	/	2	17	/	14	7	/	11	0
PM	04:00 PM	0	0	0	0	0	0	0	5	0	0	8	0	13
	4:15 PM	1	0	0	0	0	0	0	3	0	0	3	0	7
	4:30 PM	1	0	0	0	0	1	0	6	0	0	2	0	10
	4:45 PM	4	0	0	0	0	0	1	5	0	0	4	0	14
	5:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	4
	5:15 PM	1	0	0	0	0	0	0	3	1	0	1	0	6
	5:30 PM	1	1	0	0	0	0	1	2	0	0	3	0	8
	5:45 PM	0	0	0	0	0	0	0	3	1	0	0	0	4
	VOLUMES	8	1	0	0	0	1	2	27	2	0	25	0	66
	APPROACH %	89%	11%	0%	0%	0%	100%	6%	87%	6%	0%	100%	0%	
	APP/DEPART	9	/	3	1	/	2	31	/	27	25	/	34	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	6	0	0	0	0	1	1	19	0	0	17	0	44
	APPROACH %	100%	0%	0%	0%	0%	100%	5%	95%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.375			0.250			0.833			0.531		0.786
	APP/DEPART	6	/	1	1	/	0	20	/	19	17	/	24	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/23	LOCATION:	Perris	PROJECT #:	SC4061
THURSDAY	NORTH & SOUTH:	Evans	LOCATION #:	8
	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Evans			SOUTHBOUND Evans			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/25/23	NORTH & SOUTH:	Evans	LOCATION #:	8
THURSDAY	EAST & WEST:	Ramona	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

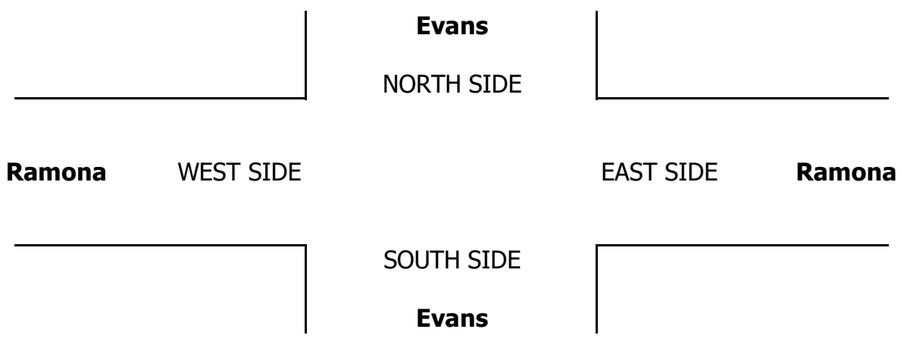
		NORTHBOUND Evans			SOUTHBOUND Evans			EASTBOUND Ramona			WESTBOUND Ramona			
	LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	0	2	0	0	3	1	0	0	0	2	0	2	10
	7:15 AM	0	2	0	0	0	0	0	0	1	0	1	1	5
	7:30 AM	0	1	0	0	1	2	0	0	0	0	0	0	4
	7:45 AM	0	0	0	1	0	0	2	0	0	0	0	0	3
	8:00 AM	3	2	0	0	2	2	0	0	1	0	0	0	10
	8:15 AM	0	1	0	0	0	1	2	1	0	1	0	0	6
	8:30 AM	0	2	0	1	0	3	0	0	1	0	0	0	7
	8:45 AM	2	1	0	0	2	1	1	1	0	0	0	0	8
	VOLUMES	5	11	0	2	8	10	5	2	3	3	1	3	53
	APPROACH %	31%	69%	0%	10%	40%	50%	50%	20%	30%	43%	14%	43%	
	APP/DEPART	16	/	19	20	/	14	10	/	4	7	/	16	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	5	0	1	4	3	2	0	1	2	1	3	22
	APPROACH %	0%	100%	0%	13%	50%	38%	67%	0%	33%	33%	17%	50%	
	PEAK HR FACTOR		0.625			0.500			0.375			0.375		0.550
	APP/DEPART	5	/	10	8	/	7	3	/	1	6	/	4	0
PM	04:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	3
	4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	4:45 PM	0	0	0	1	1	2	0	0	0	0	0	0	4
	5:00 PM	0	1	0	1	2	0	1	0	0	0	0	0	5
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	3	4	6	2	0	0	0	0	2	19
	APPROACH %	0%	100%	0%	23%	31%	46%	100%	0%	0%	0%	0%	100%	
	APP/DEPART	2	/	6	13	/	4	2	/	3	2	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	1	2	5	1	0	0	0	0	1	11
	APPROACH %	0%	100%	0%	13%	25%	63%	100%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.250			0.500			0.250			0.250		0.688
	APP/DEPART	1	/	3	8	/	2	1	/	1	1	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	2
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	1	0	3
0	0	0	3
0	0	0	0
0	0	0	0
0	0	0	1
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	1
0	1	0	1



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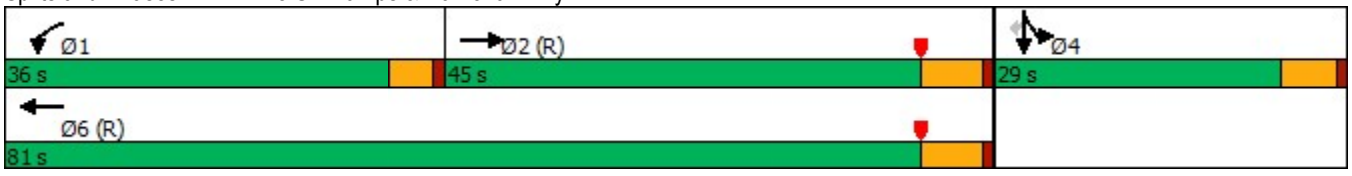
APPENDIX 3.2: EXISTING (2023) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

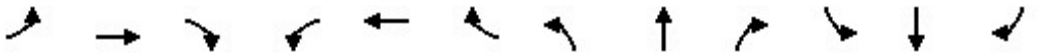
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Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	541	320	867	430	2	112
Future Volume (vph)	541	320	867	430	2	112
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	45.0	36.0	81.0	29.0	29.0	29.0
Total Split (%)	40.9%	32.7%	73.6%	26.4%	26.4%	26.4%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	48.9	25.5	78.9	19.6	19.6	19.6
Actuated g/C Ratio	0.44	0.23	0.72	0.18	0.18	0.18
v/c Ratio	0.63	0.82	0.36	0.76	0.76	0.31
Control Delay	22.5	45.6	2.5	58.6	59.1	9.0
Queue Delay	0.0	0.1	0.3	2.6	2.7	0.0
Total Delay	22.5	45.7	2.8	61.1	61.8	9.0
LOS	C	D	A	E	E	A
Approach Delay	22.5		14.4		50.7	
Approach LOS	C		B		D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 70.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	541	404	320	867	0	0	0	0	430	2	112
Future Volume (veh/h)	0	541	404	320	867	0	0	0	0	430	2	112
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	569	276	337	913	0				454	0	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1144	554	372	2639	0				545	0	242
Arrive On Green	0.00	0.49	0.49	0.21	0.74	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	2414	1124	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	435	410	337	913	0				454	0	72
Grp Sat Flow(s),veh/h/ln	0	1777	1668	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	18.1	18.2	20.3	9.8	0.0				13.6	0.0	4.4
Cycle Q Clear(g_c), s	0.0	18.1	18.2	20.3	9.8	0.0				13.6	0.0	4.4
Prop In Lane	0.00		0.67	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	876	822	372	2639	0				545	0	242
V/C Ratio(X)	0.00	0.50	0.50	0.91	0.35	0.00				0.83	0.00	0.30
Avail Cap(c_a), veh/h	0	876	822	510	2639	0				761	0	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.7	18.8	42.5	4.9	0.0				45.2	0.0	41.3
Incr Delay (d2), s/veh	0.0	2.0	2.2	13.4	0.3	0.0				5.6	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	7.2	6.9	9.9	2.6	0.0				6.2	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.8	20.9	55.8	5.2	0.0				50.9	0.0	42.0
LnGrp LOS	A	C	C	E	A	A				D	A	D
Approach Vol, veh/h		845			1250						526	
Approach Delay, s/veh		20.8			18.9						49.7	
Approach LOS		C			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	27.5	60.2		22.3		87.7
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0
Max Green Setting (Gmax), s	31.5	39.0		23.5		75.0
Max Q Clear Time (g_c+I1), s	22.3	20.2		15.6		11.8
Green Ext Time (p_c), s	0.7	2.9		1.2		4.0

Intersection Summary	
HCM 6th Ctrl Delay	25.7
HCM 6th LOS	C

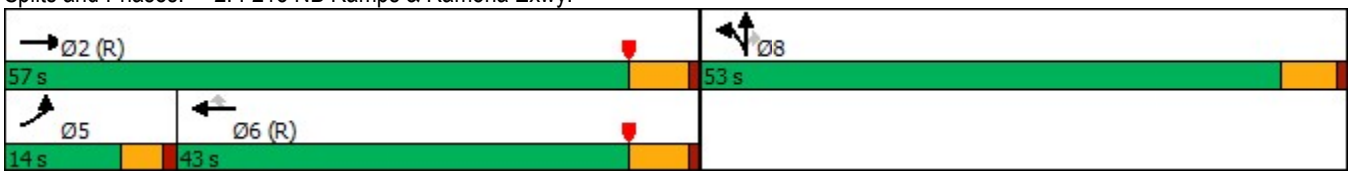
Notes

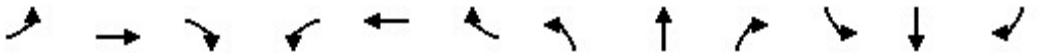
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	85	886	858	530	329	3	568
Future Volume (vph)	85	886	858	530	329	3	568
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	14.0	57.0	43.0	43.0	53.0	53.0	53.0
Total Split (%)	12.7%	51.8%	39.1%	39.1%	48.2%	48.2%	48.2%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	9.1	56.2	44.8	44.8	42.3	42.3	42.3
Actuated g/C Ratio	0.08	0.51	0.41	0.41	0.38	0.38	0.38
v/c Ratio	0.60	0.51	0.61	0.61	0.26	0.27	0.89
Control Delay	61.2	26.4	30.4	10.6	23.1	23.2	43.8
Queue Delay	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	29.4	30.4	10.6	23.1	23.2	43.8
LOS	E	C	C	B	C	C	D
Approach Delay		32.2	22.8			36.2	
Approach LOS		C	C			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 70.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	886	0	0	858	530	329	3	568	0	0	0
Future Volume (veh/h)	85	886	0	0	858	530	329	3	568	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	88	913	0	0	885	426	341	0	380			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	110	2221	0	0	1855	828	964	0	429			
Arrive On Green	0.12	1.00	0.00	0.00	0.52	0.52	0.27	0.00	0.27			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	88	913	0	0	885	426	341	0	380			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	5.3	0.0	0.0	0.0	17.4	19.3	8.5	0.0	25.3			
Cycle Q Clear(g_c), s	5.3	0.0	0.0	0.0	17.4	19.3	8.5	0.0	25.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	110	2221	0	0	1855	828	964	0	429			
V/C Ratio(X)	0.80	0.41	0.00	0.00	0.48	0.51	0.35	0.00	0.89			
Avail Cap(c_a), veh/h	154	2221	0	0	1855	828	1538	0	684			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.5	0.0	0.0	0.0	16.7	17.2	32.4	0.0	38.5			
Incr Delay (d2), s/veh	13.1	0.4	0.0	0.0	0.9	2.3	0.2	0.0	8.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.5	0.1	0.0	0.0	6.6	6.8	3.6	0.0	10.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	0.4	0.0	0.0	17.6	19.5	32.6	0.0	47.0			
LnGrp LOS	E	A	A	A	B	B	C	A	D			
Approach Vol, veh/h		1001			1311			721				
Approach Delay, s/veh		5.7			18.2			40.2				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		74.7			11.3	63.4		35.3				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		51.0			9.5	37.0		47.5				
Max Q Clear Time (g_c+I1), s		2.0			7.3	21.3		27.3				
Green Ext Time (p_c), s		4.0			0.0	4.0		2.4				

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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	1275	179	14	1388	0	0	0	38	0	0	0
Future Vol, veh/h	0	1275	179	14	1388	0	0	0	38	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	125	-	-	130	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1301	183	14	1416	0	0	0	39	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1416	0	0	1484	0	0	-	-	742
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	477	-	-	449	-	-	0	0	358
Stage 1	-	-	-	-	-	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	477	-	-	449	-	-	-	0	358
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

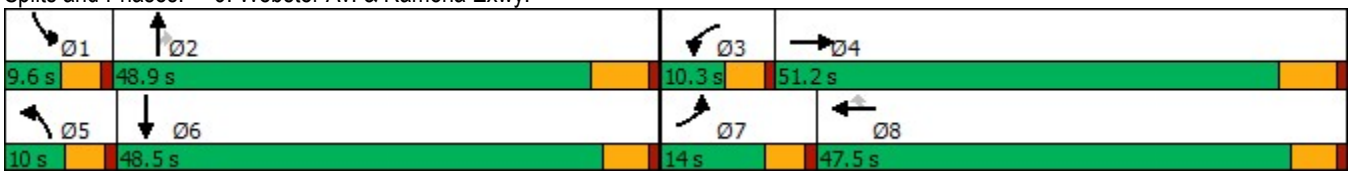
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.3
HCM LOS			C

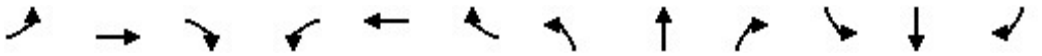
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	358	477	-	-	449	-	-
HCM Lane V/C Ratio	0.108	-	-	-	0.032	-	-
HCM Control Delay (s)	16.3	0	-	-	13.3	-	-
HCM Lane LOS	C	A	-	-	B	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	194	1053	21	1244	30	79	60	14	32	16
Future Volume (vph)	194	1053	21	1244	30	79	60	14	32	16
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	14.0	51.2	10.3	47.5	47.5	10.0	48.9	48.9	9.6	48.5
Total Split (%)	11.7%	42.7%	8.6%	39.6%	39.6%	8.3%	40.8%	40.8%	8.0%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	10.1	38.0	5.7	27.7	27.7	7.6	16.7	16.7	5.3	15.1
Actuated g/C Ratio	0.13	0.49	0.07	0.36	0.36	0.10	0.22	0.22	0.07	0.20
v/c Ratio	0.86	0.46	0.16	0.69	0.05	0.47	0.15	0.03	0.27	0.25
Control Delay	70.1	16.2	45.0	24.2	0.1	50.7	27.4	0.1	47.9	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	16.2	45.0	24.2	0.1	50.7	27.4	0.1	47.9	10.6
LOS	E	B	D	C	A	D	C	A	D	B
Approach Delay		24.2		24.0			37.0			20.1
Approach LOS		C		C			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.8	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 59.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	1053	66	21	1244	30	79	60	14	32	16	79
Future Volume (veh/h)	194	1053	66	21	1244	30	79	60	14	32	16	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	198	1074	51	21	1269	26	81	61	8	33	16	36
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	2383	113	43	1878	583	104	298	252	60	68	154
Arrive On Green	0.13	0.48	0.48	0.02	0.37	0.37	0.06	0.16	0.16	0.03	0.13	0.13
Sat Flow, veh/h	1781	4995	237	1781	5106	1585	1781	1870	1585	1781	507	1140
Grp Volume(v), veh/h	198	732	393	21	1269	26	81	61	8	33	0	52
Grp Sat Flow(s),veh/h/ln	1781	1702	1828	1781	1702	1585	1781	1870	1585	1781	0	1647
Q Serve(g_s), s	7.7	10.1	10.1	0.8	14.8	0.7	3.2	2.0	0.3	1.3	0.0	2.0
Cycle Q Clear(g_c), s	7.7	10.1	10.1	0.8	14.8	0.7	3.2	2.0	0.3	1.3	0.0	2.0
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	237	1624	872	43	1878	583	104	298	252	60	0	222
V/C Ratio(X)	0.83	0.45	0.45	0.49	0.68	0.04	0.78	0.20	0.03	0.55	0.00	0.23
Avail Cap(c_a), veh/h	237	2170	1165	144	3067	952	136	1131	959	126	0	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	12.3	12.3	34.0	18.8	14.3	32.8	25.8	25.1	33.6	0.0	27.3
Incr Delay (d2), s/veh	20.8	0.2	0.4	3.3	0.4	0.0	13.7	0.3	0.1	2.9	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	4.3	3.1	3.3	0.4	4.9	0.2	1.7	0.9	0.1	0.6	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	12.5	12.7	37.3	19.2	14.4	46.5	26.1	25.1	36.5	0.0	27.8
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	A	C
Approach Vol, veh/h		1323			1316			150			85	
Approach Delay, s/veh		18.3			19.4			37.1			31.2	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	17.4	6.3	39.9	8.7	15.7	14.0	32.2
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.0	42.7	5.7	45.0	5.4	* 43	9.4	* 42
Max Q Clear Time (g_c+I1), s	3.3	4.0	2.8	12.1	5.2	4.0	9.7	16.8
Green Ext Time (p_c), s	0.0	0.3	0.0	7.7	0.0	0.3	0.0	9.2

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

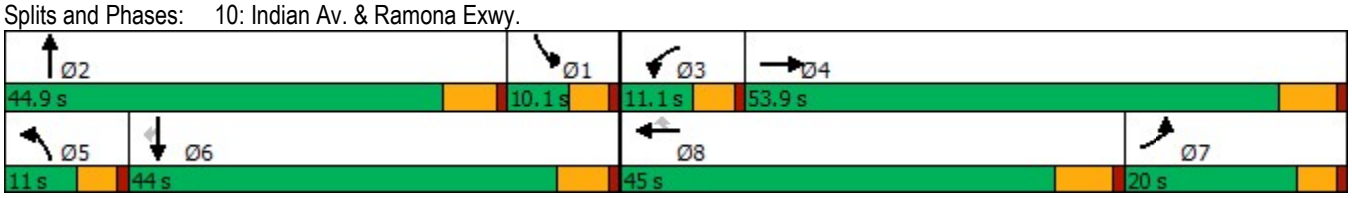
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	111	948	32	1221	58	29	88	18	65	33
Future Volume (vph)	111	948	32	1221	58	29	88	18	65	33
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	20.0	53.9	11.1	45.0	45.0	11.0	44.9	10.1	44.0	44.0
Total Split (%)	16.7%	44.9%	9.3%	37.5%	37.5%	9.2%	37.4%	8.4%	36.7%	36.7%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	11.2	40.7	7.3	34.9	34.9	7.2	16.5	7.0	16.4	16.4
Actuated g/C Ratio	0.16	0.59	0.11	0.51	0.51	0.10	0.24	0.10	0.24	0.24
v/c Ratio	0.40	0.34	0.18	0.49	0.07	0.16	0.14	0.11	0.08	0.07
Control Delay	40.1	14.0	44.0	20.2	0.1	44.1	22.6	44.7	28.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	14.0	44.0	20.2	0.1	44.1	22.6	44.7	28.0	0.2
LOS	D	B	D	C	A	D	C	D	C	A
Approach Delay		16.7		19.9			26.9		22.8	
Approach LOS		B		B			C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 68.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 51.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	948	39	32	1221	58	29	88	27	18	65	33
Future Volume (veh/h)	111	948	39	32	1221	58	29	88	27	18	65	33
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	988	34	33	1272	34	30	92	8	19	68	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2276	78	61	1915	594	57	497	43	40	564	251
Arrive On Green	0.08	0.45	0.45	0.03	0.38	0.38	0.03	0.15	0.15	0.02	0.16	0.16
Sat Flow, veh/h	1781	5069	174	1781	5106	1585	1781	3311	285	1781	3554	1585
Grp Volume(v), veh/h	116	663	359	33	1272	34	30	49	51	19	68	9
Grp Sat Flow(s),veh/h/ln	1781	1702	1839	1781	1702	1585	1781	1777	1819	1781	1777	1585
Q Serve(g_s), s	4.2	8.7	8.7	1.2	13.5	0.9	1.1	1.6	1.6	0.7	1.1	0.2
Cycle Q Clear(g_c), s	4.2	8.7	8.7	1.2	13.5	0.9	1.1	1.6	1.6	0.7	1.1	0.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	150	1529	826	61	1915	594	57	266	273	40	564	251
V/C Ratio(X)	0.78	0.43	0.43	0.54	0.66	0.06	0.52	0.18	0.19	0.48	0.12	0.04
Avail Cap(c_a), veh/h	421	2494	1347	178	3043	945	175	1067	1093	150	2085	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	12.3	12.3	30.9	16.9	13.0	31.0	24.2	24.2	31.4	23.5	10.8
Incr Delay (d2), s/veh	3.2	0.2	0.4	2.7	0.4	0.0	2.7	0.3	0.3	3.3	0.1	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	1.7	2.6	2.8	0.5	4.3	0.3	0.5	0.6	0.7	0.3	0.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	12.5	12.6	33.6	17.3	13.0	33.8	24.5	24.5	34.7	23.6	10.8
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	B
Approach Vol, veh/h		1138			1339			130			96	
Approach Delay, s/veh		14.6			17.6			26.7			24.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	15.6	6.8	35.4	6.7	16.1	11.7	30.6
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	5.5	* 39	6.5	47.7	6.4	38.2	15.4	* 39
Max Q Clear Time (g_c+I1), s	2.7	3.6	3.2	10.7	3.1	3.1	6.2	15.5
Green Ext Time (p_c), s	0.0	0.5	0.0	6.9	0.0	0.4	0.1	8.9

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

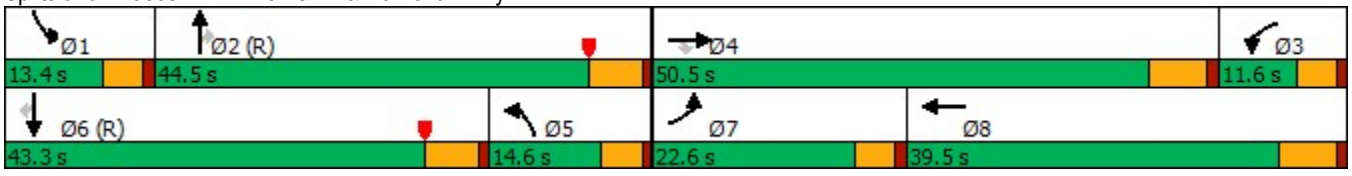
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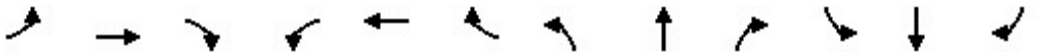
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	319	601	73	85	952	148	523	64	121	310	211
Future Volume (vph)	319	601	73	85	952	148	523	64	121	310	211
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	22.6	50.5	50.5	11.6	39.5	14.6	44.5	44.5	13.4	43.3	43.3
Total Split (%)	18.8%	42.1%	42.1%	9.7%	32.9%	12.2%	37.1%	37.1%	11.2%	36.1%	36.1%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.3	27.3	27.3	21.5	31.5	10.0	44.0	44.0	8.0	42.0	42.0
Actuated g/C Ratio	0.13	0.23	0.23	0.18	0.26	0.08	0.37	0.37	0.07	0.35	0.35
v/c Ratio	0.75	0.53	0.15	0.14	0.82	0.53	0.41	0.09	0.54	0.26	0.31
Control Delay	61.3	43.6	0.6	40.2	46.4	59.9	30.7	0.3	63.1	29.6	5.2
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	43.6	0.6	40.2	46.4	59.9	30.7	0.3	63.1	29.6	5.2
LOS	E	D	A	D	D	E	C	A	E	C	A
Approach Delay		46.2			46.0		33.9			27.9	
Approach LOS		D			D		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38.2 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 40.2	Intersection LOS: D
Intersection Capacity Utilization 66.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	601	73	85	952	109	148	523	64	121	310	211
Future Volume (veh/h)	319	601	73	85	952	109	148	523	64	121	310	211
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	326	613	30	87	971	94	151	534	14	123	316	124
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	838	260	614	1153	111	504	1482	661	177	1111	495
Arrive On Green	0.11	0.16	0.16	0.18	0.24	0.24	0.15	0.42	0.42	0.05	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	3456	4735	457	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	326	613	30	87	697	368	151	534	14	123	316	124
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1788	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.1	13.7	1.9	2.5	23.4	23.5	4.7	12.4	0.3	4.2	8.1	5.0
Cycle Q Clear(g_c), s	11.1	13.7	1.9	2.5	23.4	23.5	4.7	12.4	0.3	4.2	8.1	5.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	838	260	614	829	435	504	1482	661	177	1111	495
V/C Ratio(X)	0.85	0.73	0.12	0.14	0.84	0.84	0.30	0.36	0.02	0.70	0.28	0.25
Avail Cap(c_a), veh/h	518	1885	585	614	945	496	504	1482	661	253	1111	495
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	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	47.6	42.7	41.6	43.2	43.2	45.8	24.0	5.6	56.0	31.1	15.6
Incr Delay (d2), s/veh	7.0	1.2	0.2	0.0	5.0	9.2	0.1	0.7	0.1	1.8	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	5.7	0.7	1.1	10.0	11.0	2.0	5.1	0.2	1.8	3.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	48.8	42.9	41.7	48.2	52.4	45.9	24.7	5.7	57.9	31.8	16.8
LnGrp LOS	E	D	D	D	D	D	D	C	A	E	C	B
Approach Vol, veh/h		969			1152			699			563	
Approach Delay, s/veh		52.2			49.0			28.9			34.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	55.9	27.5	25.9	23.3	43.3	18.0	35.4
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	8.8	38.7	7.0	* 44	10.0	* 38	18.0	33.3
Max Q Clear Time (g_c+I1), s	6.2	14.4	4.5	15.7	6.7	10.1	13.1	25.5
Green Ext Time (p_c), s	0.0	3.3	0.0	4.0	0.1	2.3	0.3	3.7

Intersection Summary	
HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

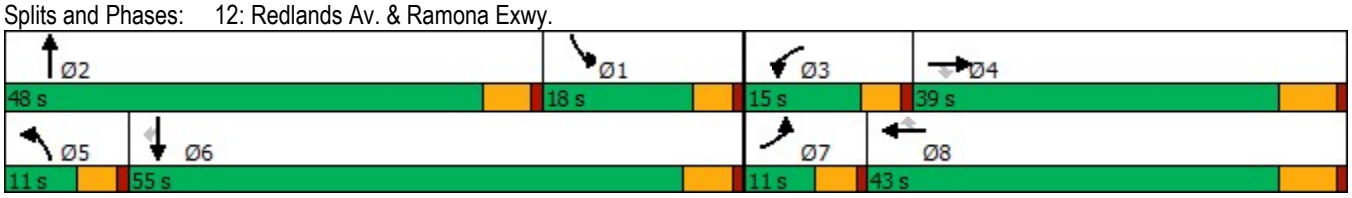
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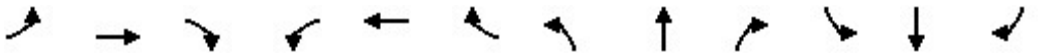
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	17	716	37	85	1195	461	32	137	76	37	6
Future Volume (vph)	17	716	37	85	1195	461	32	137	76	37	6
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	11.0	39.0	39.0	15.0	43.0	43.0	11.0	48.0	18.0	55.0	55.0
Total Split (%)	9.2%	32.5%	32.5%	12.5%	35.8%	35.8%	9.2%	40.0%	15.0%	45.8%	45.8%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	6.2	23.3	23.3	8.6	30.1	30.1	6.4	18.5	8.6	25.4	25.4
Actuated g/C Ratio	0.08	0.31	0.31	0.11	0.40	0.40	0.08	0.25	0.11	0.34	0.34
v/c Ratio	0.12	0.47	0.06	0.43	0.60	0.52	0.22	0.57	0.38	0.06	0.01
Control Delay	46.7	25.2	0.2	46.8	22.3	4.9	46.9	29.2	44.6	21.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	25.2	0.2	46.8	22.3	4.9	46.9	29.2	44.6	21.4	0.0
LOS	D	C	A	D	C	A	D	C	D	C	A
Approach Delay		24.5			18.9			31.2		35.2	
Approach LOS		C			B			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 75.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	716	37	85	1195	461	32	137	114	76	37	6
Future Volume (veh/h)	17	716	37	85	1195	461	32	137	114	76	37	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	731	28	87	1219	344	33	140	81	78	38	1
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	1763	536	113	1982	603	63	191	111	108	396	329
Arrive On Green	0.02	0.35	0.35	0.06	0.39	0.39	0.04	0.17	0.17	0.06	0.21	0.21
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	1105	640	1781	1870	1558
Grp Volume(v), veh/h	17	731	28	87	1219	344	33	0	221	78	38	1
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1745	1781	1870	1558
Q Serve(g_s), s	0.6	6.6	0.7	2.9	11.6	6.2	1.1	0.0	7.2	2.6	1.0	0.0
Cycle Q Clear(g_c), s	0.6	6.6	0.7	2.9	11.6	6.2	1.1	0.0	7.2	2.6	1.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	37	1763	536	113	1982	603	63	0	302	108	396	329
V/C Ratio(X)	0.46	0.41	0.05	0.77	0.61	0.57	0.53	0.00	0.73	0.72	0.10	0.00
Avail Cap(c_a), veh/h	189	2774	843	307	3112	946	189	0	1231	395	1537	1280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	15.1	13.2	27.8	14.8	5.0	28.6	0.0	23.6	27.9	19.2	18.8
Incr Delay (d2), s/veh	3.4	0.2	0.0	4.1	0.3	0.9	2.5	0.0	3.4	3.4	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.1	0.2	1.2	3.5	2.6	0.5	0.0	3.0	1.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	15.3	13.2	31.9	15.2	5.9	31.2	0.0	27.1	31.3	19.3	18.8
LnGrp LOS	C	B	B	C	B	A	C	A	C	C	B	B
Approach Vol, veh/h		776			1650			254			117	
Approach Delay, s/veh		15.6			14.1			27.6			27.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	15.8	8.4	27.0	6.7	18.2	5.8	29.6
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	13.4	* 43	10.4	32.8	6.4	49.6	6.4	36.8
Max Q Clear Time (g_c+I1), s	4.6	9.2	4.9	8.6	3.1	3.0	2.6	13.6
Green Ext Time (p_c), s	0.0	1.3	0.0	4.7	0.0	0.2	0.0	9.9

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

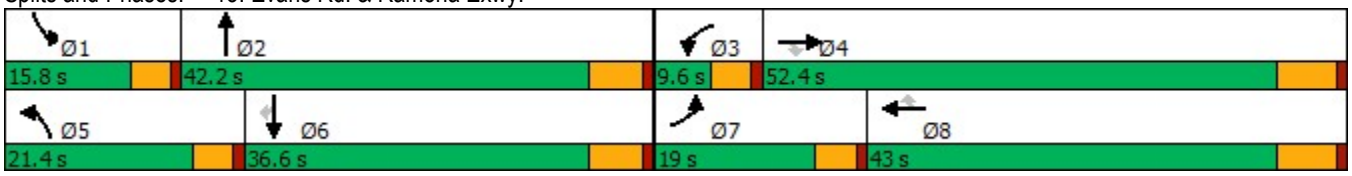
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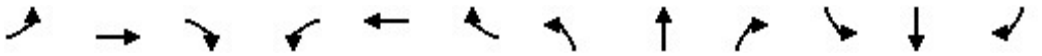
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	323	413	171	17	966	298	387	467	185	251	388
Future Volume (vph)	323	413	171	17	966	298	387	467	185	251	388
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	19.0	52.4	52.4	9.6	43.0	43.0	21.4	42.2	15.8	36.6	36.6
Total Split (%)	15.8%	43.7%	43.7%	8.0%	35.8%	35.8%	17.8%	35.2%	13.2%	30.5%	30.5%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.9	51.3	51.3	5.7	36.7	36.7	16.0	28.7	10.4	23.0	23.0
Actuated g/C Ratio	0.13	0.48	0.48	0.05	0.35	0.35	0.15	0.27	0.10	0.22	0.22
v/c Ratio	0.75	0.17	0.21	0.19	0.82	0.44	0.78	0.54	0.58	0.34	0.81
Control Delay	57.6	17.9	4.0	58.5	39.8	10.2	56.5	35.1	55.7	36.5	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	17.9	4.0	58.5	39.8	10.2	56.5	35.1	55.7	36.5	33.3
LOS	E	B	A	E	D	B	E	D	E	D	C
Approach Delay		29.4			33.2			44.5		39.3	
Approach LOS		C			C			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.1	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 36.2	Intersection LOS: D
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	323	413	171	17	966	298	387	467	27	185	251	388
Future Volume (veh/h)	323	413	171	17	966	298	387	467	27	185	251	388
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	336	430	0	18	1006	214	403	486	16	193	261	308
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	420	2241		45	1218	543	488	1051	35	278	848	378
Arrive On Green	0.12	0.44	0.00	0.03	0.34	0.34	0.14	0.30	0.30	0.08	0.24	0.24
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3509	115	3456	3554	1585
Grp Volume(v), veh/h	336	430	0	18	1006	214	403	246	256	193	261	308
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1848	1728	1777	1585
Q Serve(g_s), s	9.7	5.3	0.0	1.0	26.7	10.5	11.7	11.6	11.6	5.6	6.2	18.9
Cycle Q Clear(g_c), s	9.7	5.3	0.0	1.0	26.7	10.5	11.7	11.6	11.6	5.6	6.2	18.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	420	2241		45	1218	543	488	532	554	278	848	378
V/C Ratio(X)	0.80	0.19		0.40	0.83	0.39	0.83	0.46	0.46	0.69	0.31	0.81
Avail Cap(c_a), veh/h	504	2403		97	1348	601	585	660	686	397	1127	503
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	17.7	0.0	49.3	31.0	25.7	42.9	29.3	29.3	46.0	32.2	37.0
Incr Delay (d2), s/veh	6.2	0.0	0.0	2.1	4.0	0.5	6.8	0.6	0.6	1.2	0.2	7.5
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	4.3	1.9	0.0	0.5	11.0	3.7	5.2	4.8	5.0	2.4	2.6	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	17.7	0.0	51.4	35.0	26.1	49.8	29.9	29.9	47.2	32.4	44.5
LnGrp LOS	D	B		D	D	C	D	C	C	D	C	D
Approach Vol, veh/h		766	A		1238			905			762	
Approach Delay, s/veh		31.9			33.7			38.7			41.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	34.8	6.6	49.1	18.5	28.5	16.5	39.2
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	11.2	36.4	5.0	45.9	16.8	30.8	14.4	36.5
Max Q Clear Time (g_c+I1), s	7.6	13.6	3.0	7.3	13.7	20.9	11.7	28.7
Green Ext Time (p_c), s	0.1	2.6	0.0	2.6	0.3	1.9	0.2	4.0

Intersection Summary	
HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

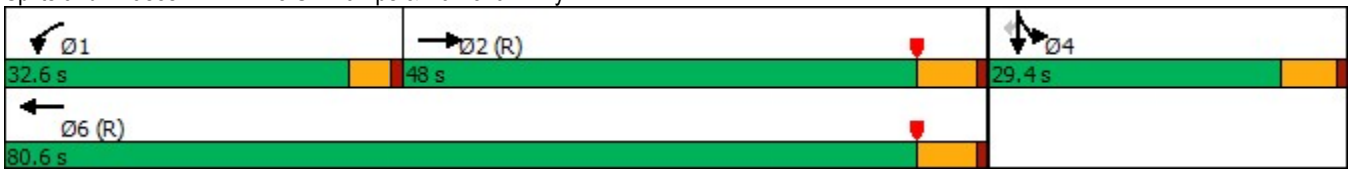
Notes

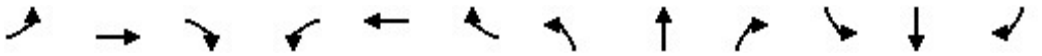
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	762	356	886	559	0	91
Future Volume (vph)	762	356	886	559	0	91
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	48.0	32.6	80.6	29.4	29.4	29.4
Total Split (%)	43.6%	29.6%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	46.3	25.8	76.6	21.9	21.9	21.9
Actuated g/C Ratio	0.42	0.23	0.70	0.20	0.20	0.20
v/c Ratio	0.83	0.87	0.37	0.85	0.85	0.24
Control Delay	32.4	42.8	2.6	66.0	66.0	9.0
Queue Delay	0.2	0.2	0.2	72.5	72.5	0.0
Total Delay	32.6	42.9	2.8	138.5	138.5	9.0
LOS	C	D	A	F	F	A
Approach Delay	32.6		14.3		120.3	
Approach LOS	C		B		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	762	433	356	886	0	0	0	0	559	0	91
Future Volume (veh/h)	0	762	433	356	886	0	0	0	0	559	0	91
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	778	264	363	904	0				570	0	51
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	2	2	2	2	0				2	2	2
Cap, veh/h	0	1171	397	395	2530	0				654	0	291
Arrive On Green	0.00	0.45	0.45	0.22	0.71	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	2698	884	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	531	511	363	904	0				570	0	51
Grp Sat Flow(s),veh/h/ln	0	1777	1711	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	25.8	25.8	21.9	10.8	0.0				17.1	0.0	3.0
Cycle Q Clear(g_c), s	0.0	25.8	25.8	21.9	10.8	0.0				17.1	0.0	3.0
Prop In Lane	0.00		0.52	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	799	769	395	2530	0				654	0	291
V/C Ratio(X)	0.00	0.66	0.66	0.92	0.36	0.00				0.87	0.00	0.18
Avail Cap(c_a), veh/h	0	799	769	455	2530	0				774	0	344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.85	0.85	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.8	23.8	41.9	6.1	0.0				43.7	0.0	37.9
Incr Delay (d2), s/veh	0.0	4.3	4.5	19.7	0.3	0.0				9.5	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	10.8	10.5	11.3	3.1	0.0				8.1	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.1	28.3	61.6	6.5	0.0				53.1	0.0	38.2
LnGrp LOS	A	C	C	E	A	A				D	A	D
Approach Vol, veh/h		1042			1267						621	
Approach Delay, s/veh		28.2			22.2						51.9	
Approach LOS		C			C						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	28.9	55.5		25.7		84.3						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	28.1	42.0		23.9		74.6						
Max Q Clear Time (g_c+I1), s	23.9	27.8		19.1		12.8						
Green Ext Time (p_c), s	0.4	3.4		1.1		3.9						

Intersection Summary			
HCM 6th Ctrl Delay		30.6	
HCM 6th LOS		C	

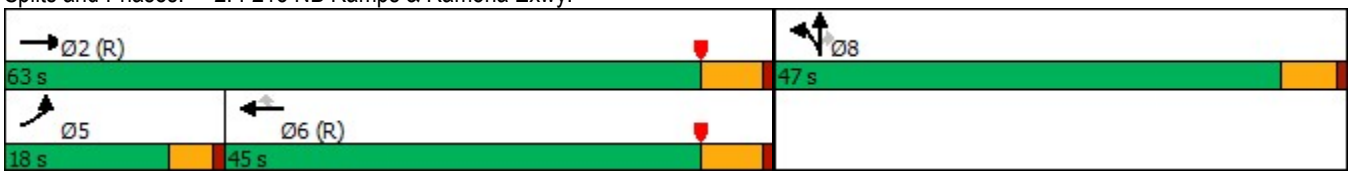
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	108	1213	818	449	424	4	415
Future Volume (vph)	108	1213	818	449	424	4	415
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	18.0	63.0	45.0	45.0	47.0	47.0	47.0
Total Split (%)	16.4%	57.3%	40.9%	40.9%	42.7%	42.7%	42.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	11.5	66.4	50.4	50.4	32.1	32.1	32.1
Actuated g/C Ratio	0.10	0.60	0.46	0.46	0.29	0.29	0.29
v/c Ratio	0.60	0.59	0.52	0.50	0.44	0.45	0.83
Control Delay	45.0	24.2	24.7	7.1	33.2	33.4	43.6
Queue Delay	0.0	49.8	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	74.0	24.7	7.1	33.2	33.4	43.6
LOS	D	E	C	A	C	C	D
Approach Delay		71.6	18.5			38.4	
Approach LOS		E	B			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 43.8	Intersection LOS: D
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	1213	0	0	818	449	424	4	415	0	0	0
Future Volume (veh/h)	108	1213	0	0	818	449	424	4	415	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	111	1251	0	0	843	329	440	0	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	136	2438	0	0	2021	901	746	0	332			
Arrive On Green	0.15	1.00	0.00	0.00	0.57	0.57	0.21	0.00	0.21			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	111	1251	0	0	843	329	440	0	279			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	6.6	0.0	0.0	0.0	14.8	12.4	12.3	0.0	18.6			
Cycle Q Clear(g_c), s	6.6	0.0	0.0	0.0	14.8	12.4	12.3	0.0	18.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	136	2438	0	0	2021	901	746	0	332			
V/C Ratio(X)	0.81	0.51	0.00	0.00	0.42	0.37	0.59	0.00	0.84			
Avail Cap(c_a), veh/h	219	2438	0	0	2021	901	1344	0	598			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.45	0.45	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	45.8	0.0	0.0	0.0	13.4	12.9	39.2	0.0	41.7			
Incr Delay (d2), s/veh	5.5	0.3	0.0	0.0	0.6	1.1	0.7	0.0	5.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	0.1	0.0	0.0	5.4	4.2	5.2	0.0	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	0.3	0.0	0.0	14.1	14.1	40.0	0.0	47.5			
LnGrp LOS	D	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		1362			1172			719				
Approach Delay, s/veh		4.5			14.1			42.9				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		81.5			12.9	68.6		28.5				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		57.0			13.5	39.0		41.5				
Max Q Clear Time (g_c+I1), s		2.0			8.6	16.8		20.6				
Green Ext Time (p_c), s		6.2			0.1	3.9		2.4				

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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	1475	153	22	1267	0	0	0	12	0	0	0
Future Vol, veh/h	0	1475	153	22	1267	0	0	0	12	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	125	-	-	130	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1553	161	23	1334	0	0	0	13	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1334	0	0	1714	0	0	-	-	857
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	513	-	-	366	-	-	0	0	301
Stage 1	-	-	-	-	-	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	513	-	-	366	-	-	-	0	301
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

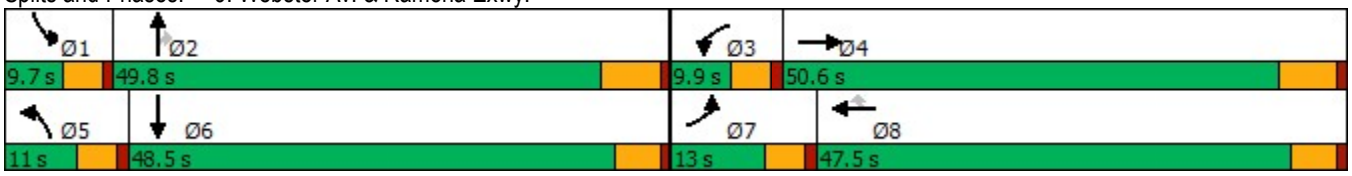
Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.5
HCM LOS			C

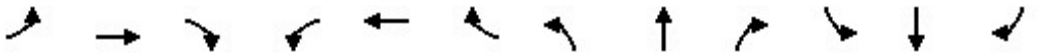
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	301	513	-	-	366	-	-
HCM Lane V/C Ratio	0.042	-	-	-	0.063	-	-
HCM Control Delay (s)	17.5	0	-	-	15.5	-	-
HCM Lane LOS	C	A	-	-	C	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	133	1317	15	1088	24	87	29	17	52	55
Future Volume (vph)	133	1317	15	1088	24	87	29	17	52	55
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	13.0	50.6	9.9	47.5	47.5	11.0	49.8	49.8	9.7	48.5
Total Split (%)	10.8%	42.2%	8.3%	39.6%	39.6%	9.2%	41.5%	41.5%	8.1%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.9	37.0	5.4	25.7	25.7	6.8	17.6	17.6	9.3	15.0
Actuated g/C Ratio	0.12	0.48	0.07	0.33	0.33	0.09	0.23	0.23	0.12	0.20
v/c Ratio	0.69	0.59	0.13	0.68	0.04	0.60	0.07	0.04	0.26	0.45
Control Delay	55.9	17.6	44.6	24.7	0.1	56.2	25.8	0.2	43.1	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	17.6	44.6	24.7	0.1	56.2	25.8	0.2	43.1	17.1
LOS	E	B	D	C	A	E	C	A	D	B
Approach Delay		21.1		24.4			42.4			23.2
Approach LOS		C		C			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.9	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	1317	37	15	1088	24	87	29	17	52	55	114
Future Volume (veh/h)	133	1317	37	15	1088	24	87	29	17	52	55	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	1401	33	16	1157	21	93	31	13	55	59	51
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	2213	52	34	1790	556	119	316	268	86	139	120
Arrive On Green	0.10	0.43	0.43	0.02	0.35	0.35	0.07	0.17	0.17	0.05	0.15	0.15
Sat Flow, veh/h	1781	5132	121	1781	5106	1585	1781	1870	1585	1781	926	800
Grp Volume(v), veh/h	141	929	505	16	1157	21	93	31	13	55	0	110
Grp Sat Flow(s),veh/h/ln	1781	1702	1849	1781	1702	1585	1781	1870	1585	1781	0	1726
Q Serve(g_s), s	5.0	13.9	13.9	0.6	12.4	0.6	3.3	0.9	0.4	2.0	0.0	3.8
Cycle Q Clear(g_c), s	5.0	13.9	13.9	0.6	12.4	0.6	3.3	0.9	0.4	2.0	0.0	3.8
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	178	1468	797	34	1790	556	119	316	268	86	0	259
V/C Ratio(X)	0.79	0.63	0.63	0.47	0.65	0.04	0.78	0.10	0.05	0.64	0.00	0.42
Avail Cap(c_a), veh/h	230	2325	1262	145	3330	1034	175	1254	1063	140	0	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	14.5	14.5	31.5	17.7	13.9	29.9	22.8	22.6	30.4	0.0	25.1
Incr Delay (d2), s/veh	10.0	0.5	0.8	3.6	0.4	0.0	6.8	0.1	0.1	2.9	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	2.4	4.2	4.7	0.3	4.0	0.2	1.6	0.4	0.2	0.9	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	14.9	15.3	35.2	18.1	13.9	36.7	23.0	22.7	33.3	0.0	26.2
LnGrp LOS	D	B	B	D	B	B	D	C	C	C	A	C
Approach Vol, veh/h		1575			1194			137			165	
Approach Delay, s/veh		17.2			18.3			32.2			28.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	17.2	5.9	34.2	9.0	16.0	11.1	29.0
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.1	43.6	5.3	44.4	6.4	* 43	8.4	* 42
Max Q Clear Time (g_c+I1), s	4.0	2.9	2.6	15.9	5.3	5.8	7.0	14.4
Green Ext Time (p_c), s	0.0	0.2	0.0	10.3	0.0	0.6	0.0	8.4

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

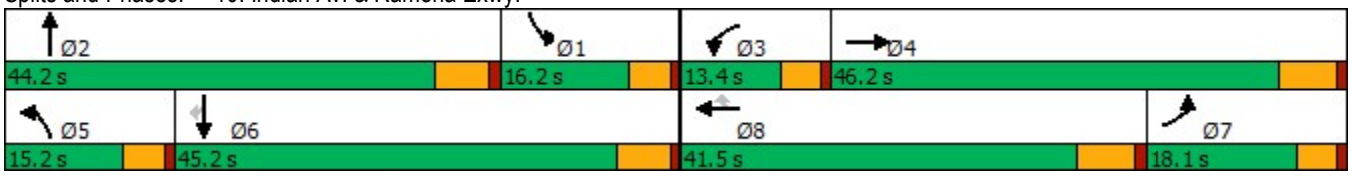
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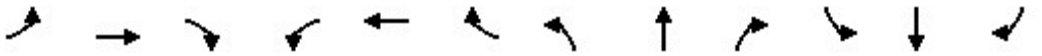
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	97	1215	46	973	69	70	103	71	165	83
Future Volume (vph)	97	1215	46	973	69	70	103	71	165	83
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	18.1	46.2	13.4	41.5	41.5	15.2	44.2	16.2	45.2	45.2
Total Split (%)	15.1%	38.5%	11.2%	34.6%	34.6%	12.7%	36.8%	13.5%	37.7%	37.7%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	10.3	30.4	7.3	25.2	25.2	8.3	15.1	8.5	15.3	15.3
Actuated g/C Ratio	0.14	0.40	0.10	0.33	0.33	0.11	0.20	0.11	0.20	0.20
v/c Ratio	0.42	0.64	0.28	0.61	0.11	0.38	0.28	0.38	0.24	0.19
Control Delay	42.8	22.7	45.5	25.8	0.4	45.7	17.3	44.8	29.9	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	22.7	45.5	25.8	0.4	45.7	17.3	44.8	29.9	0.9
LOS	D	C	D	C	A	D	B	D	C	A
Approach Delay		24.1		25.0			24.8		25.7	
Approach LOS		C		C			C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 75.6	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 58.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1215	31	46	973	69	70	103	96	71	165	83
Future Volume (veh/h)	97	1215	31	46	973	69	70	103	96	71	165	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	1279	27	48	1024	49	74	108	57	75	174	30
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1942	41	81	1604	498	103	368	183	104	639	285
Arrive On Green	0.08	0.38	0.38	0.05	0.31	0.31	0.06	0.16	0.16	0.06	0.18	0.18
Sat Flow, veh/h	1781	5145	109	1781	5106	1585	1781	2299	1142	1781	3554	1585
Grp Volume(v), veh/h	102	846	460	48	1024	49	74	82	83	75	174	30
Grp Sat Flow(s),veh/h/ln	1781	1702	1849	1781	1702	1585	1781	1777	1665	1781	1777	1585
Q Serve(g_s), s	3.5	12.9	12.9	1.7	10.7	1.4	2.5	2.5	2.8	2.6	2.6	0.7
Cycle Q Clear(g_c), s	3.5	12.9	12.9	1.7	10.7	1.4	2.5	2.5	2.8	2.6	2.6	0.7
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	148	1285	698	81	1604	498	103	284	267	104	639	285
V/C Ratio(X)	0.69	0.66	0.66	0.60	0.64	0.10	0.72	0.29	0.31	0.72	0.27	0.11
Avail Cap(c_a), veh/h	385	2181	1185	251	2887	896	302	1093	1024	331	2243	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	16.1	16.1	29.2	18.4	15.2	28.9	23.1	23.2	28.9	22.1	9.4
Incr Delay (d2), s/veh	2.1	0.6	1.1	2.6	0.4	0.1	3.5	0.6	0.7	3.5	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	1.4	4.0	4.5	0.7	3.5	0.4	1.1	1.0	1.0	1.1	1.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	16.7	17.2	31.8	18.8	15.2	32.4	23.6	23.8	32.4	22.3	9.6
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	A
Approach Vol, veh/h		1408			1121			239			279	
Approach Delay, s/veh		17.8			19.2			26.4			23.7	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	15.8	7.4	29.8	8.2	17.0	11.4	25.8
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	11.6	* 38	8.8	40.0	10.6	39.4	13.5	* 35
Max Q Clear Time (g_c+I1), s	4.6	4.8	3.7	14.9	4.5	4.6	5.5	12.7
Green Ext Time (p_c), s	0.0	0.9	0.0	8.7	0.0	1.1	0.1	6.9

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

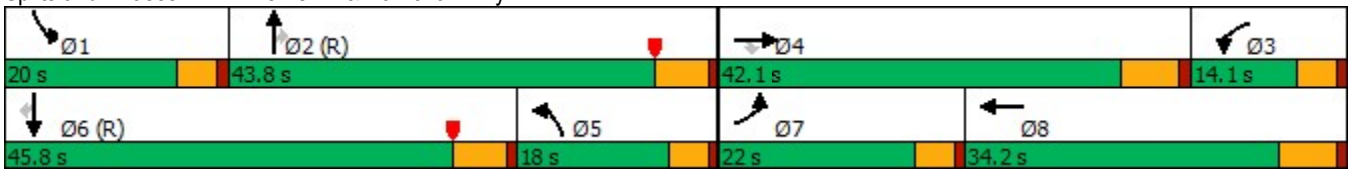
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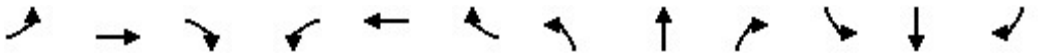
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	303	955	124	129	719	147	433	105	272	607	211
Future Volume (vph)	303	955	124	129	719	147	433	105	272	607	211
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	22.0	42.1	42.1	14.1	34.2	18.0	43.8	43.8	20.0	45.8	45.8
Total Split (%)	18.3%	35.1%	35.1%	11.8%	28.5%	15.0%	36.5%	36.5%	16.7%	38.2%	38.2%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.0	31.7	31.7	9.4	26.0	13.4	44.1	44.1	13.6	44.3	44.3
Actuated g/C Ratio	0.12	0.26	0.26	0.08	0.22	0.11	0.37	0.37	0.11	0.37	0.37
v/c Ratio	0.75	0.76	0.24	0.51	0.79	0.41	0.35	0.16	0.74	0.49	0.31
Control Delay	61.8	44.4	2.7	59.9	49.2	53.1	29.9	1.4	63.4	31.7	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
Total Delay	61.8	44.4	2.7	59.9	49.2	53.1	29.9	1.4	63.4	31.7	6.1
LOS	E	D	A	E	D	D	C	A	E	C	A
Approach Delay		44.5			50.7		30.5			34.6	
Approach LOS		D			D		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 41.0	Intersection LOS: D
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	955	124	129	719	97	147	433	105	272	607	211
Future Volume (veh/h)	303	955	124	129	719	97	147	433	105	272	607	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	322	1016	55	137	765	85	156	461	57	289	646	100
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	1252	389	192	949	105	574	1454	648	347	1185	528
Arrive On Green	0.11	0.25	0.25	0.06	0.20	0.20	0.17	0.41	0.41	0.10	0.33	0.33
Sat Flow, veh/h	3456	5106	1585	3456	4660	514	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	322	1016	55	137	557	293	156	461	57	289	646	100
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1770	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.0	22.5	3.3	4.7	18.7	18.9	4.7	10.6	1.9	9.9	17.8	3.8
Cycle Q Clear(g_c), s	11.0	22.5	3.3	4.7	18.7	18.9	4.7	10.6	1.9	9.9	17.8	3.8
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	1252	389	192	693	360	574	1454	648	347	1185	528
V/C Ratio(X)	0.85	0.81	0.14	0.71	0.80	0.81	0.27	0.32	0.09	0.83	0.55	0.19
Avail Cap(c_a), veh/h	501	1528	474	274	794	413	574	1454	648	443	1185	528
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	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	42.7	35.4	55.7	45.5	45.6	43.7	24.1	11.8	53.0	32.6	14.1
Incr Delay (d2), s/veh	6.0	2.1	0.1	1.7	4.8	9.5	0.1	0.6	0.3	8.4	1.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.3	1.2	2.0	8.0	8.9	2.0	4.4	1.0	4.6	7.7	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	44.8	35.5	57.4	50.3	55.0	43.8	24.7	12.1	61.4	34.4	14.9
LnGrp LOS	E	D	D	E	D	E	D	C	B	E	C	B
Approach Vol, veh/h		1393			987			674			1035	
Approach Delay, s/veh		47.6			52.7			28.0			40.0	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	54.9	12.9	35.6	25.7	45.8	17.8	30.6
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	15.4	38.0	9.5	* 36	13.4	* 40	17.4	28.0
Max Q Clear Time (g_c+I1), s	11.9	12.6	6.7	24.5	6.7	19.8	13.0	20.9
Green Ext Time (p_c), s	0.2	3.0	0.1	4.9	0.1	4.2	0.3	2.8

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Notes

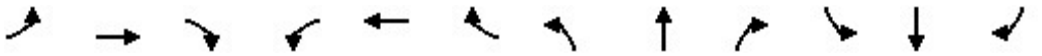
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	12	1397	65	94	994	129	29	59	285	104	21
Future Volume (vph)	12	1397	65	94	994	129	29	59	285	104	21
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	9.6	39.8	39.8	11.9	42.1	42.1	10.9	43.6	24.7	57.4	57.4
Total Split (%)	8.0%	33.2%	33.2%	9.9%	35.1%	35.1%	9.1%	36.3%	20.6%	47.8%	47.8%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.1	34.0	34.0	7.4	44.4	44.4	5.8	15.1	20.3	33.8	33.8
Actuated g/C Ratio	0.05	0.35	0.35	0.08	0.45	0.45	0.06	0.15	0.21	0.35	0.35
v/c Ratio	0.14	0.82	0.11	0.74	0.45	0.17	0.29	0.46	0.81	0.17	0.04
Control Delay	52.3	35.2	0.3	77.6	21.4	3.6	54.5	25.8	56.5	23.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	35.2	0.3	77.6	21.4	3.6	54.5	25.8	56.5	23.8	0.1
LOS	D	D	A	E	C	A	D	C	E	C	A
Approach Delay		33.8			23.9			30.7		45.3	
Approach LOS		C			C			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 31.4	Intersection LOS: C
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1397	65	94	994	129	29	59	82	285	104	21
Future Volume (veh/h)	12	1397	65	94	994	129	29	59	82	285	104	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	1455	33	98	1035	82	30	61	43	297	108	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	26	1828	556	125	2112	642	54	123	87	336	541	459
Arrive On Green	0.01	0.36	0.36	0.07	0.41	0.41	0.03	0.12	0.12	0.19	0.29	0.29
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	1021	720	1781	1870	1585
Grp Volume(v), veh/h	12	1455	33	98	1035	82	30	0	104	297	108	13
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1741	1781	1870	1585
Q Serve(g_s), s	0.6	21.1	1.1	4.5	12.3	1.2	1.4	0.0	4.6	13.4	3.6	0.5
Cycle Q Clear(g_c), s	0.6	21.1	1.1	4.5	12.3	1.2	1.4	0.0	4.6	13.4	3.6	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	26	1828	556	125	2112	642	54	0	211	336	541	459
V/C Ratio(X)	0.46	0.80	0.06	0.78	0.49	0.13	0.56	0.00	0.49	0.88	0.20	0.03
Avail Cap(c_a), veh/h	108	2081	632	158	2224	676	136	0	807	434	1180	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	23.8	17.4	37.7	17.8	2.9	39.4	0.0	33.9	32.6	22.1	21.0
Incr Delay (d2), s/veh	4.7	2.0	0.0	13.9	0.2	0.1	3.4	0.0	1.8	13.5	0.2	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	0.3	7.7	0.4	2.3	4.2	0.8	0.6	0.0	2.0	6.7	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	25.7	17.4	51.6	18.0	3.0	42.8	0.0	35.7	46.0	22.3	21.0
LnGrp LOS	D	C	B	D	B	A	D	A	D	D	C	C
Approach Vol, veh/h		1500			1215			134			418	
Approach Delay, s/veh		25.7			19.7			37.3			39.1	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	15.4	10.4	35.7	7.1	29.3	5.8	40.3
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	20.1	* 38	7.3	33.6	6.3	52.0	5.0	35.9
Max Q Clear Time (g_c+I1), s	15.4	6.6	6.5	23.1	3.4	5.6	2.6	14.3
Green Ext Time (p_c), s	0.2	0.5	0.0	6.4	0.0	0.6	0.0	7.0

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

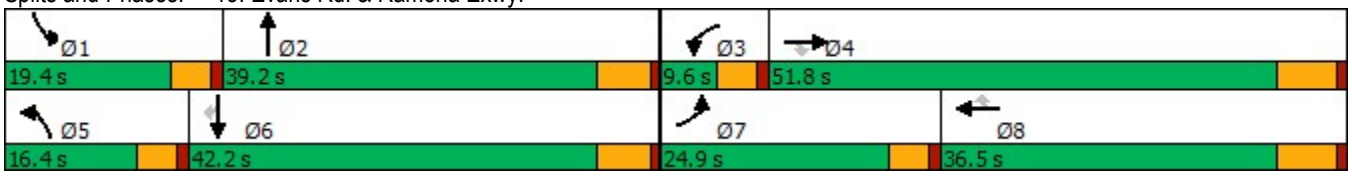
Notes

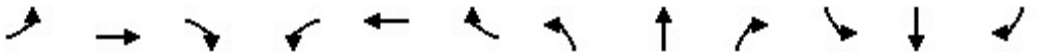
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	387	939	347	18	583	192	198	286	262	562	436
Future Volume (vph)	387	939	347	18	583	192	198	286	262	562	436
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	24.9	51.8	51.8	9.6	36.5	36.5	16.4	39.2	19.4	42.2	42.2
Total Split (%)	20.8%	43.2%	43.2%	8.0%	30.4%	30.4%	13.7%	32.7%	16.2%	35.2%	35.2%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	16.0	41.7	41.7	5.8	24.7	24.7	10.4	23.8	12.3	25.7	25.7
Actuated g/C Ratio	0.17	0.45	0.45	0.06	0.26	0.26	0.11	0.25	0.13	0.27	0.27
v/c Ratio	0.68	0.42	0.39	0.16	0.64	0.35	0.53	0.34	0.59	0.59	0.65
Control Delay	44.8	20.1	3.8	53.7	35.3	6.6	48.1	30.6	46.9	33.0	12.8
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	44.8	20.1	3.8	53.7	35.3	6.6	48.1	30.6	46.9	33.0	12.8
LOS	D	C	A	D	D	A	D	C	D	C	B
Approach Delay		22.4			28.8			37.6		28.9	
Approach LOS		C			C			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.5	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	387	939	347	18	583	192	198	286	12	262	562	436
Future Volume (veh/h)	387	939	347	18	583	192	198	286	12	262	562	436
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	395	958	0	18	595	118	202	292	9	267	573	349
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	517	1905		50	895	399	313	998	31	383	1079	481
Arrive On Green	0.15	0.37	0.00	0.03	0.25	0.25	0.09	0.28	0.28	0.11	0.30	0.30
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3520	108	3456	3554	1585
Grp Volume(v), veh/h	395	958	0	18	595	118	202	147	154	267	573	349
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1851	1728	1777	1585
Q Serve(g_s), s	8.6	11.3	0.0	0.8	11.8	4.7	4.4	5.1	5.1	5.8	10.5	15.4
Cycle Q Clear(g_c), s	8.6	11.3	0.0	0.8	11.8	4.7	4.4	5.1	5.1	5.8	10.5	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	517	1905		50	895	399	313	504	525	383	1079	481
V/C Ratio(X)	0.76	0.50		0.36	0.66	0.30	0.64	0.29	0.29	0.70	0.53	0.73
Avail Cap(c_a), veh/h	922	3116		127	1475	658	547	799	832	679	1733	773
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	18.9	0.0	37.4	26.3	23.7	34.4	21.9	21.9	33.6	22.6	24.3
Incr Delay (d2), s/veh	0.9	0.2	0.0	1.6	0.9	0.4	0.8	0.3	0.3	0.9	0.4	2.1
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	3.3	3.8	0.0	0.3	4.5	1.6	1.8	2.0	2.1	2.3	4.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	19.2	0.0	38.9	27.2	24.1	35.2	22.2	22.2	34.4	23.0	26.4
LnGrp LOS	C	B		D	C	C	D	C	C	C	C	C
Approach Vol, veh/h		1353	A		731			503			1189	
Approach Delay, s/veh		23.2			27.0			27.5			26.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	26.2	6.2	33.2	11.1	27.8	15.7	23.7
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	14.8	33.4	5.0	45.3	11.8	36.4	20.3	30.0
Max Q Clear Time (g_c+I1), s	7.8	7.1	2.8	13.3	6.4	17.4	10.6	13.8
Green Ext Time (p_c), s	0.3	1.5	0.0	6.5	0.2	4.6	0.5	3.4

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 3.3: EXISTING (2023) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

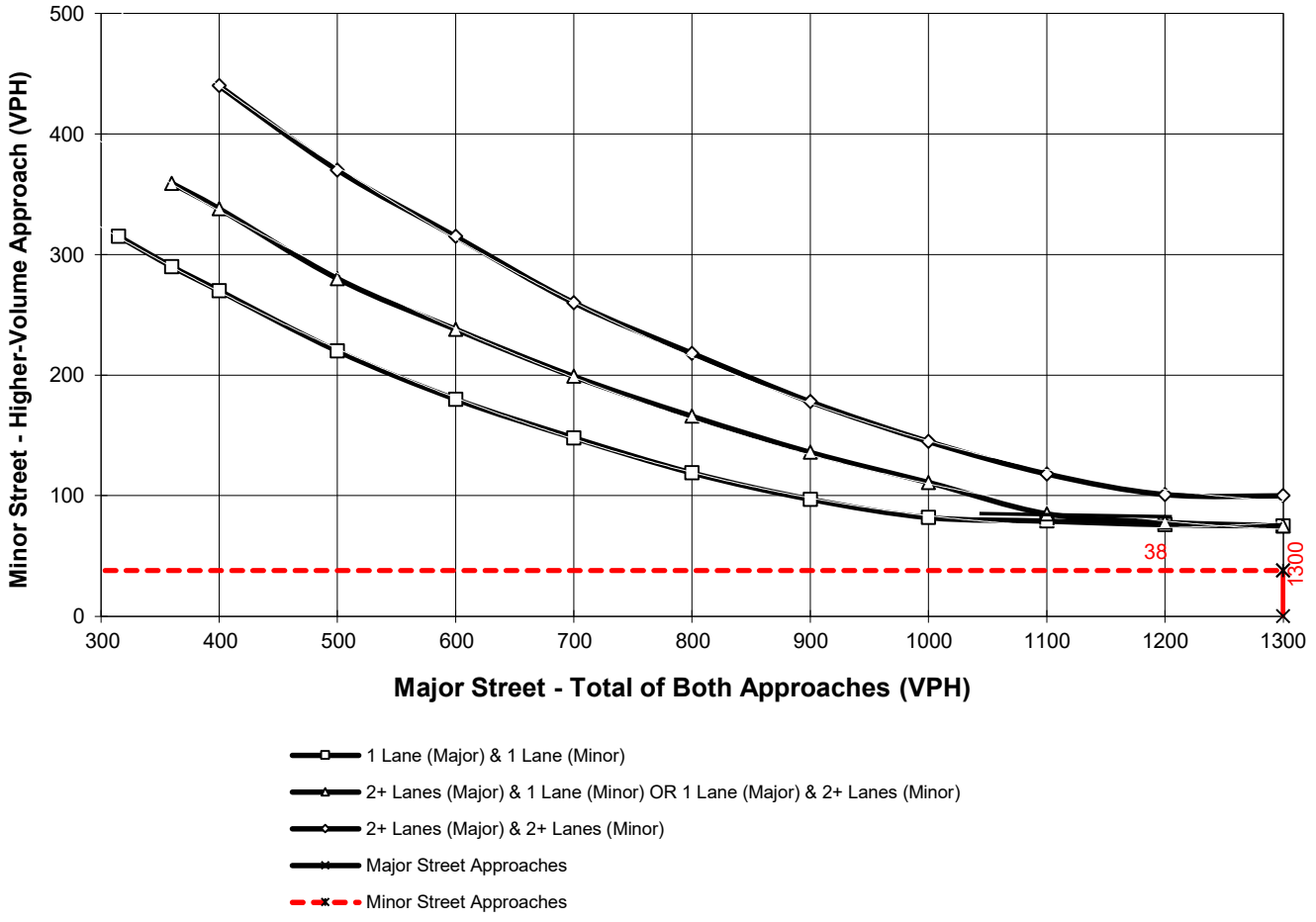
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) Conditions - Weekday AM Peak Hour**

Major Street Name = **Ramona Exwy.** Total of Both Approaches (VPH) = **2856**
Number of Approach Lanes Major Street = **3**

Minor Street Name = **Nevada Rd.** High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

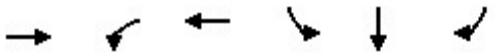


*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.4: EXISTING (2023) CONDITIONS QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	994	337	913	226	229	118
v/c Ratio	0.63	0.82	0.36	0.76	0.76	0.31
Control Delay	22.5	45.6	2.5	58.6	59.1	9.0
Queue Delay	0.0	0.1	0.3	2.6	2.7	0.0
Total Delay	22.5	45.7	2.8	61.1	61.8	9.0
Queue Length 50th (ft)	233	117	29	158	161	0
Queue Length 95th (ft)	348	125	37	242	245	47
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1577	506	2537	359	360	430
Starvation Cap Reductn	0	5	868	0	0	0
Spillback Cap Reductn	15	0	0	57	57	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.67	0.55	0.75	0.76	0.27

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	88	913	885	546	169	173	586
v/c Ratio	0.60	0.51	0.61	0.61	0.26	0.27	0.89
Control Delay	61.2	26.4	30.4	10.6	23.1	23.2	43.8
Queue Delay	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	29.4	30.4	10.6	23.1	23.2	43.8
Queue Length 50th (ft)	66	316	283	65	81	83	325
Queue Length 95th (ft)	m106	426	365	195	128	131	#479
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	156	1807	1440	891	725	728	728
Starvation Cap Reductn	0	758	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	0.56	0.87	0.61	0.61	0.23	0.24	0.80

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.

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	1275	179	14	1388	0	0	0	38	0	0	0
Future Vol, veh/h	0	1275	179	14	1388	0	0	0	38	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	125	-	-	130	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1301	183	14	1416	0	0	0	39	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1416	0	0	1484	0	0	-	-	742
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	477	-	-	449	-	-	0	0	358
Stage 1	-	-	-	-	-	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	477	-	-	449	-	-	-	0	358
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.3
HCM LOS			C

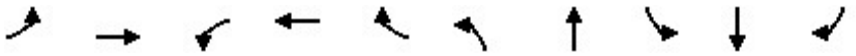
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	358	477	-	-	449	-	-
HCM Lane V/C Ratio	0.108	-	-	-	0.032	-	-
HCM Control Delay (s)	16.3	0	-	-	13.3	-	-
HCM Lane LOS	C	A	-	-	B	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	198	1141	21	1269	31	81	61	14	33	97
v/c Ratio	0.86	0.46	0.16	0.69	0.05	0.47	0.15	0.03	0.27	0.25
Control Delay	70.1	16.2	45.0	24.2	0.1	50.7	27.4	0.1	47.9	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	16.2	45.0	24.2	0.1	50.7	27.4	0.1	47.9	10.6
Queue Length 50th (ft)	86	96	9	167	0	35	24	0	14	6
Queue Length 95th (ft)	#354	298	44	354	0	#169	63	0	#63	45
Internal Link Dist (ft)		461		4020			2364			2550
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	231	3163	140	3003	981	174	1108	987	123	1007
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	0.86	0.36	0.15	0.42	0.03	0.47	0.06	0.01	0.27	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	116	1029	33	1272	60	30	120	19	68	34
v/c Ratio	0.40	0.34	0.18	0.49	0.07	0.16	0.14	0.11	0.08	0.07
Control Delay	40.1	14.0	44.0	20.2	0.1	44.1	22.6	44.7	28.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	14.0	44.0	20.2	0.1	44.1	22.6	44.7	28.0	0.2
Queue Length 50th (ft)	42	86	12	132	0	11	16	7	12	0
Queue Length 95th (ft)	146	256	59	377	0	56	48	40	36	0
Internal Link Dist (ft)		4020		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	525	3627	221	3156	1049	218	2141	191	2173	1037
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	0.22	0.28	0.15	0.40	0.06	0.14	0.06	0.10	0.03	0.03

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	326	613	74	87	1082	151	534	65	123	316	215
v/c Ratio	0.75	0.53	0.15	0.14	0.82	0.53	0.41	0.09	0.54	0.26	0.31
Control Delay	61.3	43.6	0.6	40.2	46.4	59.9	30.7	0.3	63.1	29.6	5.2
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	43.6	0.6	40.2	46.4	59.9	30.7	0.3	63.1	29.6	5.2
Queue Length 50th (ft)	126	165	0	27	280	58	166	0	47	93	0
Queue Length 95th (ft)	173	188	0	53	333	94	226	0	80	136	55
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	514	1877	695	625	1405	286	1298	687	251	1238	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	0.63	0.33	0.11	0.14	0.77	0.53	0.41	0.09	0.49	0.26	0.31

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	17	731	38	87	1219	470	33	256	78	38	6
v/c Ratio	0.12	0.47	0.06	0.43	0.60	0.52	0.22	0.57	0.38	0.06	0.01
Control Delay	46.7	25.2	0.2	46.8	22.3	4.9	46.9	29.2	44.6	21.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	25.2	0.2	46.8	22.3	4.9	46.9	29.2	44.6	21.4	0.0
Queue Length 50th (ft)	7	99	0	35	134	0	13	83	31	10	0
Queue Length 95th (ft)	37	208	0	118	352	77	58	201	104	40	0
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	173	2556	856	282	2867	1079	173	1098	363	1301	1123
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	0.10	0.29	0.04	0.31	0.43	0.44	0.19	0.23	0.21	0.03	0.01

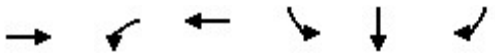
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	336	430	178	18	1006	310	403	514	193	261	404
v/c Ratio	0.75	0.17	0.21	0.19	0.82	0.44	0.78	0.54	0.58	0.34	0.81
Control Delay	57.6	17.9	4.0	58.5	39.8	10.2	56.5	35.1	55.7	36.5	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	17.9	4.0	58.5	39.8	10.2	56.5	35.1	55.7	36.5	33.3
Queue Length 50th (ft)	120	56	0	13	342	37	144	163	69	83	144
Queue Length 95th (ft)	#196	104	44	39	#483	121	#230	217	114	121	266
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	497	2539	879	95	1333	742	576	1297	391	1114	634
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	0.68	0.17	0.20	0.19	0.75	0.42	0.70	0.40	0.49	0.23	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1220	363	904	285	285	93
v/c Ratio	0.83	0.87	0.37	0.85	0.85	0.24
Control Delay	32.4	42.8	2.6	66.0	66.0	9.0
Queue Delay	0.2	0.2	0.2	72.5	72.5	0.0
Total Delay	32.6	42.9	2.8	138.5	138.5	9.0
Queue Length 50th (ft)	389	60	16	201	201	0
Queue Length 95th (ft)	#528	#348	35	#336	#336	43
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1477	452	2466	365	365	416
Starvation Cap Reductn	0	3	674	0	0	0
Spillback Cap Reductn	21	0	0	259	259	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.81	0.50	2.69	2.69	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	111	1251	843	463	218	223	428
v/c Ratio	0.60	0.59	0.52	0.50	0.44	0.45	0.83
Control Delay	45.0	24.2	24.7	7.1	33.2	33.4	43.6
Queue Delay	0.0	49.8	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	74.0	24.7	7.1	33.2	33.4	43.6
Queue Length 50th (ft)	82	474	223	33	129	133	235
Queue Length 95th (ft)	m98	541	333	133	181	186	323
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	219	2136	1622	932	634	636	643
Starvation Cap Reductn	0	1106	0	0	0	0	0
Spillback Cap Reductn	0	0	17	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	1.21	0.53	0.50	0.34	0.35	0.67

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

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	1475	153	22	1267	0	0	0	12	0	0	0
Future Vol, veh/h	0	1475	153	22	1267	0	0	0	12	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	125	-	-	130	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1553	161	23	1334	0	0	0	13	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1334	0	0	1714	0	0	-	-	857
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	513	-	-	366	-	-	0	0	301
Stage 1	-	-	-	-	-	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	513	-	-	366	-	-	-	0	301
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.5
HCM LOS			C

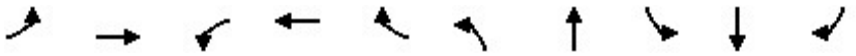
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	301	513	-	-	366	-	-
HCM Lane V/C Ratio	0.042	-	-	-	0.063	-	-
HCM Control Delay (s)	17.5	0	-	-	15.5	-	-
HCM Lane LOS	C	A	-	-	C	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	141	1440	16	1157	26	93	31	18	55	180
v/c Ratio	0.69	0.59	0.13	0.68	0.04	0.60	0.07	0.04	0.26	0.45
Control Delay	55.9	17.6	44.6	24.7	0.1	56.2	25.8	0.2	43.1	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	17.6	44.6	24.7	0.1	56.2	25.8	0.2	43.1	17.1
Queue Length 50th (ft)	57	134	6	145	0	37	11	0	22	32
Queue Length 95th (ft)	#253	400	36	312	0	#181	38	0	#114	98
Internal Link Dist (ft)		461		4020			2364			2550
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	204	3090	128	2961	968	155	1115	993	213	1037
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	0.69	0.47	0.13	0.39	0.03	0.60	0.03	0.02	0.26	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	102	1312	48	1024	73	74	209	75	174	87
v/c Ratio	0.42	0.64	0.28	0.61	0.11	0.38	0.28	0.38	0.24	0.19
Control Delay	42.8	22.7	45.5	25.8	0.4	45.7	17.3	44.8	29.9	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	22.7	45.5	25.8	0.4	45.7	17.3	44.8	29.9	0.9
Queue Length 50th (ft)	43	179	21	142	0	32	23	33	38	0
Queue Length 95th (ft)	134	389	77	306	0	106	60	106	77	0
Internal Link Dist (ft)		4020		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	366	3011	238	2743	935	286	1942	313	2082	1001
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	0.28	0.44	0.20	0.37	0.08	0.26	0.11	0.24	0.08	0.09

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	322	1016	132	137	868	156	461	112	289	646	224
v/c Ratio	0.75	0.76	0.24	0.51	0.79	0.41	0.35	0.16	0.74	0.49	0.31
Control Delay	61.8	44.4	2.7	59.9	49.2	53.1	29.9	1.4	63.4	31.7	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
Total Delay	61.8	44.4	2.7	59.9	49.2	53.1	29.9	1.4	63.4	31.7	6.1
Queue Length 50th (ft)	125	263	0	53	226	58	140	0	112	205	8
Queue Length 95th (ft)	172	302	20	87	275	93	196	9	158	274	64
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	497	1521	596	282	1178	383	1300	688	440	1307	716
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	0.65	0.67	0.22	0.49	0.74	0.41	0.35	0.16	0.66	0.49	0.31

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	13	1455	68	98	1035	134	30	146	297	108	22
v/c Ratio	0.14	0.82	0.11	0.74	0.45	0.17	0.29	0.46	0.81	0.17	0.04
Control Delay	52.3	35.2	0.3	77.6	21.4	3.6	54.5	25.8	56.5	23.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	35.2	0.3	77.6	21.4	3.6	54.5	25.8	56.5	23.8	0.1
Queue Length 50th (ft)	7	271	0	57	133	0	17	47	163	49	0
Queue Length 95th (ft)	32	#534	0	#184	309	33	55	100	#416	87	0
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	91	1765	639	133	2309	788	115	708	367	1001	902
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	0.14	0.82	0.11	0.74	0.45	0.17	0.26	0.21	0.81	0.11	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	395	958	354	18	595	196	202	304	267	573	445
v/c Ratio	0.68	0.42	0.39	0.16	0.64	0.35	0.53	0.34	0.59	0.59	0.65
Control Delay	44.8	20.1	3.8	53.7	35.3	6.6	48.1	30.6	46.9	33.0	12.8
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	44.8	20.1	3.8	53.7	35.3	6.6	48.1	30.6	46.9	33.0	12.8
Queue Length 50th (ft)	113	126	0	10	163	0	58	76	77	154	46
Queue Length 95th (ft)	202	238	58	39	274	56	117	134	147	246	166
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	799	2710	1009	110	1282	698	474	1382	589	1507	871
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.35	0.35	0.16	0.46	0.28	0.43	0.22	0.45	0.38	0.51

Intersection Summary

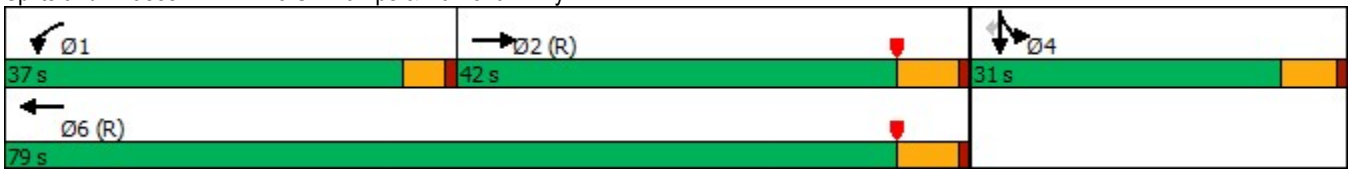
APPENDIX 5.1: E+P (WITH PROJECT IMPROVEMENTS) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

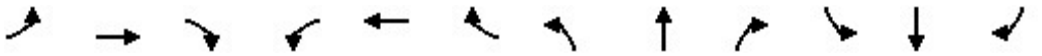
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Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	560	392	885	546	2	112
Future Volume (vph)	560	392	885	546	2	112
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	42.0	37.0	79.0	31.0	31.0	31.0
Total Split (%)	38.2%	33.6%	71.8%	28.2%	28.2%	28.2%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	41.8	29.3	75.6	22.9	22.9	22.9
Actuated g/C Ratio	0.38	0.27	0.69	0.21	0.21	0.21
v/c Ratio	0.74	0.88	0.38	0.82	0.83	0.28
Control Delay	29.2	41.1	2.8	60.7	61.3	8.2
Queue Delay	0.2	0.6	0.4	62.4	62.3	0.0
Total Delay	29.5	41.7	3.2	123.1	123.6	8.2
LOS	C	D	A	F	F	A
Approach Delay	29.5		15.0		103.8	
Approach LOS	C		B		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	560	404	392	885	0	0	0	0	546	2	112
Future Volume (veh/h)	0	560	404	392	885	0	0	0	0	546	2	112
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	589	276	413	932	0				576	0	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	980	459	446	2517	0				667	0	297
Arrive On Green	0.00	0.42	0.42	0.25	0.71	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	2443	1100	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	445	420	413	932	0				576	0	72
Grp Sat Flow(s),veh/h/ln	0	1777	1672	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	21.4	21.5	24.9	11.4	0.0				17.2	0.0	4.3
Cycle Q Clear(g_c), s	0.0	21.4	21.5	24.9	11.4	0.0				17.2	0.0	4.3
Prop In Lane	0.00		0.66	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	741	697	446	2517	0				667	0	297
V/C Ratio(X)	0.00	0.60	0.60	0.93	0.37	0.00				0.86	0.00	0.24
Avail Cap(c_a), veh/h	0	741	697	526	2517	0				826	0	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.69	0.69	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.9	25.0	40.2	6.3	0.0				43.3	0.0	38.1
Incr Delay (d2), s/veh	0.0	3.6	3.8	15.7	0.3	0.0				8.0	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	9.1	8.6	12.2	3.3	0.0				8.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.5	28.8	55.9	6.6	0.0				51.3	0.0	38.5
LnGrp LOS	A	C	C	E	A	A				D	A	D
Approach Vol, veh/h		865			1345						648	
Approach Delay, s/veh		28.7			21.8						49.9	
Approach LOS		C			C						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	51.9		26.1		83.9						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	32.5	36.0		25.5		73.0						
Max Q Clear Time (g_c+I1), s	26.9	23.5		19.2		13.4						
Green Ext Time (p_c), s	0.7	2.6		1.3		4.1						

Intersection Summary		
HCM 6th Ctrl Delay		30.2
HCM 6th LOS		C

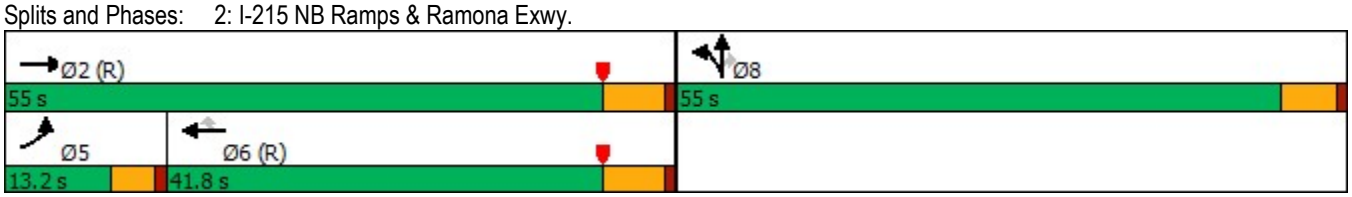
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	85	1022	948	638	329	3	646
Future Volume (vph)	85	1022	948	638	329	3	646
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.2	55.0	41.8	41.8	55.0	55.0	55.0
Total Split (%)	12.0%	50.0%	38.0%	38.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	8.5	51.7	41.0	41.0	46.8	46.8	46.8
Actuated g/C Ratio	0.08	0.47	0.37	0.37	0.43	0.43	0.43
v/c Ratio	0.65	0.63	0.74	0.76	0.24	0.24	0.93
Control Delay	61.5	32.9	35.8	16.9	20.5	20.5	47.5
Queue Delay	0.0	50.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	82.9	35.9	16.9	20.5	20.5	47.5
LOS	E	F	D	B	C	C	D
Approach Delay		81.2	28.2			38.3	
Approach LOS		F	C			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 46.9	Intersection LOS: D
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1022	0	0	948	638	329	3	646	0	0	0
Future Volume (veh/h)	85	1022	0	0	948	638	329	3	646	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	88	1054	0	0	977	538	341	0	460			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	110	2044	0	0	1678	749	1141	0	508			
Arrive On Green	0.12	1.00	0.00	0.00	0.47	0.47	0.32	0.00	0.32			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	88	1054	0	0	977	538	341	0	460			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	5.3	0.0	0.0	0.0	22.0	29.8	7.9	0.0	30.6			
Cycle Q Clear(g_c), s	5.3	0.0	0.0	0.0	22.0	29.8	7.9	0.0	30.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	110	2044	0	0	1678	749	1141	0	508			
V/C Ratio(X)	0.80	0.52	0.00	0.00	0.58	0.72	0.30	0.00	0.91			
Avail Cap(c_a), veh/h	141	2044	0	0	1678	749	1603	0	713			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.57	0.57	0.00	0.00	0.39	0.39	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.5	0.0	0.0	0.0	21.1	23.2	28.1	0.0	35.8			
Incr Delay (d2), s/veh	13.2	0.5	0.0	0.0	0.6	2.4	0.1	0.0	11.8			
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	2.5	0.2	0.0	0.0	8.5	10.5	3.3	0.0	12.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	0.5	0.0	0.0	21.7	25.5	28.2	0.0	47.6			
LnGrp LOS	E	A	A	A	C	C	C	A	D			
Approach Vol, veh/h		1142			1515			801				
Approach Delay, s/veh		5.2			23.1			39.4				
Approach LOS		A			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.3			11.3	57.9		40.7				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		49.0			8.7	35.8		49.5				
Max Q Clear Time (g_c+I1), s		2.0			7.3	31.8		32.6				
Green Ext Time (p_c), s		4.8			0.0	2.1		2.7				

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

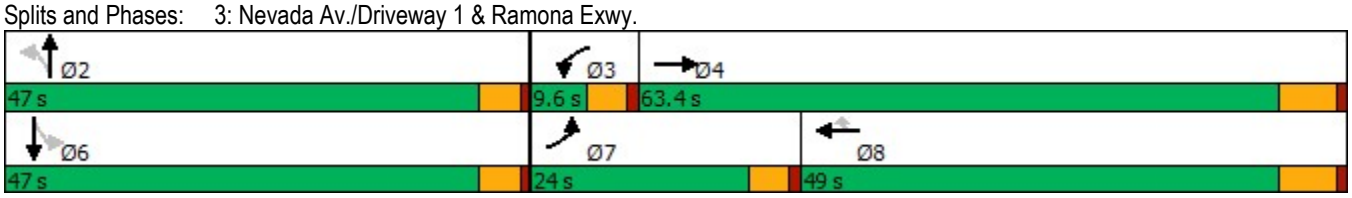
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	294	1195	14	1336	181	19	212	18
Future Volume (vph)	294	1195	14	1336	181	19	212	18
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					8		6	
Detector Phase	7	4	3	8	8	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	9.6	24.2	24.2	45.6	45.6	45.6
Total Split (s)	24.0	63.4	9.6	49.0	49.0	47.0	47.0	47.0
Total Split (%)	20.0%	52.8%	8.0%	40.8%	40.8%	39.2%	39.2%	39.2%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)	19.6	65.7	5.0	43.1	43.1	23.1	23.1	23.1
Actuated g/C Ratio	0.19	0.65	0.05	0.43	0.43	0.23	0.23	0.23
v/c Ratio	0.88	0.59	0.16	0.86	0.25	0.14	0.71	0.49
Control Delay	68.3	13.9	54.8	34.5	7.7	14.1	48.4	7.8
Queue Delay	0.0	0.5	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	68.3	14.3	54.8	35.1	7.7	14.1	48.4	7.8
LOS	E	B	D	D	A	B	D	A
Approach Delay		23.8		32.0		14.1		25.8
Approach LOS		C		C		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.3	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 84.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Nevada Av./Driveway 1 & Ramona Exwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	1195	179	14	1336	181	0	19	38	212	18	250
Future Volume (veh/h)	294	1195	179	14	1336	181	0	19	38	212	18	250
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	300	1219	183	14	1363	139	0	19	29	216	18	194
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	1892	283	29	1585	671	0	147	224	346	30	323
Arrive On Green	0.19	0.59	0.59	0.02	0.42	0.42	0.00	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3180	475	1781	3741	1585	0	668	1019	1357	136	1470
Grp Volume(v), veh/h	300	714	688	14	1363	139	0	0	48	216	0	212
Grp Sat Flow(s),veh/h/ln	1781	1870	1785	1781	1870	1585	0	0	1687	1357	0	1606
Q Serve(g_s), s	15.0	22.8	23.2	0.7	30.1	5.1	0.0	0.0	2.1	13.9	0.0	10.8
Cycle Q Clear(g_c), s	15.0	22.8	23.2	0.7	30.1	5.1	0.0	0.0	2.1	15.9	0.0	10.8
Prop In Lane	1.00		0.27	1.00		1.00	0.00		0.60	1.00		0.92
Lane Grp Cap(c), veh/h	334	1113	1062	29	1585	671	0	0	371	346	0	353
V/C Ratio(X)	0.90	0.64	0.65	0.48	0.86	0.21	0.00	0.00	0.13	0.62	0.00	0.60
Avail Cap(c_a), veh/h	379	1173	1119	98	1755	744	0	0	784	679	0	747
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.2	12.1	12.2	44.5	23.8	16.6	0.0	0.0	28.6	35.0	0.0	32.0
Incr Delay (d2), s/veh	20.2	1.1	1.2	4.5	4.3	0.2	0.0	0.0	0.2	1.8	0.0	1.6
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	7.9	7.8	7.6	0.3	12.5	1.7	0.0	0.0	0.8	4.7	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	13.2	13.4	49.0	28.1	16.8	0.0	0.0	28.7	36.8	0.0	33.6
LnGrp LOS	E	B	B	D	C	B	A	A	C	D	A	C
Approach Vol, veh/h		1702			1516			48			428	
Approach Delay, s/veh		20.9			27.2			28.7			35.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.7	6.1	60.5		24.7	21.7	44.8				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		42.4	5.0	57.2		42.4	19.4	42.8				
Max Q Clear Time (g_c+I1), s		4.1	2.7	25.2		17.9	17.0	32.1				
Green Ext Time (p_c), s		0.2	0.0	10.8		2.1	0.1	6.5				

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1444	1478	56	0	53
Future Vol, veh/h	0	1444	1478	56	0	53
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, %	2	2	2	2	2	2
Mvmt Flow	0	1570	1607	61	0	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	834
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	267
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	267
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

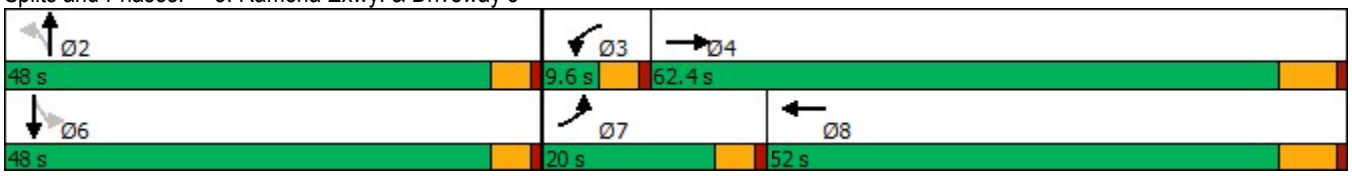
Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.2
HCM LOS			C

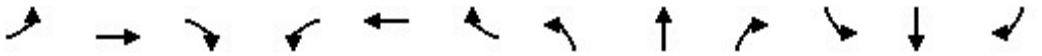
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	267
HCM Lane V/C Ratio	-	-	-	0.216
HCM Control Delay (s)	-	-	-	22.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.8

Lane Group	EBL	EBT	WBT	SBL	SBT	Ø2	Ø3
Lane Configurations							
Traffic Volume (vph)	128	1317	1482	122	0		
Future Volume (vph)	128	1317	1482	122	0		
Turn Type	Prot	NA	NA	Perm	NA		
Protected Phases	7	4	8		6	2	3
Permitted Phases				6			
Detector Phase	7	4	8	6	6		
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	24.2	24.2	45.6	45.6	45.6	9.6
Total Split (s)	20.0	62.4	52.0	48.0	48.0	48.0	9.6
Total Split (%)	16.7%	52.0%	43.3%	40.0%	40.0%	40%	8%
Yellow Time (s)	3.6	5.2	5.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.6	6.2	6.2	4.6	4.6		
Lead/Lag	Lead	Lag	Lag				Lead
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Recall Mode	None	None	None	Min	Min	Min	None
Act Effct Green (s)	11.0	50.5	34.6	17.0	17.0		
Actuated g/C Ratio	0.14	0.64	0.44	0.22	0.22		
v/c Ratio	0.57	0.40	0.68	0.44	0.11		
Control Delay	46.1	8.3	20.8	33.0	0.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	46.1	8.3	20.8	33.0	0.4		
LOS	D	A	C	C	A		
Approach Delay		11.6	20.8		23.5		
Approach LOS		B	C		C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 79	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 16.8	Intersection LOS: B
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Ramona Exwy. & Driveway 3





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	1317	0	0	1482	52	0	0	0	122	0	51
Future Volume (veh/h)	128	1317	0	0	1482	52	0	0	0	122	0	51
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	1432	0	0	1611	57	0	0	0	133	0	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	3662	0	3	2562	91	120	312	0	418	0	265
Arrive On Green	0.10	0.65	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.17	0.00	0.17
Sat Flow, veh/h	1781	5611	0	1781	5386	191	1349	1870	0	1781	0	1585
Grp Volume(v), veh/h	139	1432	0	0	1119	549	0	0	0	133	0	55
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	1870	1836	1349	1870	0	1781	0	1585
Q Serve(g_s), s	4.6	7.1	0.0	0.0	13.4	13.4	0.0	0.0	0.0	4.0	0.0	1.8
Cycle Q Clear(g_c), s	4.6	7.1	0.0	0.0	13.4	13.4	0.0	0.0	0.0	4.0	0.0	1.8
Prop In Lane	1.00		0.00	1.00		0.10	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	178	3662	0	3	1779	873	120	312	0	418	0	265
V/C Ratio(X)	0.78	0.39	0.00	0.00	0.63	0.63	0.00	0.00	0.00	0.32	0.00	0.21
Avail Cap(c_a), veh/h	458	5266	0	149	2861	1404	873	1356	0	1411	0	1149
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	4.9	0.0	0.0	11.7	11.7	0.0	0.0	0.0	22.5	0.0	21.5
Incr Delay (d2), s/veh	2.8	0.1	0.0	0.0	0.4	0.8	0.0	0.0	0.0	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.3	0.0	0.0	4.0	4.0	0.0	0.0	0.0	1.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	4.9	0.0	0.0	12.1	12.5	0.0	0.0	0.0	22.9	0.0	21.9
LnGrp LOS	C	A	A	A	B	B	A	A	A	C	A	C
Approach Vol, veh/h		1571			1668			0			188	
Approach Delay, s/veh		7.1			12.2			0.0			22.6	
Approach LOS		A			B						C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	0.0	45.3		14.6	10.6	34.7				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		43.4	5.0	56.2		43.4	15.4	45.8				
Max Q Clear Time (g_c+I1), s		0.0	0.0	9.1		6.0	6.6	15.4				
Green Ext Time (p_c), s		0.0	0.0	12.8		0.7	0.1	13.1				

Intersection Summary												
HCM 6th Ctrl Delay			10.4									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1439	1410	132	0	125
Future Vol, veh/h	0	1439	1410	132	0	125
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, %	2	2	2	2	2	2
Mvmt Flow	0	1564	1533	143	0	136

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	838
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	266
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	266
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	31.9
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	266
HCM Lane V/C Ratio	-	-	-	0.511
HCM Control Delay (s)	-	-	-	31.9
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	2.7

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	11	27	276	136	11
Future Vol, veh/h	26	11	27	276	136	11
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	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	12	29	300	148	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	512	154	160	0	-	0
Stage 1	154	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	522	892	1419	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	512	892	1419	-	-	-
Mov Cap-2 Maneuver	581	-	-	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	707	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1419	-	648	-	-
HCM Lane V/C Ratio	0.021	-	0.062	-	-
HCM Control Delay (s)	7.6	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	0	303	129	17
Future Vol, veh/h	0	20	0	303	129	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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	0	329	140	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	149	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.23	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	897	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	897	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

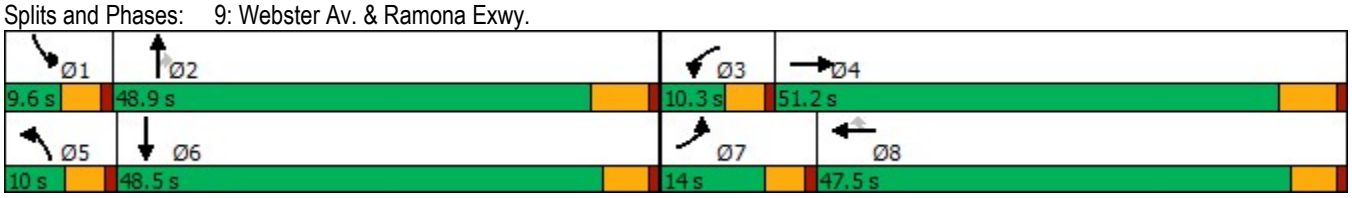
Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

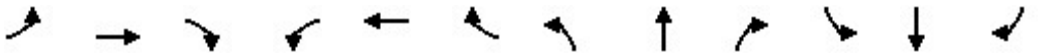
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	897	-	-
HCM Lane V/C Ratio	-	0.024	-	-
HCM Control Delay (s)	-	9.1	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	205	1157	21	1360	34	91	64	14	39	20
Future Volume (vph)	205	1157	21	1360	34	91	64	14	39	20
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	14.0	51.2	10.3	47.5	47.5	10.0	48.9	48.9	9.6	48.5
Total Split (%)	11.7%	42.7%	8.6%	39.6%	39.6%	8.3%	40.8%	40.8%	8.0%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.8	40.7	5.5	30.9	30.9	5.6	18.9	18.9	5.2	15.1
Actuated g/C Ratio	0.12	0.50	0.07	0.38	0.38	0.07	0.23	0.23	0.06	0.19
v/c Ratio	0.99	0.50	0.17	0.72	0.05	0.77	0.15	0.03	0.35	0.30
Control Delay	99.0	16.8	46.6	25.1	0.1	79.5	28.5	0.1	52.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.0	16.8	46.6	25.1	0.1	79.5	28.5	0.1	52.1	11.0
LOS	F	B	D	C	A	E	C	A	D	B
Approach Delay		28.5		24.8			53.7			21.8
Approach LOS		C		C			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 81.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	1157	77	21	1360	34	91	64	14	39	20	91
Future Volume (veh/h)	205	1157	77	21	1360	34	91	64	14	39	20	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	1181	63	21	1388	30	93	65	8	40	20	48
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	2431	130	42	1980	615	119	299	253	67	63	152
Arrive On Green	0.13	0.49	0.49	0.02	0.39	0.39	0.07	0.16	0.16	0.04	0.13	0.13
Sat Flow, veh/h	1781	4962	265	1781	5106	1585	1781	1870	1585	1781	483	1160
Grp Volume(v), veh/h	209	810	434	21	1388	30	93	65	8	40	0	68
Grp Sat Flow(s),veh/h/ln	1781	1702	1823	1781	1702	1585	1781	1870	1585	1781	0	1643
Q Serve(g_s), s	8.7	11.9	11.9	0.9	17.1	0.9	3.8	2.3	0.3	1.7	0.0	2.8
Cycle Q Clear(g_c), s	8.7	11.9	11.9	0.9	17.1	0.9	3.8	2.3	0.3	1.7	0.0	2.8
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	224	1668	893	42	1980	615	119	299	253	67	0	215
V/C Ratio(X)	0.93	0.49	0.49	0.50	0.70	0.05	0.78	0.22	0.03	0.59	0.00	0.32
Avail Cap(c_a), veh/h	224	2050	1097	136	2897	899	129	1069	906	119	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	12.8	12.8	36.0	19.2	14.3	34.3	27.3	26.5	35.4	0.0	29.5
Incr Delay (d2), s/veh	41.3	0.2	0.4	3.4	0.5	0.0	21.7	0.4	0.1	3.1	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	3.7	4.0	0.4	5.8	0.3	2.3	1.0	0.1	0.7	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	13.0	13.2	39.4	19.7	14.3	56.0	27.7	26.6	38.5	0.0	30.3
LnGrp LOS	E	B	B	D	B	B	E	C	C	D	A	C
Approach Vol, veh/h		1453			1439			166			108	
Approach Delay, s/veh		21.8			19.9			43.5			33.3	
Approach LOS		C			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	18.1	6.4	42.8	9.6	16.0	14.0	35.2
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.0	42.7	5.7	45.0	5.4	* 43	9.4	* 42
Max Q Clear Time (g_c+I1), s	3.7	4.3	2.9	13.9	5.8	4.8	10.7	19.1
Green Ext Time (p_c), s	0.0	0.3	0.0	8.8	0.0	0.4	0.0	9.9

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

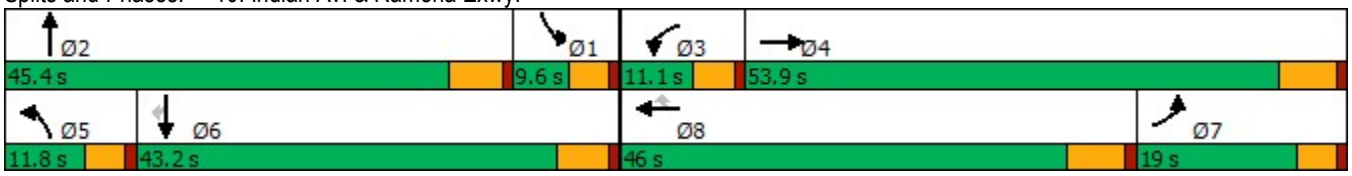
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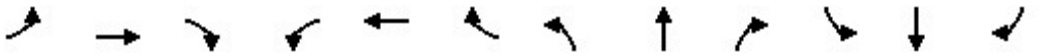
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	122	1038	32	1318	58	41	88	18	65	45
Future Volume (vph)	122	1038	32	1318	58	41	88	18	65	45
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	19.0	53.9	11.1	46.0	46.0	11.8	45.4	9.6	43.2	43.2
Total Split (%)	15.8%	44.9%	9.3%	38.3%	38.3%	9.8%	37.8%	8.0%	36.0%	36.0%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	10.5	41.3	6.2	31.5	31.5	6.6	16.8	5.8	14.3	14.3
Actuated g/C Ratio	0.13	0.51	0.08	0.39	0.39	0.08	0.21	0.07	0.18	0.18
v/c Ratio	0.55	0.44	0.24	0.69	0.08	0.30	0.16	0.15	0.11	0.11
Control Delay	47.7	15.9	48.6	24.4	0.2	48.7	23.2	48.1	31.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.9	48.6	24.4	0.2	48.7	23.2	48.1	31.3	0.5
LOS	D	B	D	C	A	D	C	D	C	A
Approach Delay		19.1		23.9			29.9		22.9	
Approach LOS		B		C			C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 80.3	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 55.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	1038	50	32	1318	58	41	88	27	18	65	45
Future Volume (veh/h)	122	1038	50	32	1318	58	41	88	27	18	65	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	1081	45	33	1373	34	43	92	8	19	68	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	2379	99	61	2005	622	73	477	41	40	508	227
Arrive On Green	0.09	0.47	0.47	0.03	0.39	0.39	0.04	0.14	0.14	0.02	0.14	0.14
Sat Flow, veh/h	1781	5028	209	1781	5106	1585	1781	3311	285	1781	3554	1585
Grp Volume(v), veh/h	127	732	394	33	1373	34	43	49	51	19	68	22
Grp Sat Flow(s),veh/h/ln	1781	1702	1833	1781	1702	1585	1781	1777	1819	1781	1777	1585
Q Serve(g_s), s	4.8	9.9	9.9	1.3	15.3	0.9	1.6	1.7	1.7	0.7	1.1	0.6
Cycle Q Clear(g_c), s	4.8	9.9	9.9	1.3	15.3	0.9	1.6	1.7	1.7	0.7	1.1	0.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	162	1611	867	61	2005	622	73	256	262	40	508	227
V/C Ratio(X)	0.78	0.45	0.45	0.54	0.68	0.05	0.59	0.19	0.20	0.48	0.13	0.10
Avail Cap(c_a), veh/h	374	2367	1274	169	2962	919	187	1026	1050	130	1937	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	12.1	12.1	32.6	17.3	12.9	32.3	25.8	25.9	33.1	25.7	12.1
Incr Delay (d2), s/veh	3.1	0.2	0.4	2.8	0.4	0.0	2.8	0.4	0.4	3.3	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	2.0	3.0	3.2	0.5	4.9	0.3	0.7	0.7	0.7	0.3	0.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	12.3	12.5	35.4	17.7	13.0	35.2	26.2	26.2	36.4	25.8	12.3
LnGrp LOS	C	B	B	D	B	B	D	C	C	D	C	B
Approach Vol, veh/h		1253			1440			143			109	
Approach Delay, s/veh		14.5			18.0			28.9			24.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	15.7	6.9	38.7	7.4	15.6	12.5	33.1
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	5.0	* 40	6.5	47.7	7.2	37.4	14.4	* 40
Max Q Clear Time (g_c+I1), s	2.7	3.7	3.3	11.9	3.6	3.1	6.8	17.3
Green Ext Time (p_c), s	0.0	0.5	0.0	7.9	0.0	0.4	0.1	9.6

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

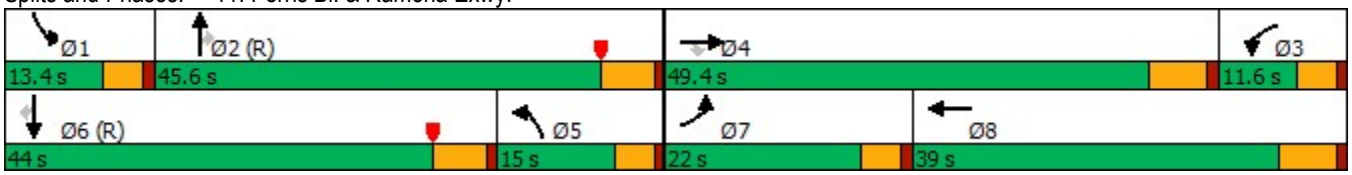
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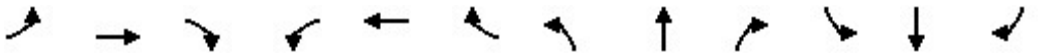
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	341	648	95	85	1002	171	523	64	121	310	234
Future Volume (vph)	341	648	95	85	1002	171	523	64	121	310	234
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	22.0	49.4	49.4	11.6	39.0	15.0	45.6	45.6	13.4	44.0	44.0
Total Split (%)	18.3%	41.2%	41.2%	9.7%	32.5%	12.5%	38.0%	38.0%	11.2%	36.7%	36.7%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.5	28.3	28.3	21.1	31.8	10.4	43.4	43.4	8.0	41.0	41.0
Actuated g/C Ratio	0.13	0.24	0.24	0.18	0.26	0.09	0.36	0.36	0.07	0.34	0.34
v/c Ratio	0.78	0.55	0.19	0.14	0.85	0.59	0.42	0.10	0.54	0.26	0.34
Control Delay	63.4	43.3	0.8	40.9	47.9	61.3	30.9	0.3	63.1	30.1	5.2
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	63.4	43.3	0.8	40.9	47.9	61.3	30.9	0.3	63.1	30.1	5.2
LOS	E	D	A	D	D	E	C	A	E	C	A
Approach Delay		45.9			47.4		35.2			27.3	
Approach LOS		D			D		D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38.2 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 40.9	Intersection LOS: D
Intersection Capacity Utilization 67.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	648	95	85	1002	109	171	523	64	121	310	234
Future Volume (veh/h)	341	648	95	85	1002	109	171	523	64	121	310	234
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	661	53	87	1022	94	174	534	14	123	316	148
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	406	897	278	615	1187	109	443	1440	642	177	1131	505
Arrive On Green	0.12	0.18	0.18	0.18	0.25	0.25	0.13	0.41	0.41	0.05	0.32	0.32
Sat Flow, veh/h	3456	5106	1585	3456	4759	437	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	348	661	53	87	731	385	174	534	14	123	316	148
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1792	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.9	14.7	3.4	2.5	24.6	24.7	5.5	12.6	0.3	4.2	8.0	5.9
Cycle Q Clear(g_c), s	11.9	14.7	3.4	2.5	24.6	24.7	5.5	12.6	0.3	4.2	8.0	5.9
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	406	897	278	615	849	447	443	1440	642	177	1131	505
V/C Ratio(X)	0.86	0.74	0.19	0.14	0.86	0.86	0.39	0.37	0.02	0.70	0.28	0.29
Avail Cap(c_a), veh/h	501	1838	571	615	930	490	443	1440	642	253	1131	505
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)	0.90	0.90	0.90	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	46.8	42.2	41.6	43.0	43.1	48.0	25.0	6.1	56.0	30.6	15.1
Incr Delay (d2), s/veh	9.2	1.1	0.3	0.0	6.2	11.1	0.2	0.7	0.1	1.8	0.6	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	5.5	6.1	1.3	1.1	10.6	11.8	2.3	5.3	0.2	1.8	3.4	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	47.9	42.5	41.6	49.2	54.2	48.2	25.7	6.1	57.9	31.2	16.6
LnGrp LOS	E	D	D	D	D	D	D	C	A	E	C	B
Approach Vol, veh/h		1062			1203			722			587	
Approach Delay, s/veh		52.0			50.3			30.8			33.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	54.4	27.5	27.3	21.2	44.0	18.7	36.1
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	8.8	39.8	7.0	* 43	10.4	* 38	17.4	32.8
Max Q Clear Time (g_c+I1), s	6.2	14.6	4.5	16.7	7.5	10.0	13.9	26.7
Green Ext Time (p_c), s	0.0	3.4	0.0	4.4	0.1	2.4	0.2	3.2

Intersection Summary	
HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

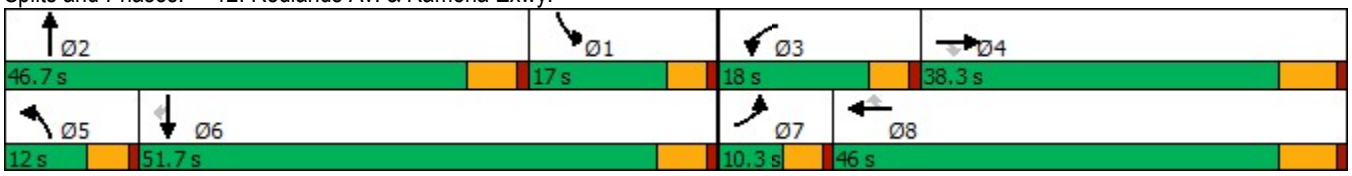
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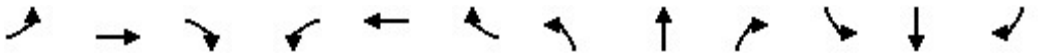
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	21	752	44	85	1234	461	40	137	76	37	10
Future Volume (vph)	21	752	44	85	1234	461	40	137	76	37	10
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	10.3	38.3	38.3	18.0	46.0	46.0	12.0	46.7	17.0	51.7	51.7
Total Split (%)	8.6%	31.9%	31.9%	15.0%	38.3%	38.3%	10.0%	38.9%	14.2%	43.1%	43.1%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	6.1	24.1	24.1	9.0	31.5	31.5	6.8	18.8	8.6	23.0	23.0
Actuated g/C Ratio	0.08	0.31	0.31	0.12	0.41	0.41	0.09	0.24	0.11	0.30	0.30
v/c Ratio	0.15	0.48	0.07	0.42	0.60	0.51	0.26	0.57	0.39	0.07	0.02
Control Delay	48.1	25.7	0.2	46.0	21.8	4.7	47.7	30.1	46.2	24.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	25.7	0.2	46.0	21.8	4.7	47.7	30.1	46.2	24.4	0.1
LOS	D	C	A	D	C	A	D	C	D	C	A
Approach Delay		24.9			18.6			32.5		36.0	
Approach LOS		C			B			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	752	44	85	1234	461	40	137	114	76	37	10
Future Volume (veh/h)	21	752	44	85	1234	461	40	137	114	76	37	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	767	35	87	1259	344	41	140	81	78	38	5
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	1840	559	112	2037	619	73	190	110	106	380	316
Arrive On Green	0.02	0.36	0.36	0.06	0.40	0.40	0.04	0.17	0.17	0.06	0.20	0.20
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	1105	640	1781	1870	1557
Grp Volume(v), veh/h	21	767	35	87	1259	344	41	0	221	78	38	5
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1745	1781	1870	1557
Q Serve(g_s), s	0.7	7.1	0.9	3.0	12.3	6.3	1.4	0.0	7.5	2.7	1.0	0.2
Cycle Q Clear(g_c), s	0.7	7.1	0.9	3.0	12.3	6.3	1.4	0.0	7.5	2.7	1.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	44	1840	559	112	2037	619	73	0	299	106	380	316
V/C Ratio(X)	0.48	0.42	0.06	0.77	0.62	0.56	0.56	0.00	0.74	0.74	0.10	0.02
Avail Cap(c_a), veh/h	163	2624	797	382	3253	989	211	0	1154	354	1386	1154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	15.0	13.1	28.8	15.0	5.1	29.4	0.0	24.5	28.9	20.3	19.9
Incr Delay (d2), s/veh	3.1	0.2	0.0	4.3	0.3	0.8	2.6	0.0	3.6	3.7	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.2	0.3	1.3	3.8	2.6	0.6	0.0	3.1	1.2	0.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	15.2	13.1	33.1	15.3	5.9	32.0	0.0	28.1	32.6	20.4	19.9
LnGrp LOS	C	B	B	C	B	A	C	A	C	C	C	B
Approach Vol, veh/h		823			1690			262			121	
Approach Delay, s/veh		15.6			14.3			28.7			28.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	16.1	8.5	28.7	7.1	18.1	6.1	31.1
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	12.4	* 41	13.4	32.1	7.4	46.3	5.7	39.8
Max Q Clear Time (g_c+I1), s	4.7	9.5	5.0	9.1	3.4	3.0	2.7	14.3
Green Ext Time (p_c), s	0.0	1.3	0.0	4.9	0.0	0.2	0.0	10.6

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

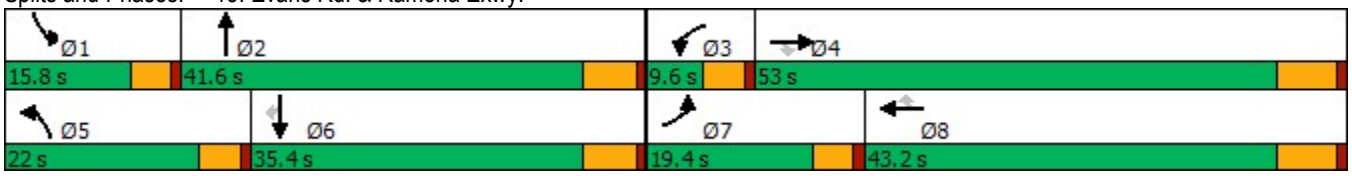
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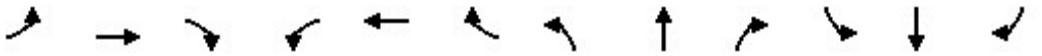
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	334	427	182	17	982	298	399	467	185	251	400
Future Volume (vph)	334	427	182	17	982	298	399	467	185	251	400
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	19.4	53.0	53.0	9.6	43.2	43.2	22.0	41.6	15.8	35.4	35.4
Total Split (%)	16.2%	44.2%	44.2%	8.0%	36.0%	36.0%	18.3%	34.7%	13.2%	29.5%	29.5%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	14.3	52.2	52.2	5.7	37.3	37.3	16.6	29.6	10.4	23.4	23.4
Actuated g/C Ratio	0.13	0.48	0.48	0.05	0.35	0.35	0.15	0.27	0.10	0.22	0.22
v/c Ratio	0.76	0.18	0.22	0.19	0.84	0.44	0.79	0.53	0.58	0.34	0.83
Control Delay	59.1	18.1	3.9	59.3	41.3	10.6	57.6	35.2	56.8	37.1	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	18.1	3.9	59.3	41.3	10.6	57.6	35.2	56.8	37.1	36.0
LOS	E	B	A	E	D	B	E	D	E	D	D
Approach Delay		29.9			34.5			45.2		41.0	
Approach LOS		C			C			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 37.2	Intersection LOS: D
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	427	182	17	982	298	399	467	27	185	251	400
Future Volume (veh/h)	334	427	182	17	982	298	399	467	27	185	251	400
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	445	0	18	1023	214	416	486	16	193	261	321
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	2244		44	1210	540	497	1077	35	275	861	384
Arrive On Green	0.12	0.44	0.00	0.02	0.34	0.34	0.14	0.31	0.31	0.08	0.24	0.24
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3509	115	3456	3554	1585
Grp Volume(v), veh/h	348	445	0	18	1023	214	416	246	256	193	261	321
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1848	1728	1777	1585
Q Serve(g_s), s	10.5	5.7	0.0	1.1	28.6	11.0	12.6	11.9	12.0	5.8	6.4	20.6
Cycle Q Clear(g_c), s	10.5	5.7	0.0	1.1	28.6	11.0	12.6	11.9	12.0	5.8	6.4	20.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	428	2244		44	1210	540	497	545	567	275	861	384
V/C Ratio(X)	0.81	0.20		0.40	0.85	0.40	0.84	0.45	0.45	0.70	0.30	0.84
Avail Cap(c_a), veh/h	497	2335		93	1300	580	580	623	648	380	1041	464
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	18.4	0.0	51.5	32.7	26.9	44.6	29.9	29.9	48.1	33.2	38.6
Incr Delay (d2), s/veh	7.5	0.0	0.0	2.2	5.1	0.5	8.0	0.6	0.6	1.4	0.2	10.7
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	4.7	2.1	0.0	0.5	12.1	3.9	5.7	5.0	5.2	2.5	2.7	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	18.5	0.0	53.7	37.8	27.4	52.6	30.5	30.5	49.5	33.4	49.3
LnGrp LOS	D	B		D	D	C	D	C	C	D	C	D
Approach Vol, veh/h		793	A		1255			918			775	
Approach Delay, s/veh		33.7			36.2			40.5			44.0	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	36.9	6.7	51.1	19.4	30.0	17.3	40.5
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	11.2	35.8	5.0	46.5	17.4	29.6	14.8	36.7
Max Q Clear Time (g_c+I1), s	7.8	14.0	3.1	7.7	14.6	22.6	12.5	30.6
Green Ext Time (p_c), s	0.1	2.6	0.0	2.7	0.3	1.6	0.2	3.4

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

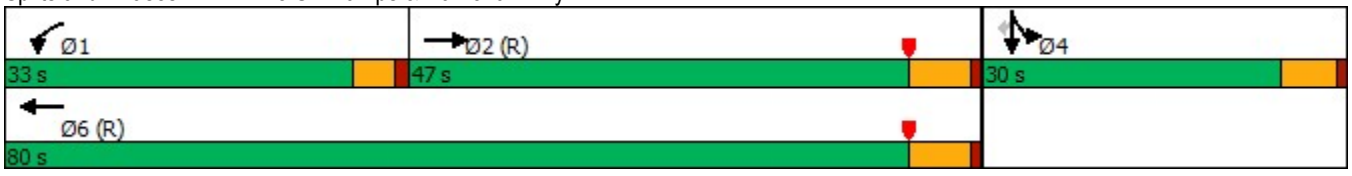
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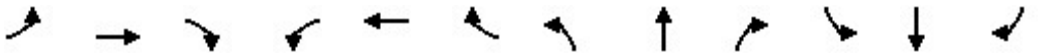
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	778	410	900	655	0	91
Future Volume (vph)	778	410	900	655	0	91
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	47.0	33.0	80.0	30.0	30.0	30.0
Total Split (%)	42.7%	30.0%	72.7%	27.3%	27.3%	27.3%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	42.6	27.7	74.8	23.7	23.7	23.7
Actuated g/C Ratio	0.39	0.25	0.68	0.22	0.22	0.22
v/c Ratio	0.91	0.94	0.38	0.92	0.92	0.22
Control Delay	40.3	50.5	2.9	74.2	74.2	8.7
Queue Delay	0.8	0.4	0.3	72.0	72.0	0.0
Total Delay	41.1	50.9	3.2	146.2	146.2	8.7
LOS	D	D	A	F	F	A
Approach Delay	41.1		18.1		129.4	
Approach LOS	D		B		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 52.1	Intersection LOS: D
Intersection Capacity Utilization 125.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	778	433	410	900	0	0	0	0	655	0	91
Future Volume (veh/h)	0	778	433	410	900	0	0	0	0	655	0	91
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	794	264	418	918	0				668	0	51
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	2	2	2	2	0				2	2	2
Cap, veh/h	0	1040	346	445	2444	0				740	0	329
Arrive On Green	0.00	0.40	0.40	0.25	0.69	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	2713	871	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	538	520	418	918	0				668	0	51
Grp Sat Flow(s),veh/h/ln	0	1777	1714	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	28.8	28.9	25.3	12.0	0.0				20.1	0.0	2.9
Cycle Q Clear(g_c), s	0.0	28.8	28.9	25.3	12.0	0.0				20.1	0.0	2.9
Prop In Lane	0.00		0.51	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	705	680	445	2444	0				740	0	329
V/C Ratio(X)	0.00	0.76	0.76	0.94	0.38	0.00				0.90	0.00	0.15
Avail Cap(c_a), veh/h	0	705	680	462	2444	0				793	0	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.80	0.80	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.7	28.7	40.4	7.2	0.0				42.5	0.0	35.7
Incr Delay (d2), s/veh	0.0	7.7	8.0	23.1	0.4	0.0				13.1	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	12.8	12.4	13.3	3.7	0.0				9.8	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.4	36.7	63.5	7.6	0.0				55.6	0.0	35.9
LnGrp LOS	A	D	D	E	A	A				E	A	D
Approach Vol, veh/h		1058			1336						719	
Approach Delay, s/veh		36.5			25.1						54.2	
Approach LOS		D			C						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	49.7		28.3		81.7						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	28.5	41.0		24.5		74.0						
Max Q Clear Time (g_c+I1), s	27.3	30.9		22.1		14.0						
Green Ext Time (p_c), s	0.2	3.0		0.7		4.0						

Intersection Summary			
HCM 6th Ctrl Delay		35.7	
HCM 6th LOS		D	

Notes

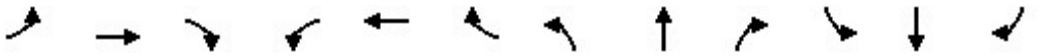
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	108	1325	886	530	424	4	479
Future Volume (vph)	108	1325	886	530	424	4	479
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	17.0	62.0	45.0	45.0	48.0	48.0	48.0
Total Split (%)	15.5%	56.4%	40.9%	40.9%	43.6%	43.6%	43.6%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	11.0	62.2	46.7	46.7	36.3	36.3	36.3
Actuated g/C Ratio	0.10	0.57	0.42	0.42	0.33	0.33	0.33
v/c Ratio	0.63	0.68	0.61	0.60	0.39	0.40	0.86
Control Delay	45.9	30.1	28.4	9.9	29.4	29.5	44.5
Queue Delay	0.0	49.7	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	79.9	28.5	9.9	29.4	29.5	44.5
LOS	D	E	C	A	C	C	D
Approach Delay		77.3	21.5			37.4	
Approach LOS		E	C			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 46.6	Intersection LOS: D
Intersection Capacity Utilization 125.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	1325	0	0	886	530	424	4	479	0	0	0
Future Volume (veh/h)	108	1325	0	0	886	530	424	4	479	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	111	1366	0	0	913	412	440	0	345			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	136	2292	0	0	1875	836	892	0	397			
Arrive On Green	0.15	1.00	0.00	0.00	0.53	0.53	0.25	0.00	0.25			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	111	1366	0	0	913	412	440	0	345			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	6.6	0.0	0.0	0.0	18.0	18.2	11.6	0.0	22.9			
Cycle Q Clear(g_c), s	6.6	0.0	0.0	0.0	18.0	18.2	11.6	0.0	22.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	136	2292	0	0	1875	836	892	0	397			
V/C Ratio(X)	0.81	0.60	0.00	0.00	0.49	0.49	0.49	0.00	0.87			
Avail Cap(c_a), veh/h	202	2292	0	0	1875	836	1376	0	612			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.29	0.29	0.00	0.00	0.51	0.51	1.00	0.00	1.00			
Uniform Delay (d), s/veh	45.8	0.0	0.0	0.0	16.5	16.6	35.3	0.0	39.5			
Incr Delay (d2), s/veh	4.7	0.3	0.0	0.0	0.5	1.1	0.4	0.0	8.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	0.1	0.0	0.0	6.7	6.2	4.9	0.0	9.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	0.3	0.0	0.0	17.0	17.6	35.7	0.0	47.8			
LnGrp LOS	D	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		1477			1325			785				
Approach Delay, s/veh		4.1			17.2			41.0				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			12.9	64.0		33.0				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		56.0			12.5	39.0		42.5				
Max Q Clear Time (g_c+I1), s		2.0			8.6	20.2		24.9				
Green Ext Time (p_c), s		7.1			0.1	4.3		2.6				
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

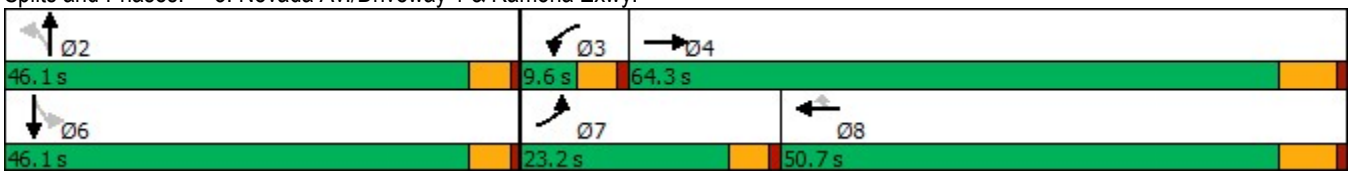
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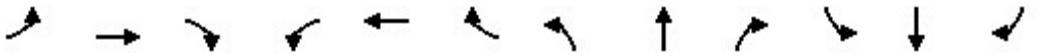
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	247	1404	22	1219	148	16	176	14
Future Volume (vph)	247	1404	22	1219	148	16	176	14
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					8		6	
Detector Phase	7	4	3	8	8	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	9.6	24.2	24.2	45.6	45.6	45.6
Total Split (s)	23.2	64.3	9.6	50.7	50.7	46.1	46.1	46.1
Total Split (%)	19.3%	53.6%	8.0%	42.3%	42.3%	38.4%	38.4%	38.4%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)	18.2	61.5	5.1	42.0	42.0	20.5	20.5	20.5
Actuated g/C Ratio	0.19	0.64	0.05	0.44	0.44	0.21	0.21	0.21
v/c Ratio	0.78	0.70	0.25	0.79	0.21	0.08	0.63	0.44
Control Delay	57.1	16.6	56.5	29.4	6.6	20.0	44.6	8.2
Queue Delay	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	57.1	17.6	56.5	29.6	6.6	20.0	44.6	8.2
LOS	E	B	E	C	A	C	D	A
Approach Delay		23.0		27.6		20.0		24.8
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 77.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Nevada Av./Driveway 1 & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	1404	153	22	1219	148	0	16	12	176	14	197
Future Volume (veh/h)	247	1404	153	22	1219	148	0	16	12	176	14	197
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	260	1478	161	23	1283	156	0	17	13	185	15	207
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	1957	211	45	1668	707	0	190	145	336	21	288
Arrive On Green	0.17	0.59	0.59	0.03	0.45	0.45	0.00	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1781	3318	358	1781	3741	1585	0	983	752	1380	108	1493
Grp Volume(v), veh/h	260	827	812	23	1283	156	0	0	30	185	0	222
Grp Sat Flow(s),veh/h/ln	1781	1870	1806	1781	1870	1585	0	0	1735	1380	0	1602
Q Serve(g_s), s	11.4	26.0	26.8	1.0	23.2	4.8	0.0	0.0	1.1	10.2	0.0	10.4
Cycle Q Clear(g_c), s	11.4	26.0	26.8	1.0	23.2	4.8	0.0	0.0	1.1	11.3	0.0	10.4
Prop In Lane	1.00		0.20	1.00		1.00	0.00		0.43	1.00		0.93
Lane Grp Cap(c), veh/h	301	1103	1065	45	1668	707	0	0	335	336	0	309
V/C Ratio(X)	0.86	0.75	0.76	0.52	0.77	0.22	0.00	0.00	0.09	0.55	0.00	0.72
Avail Cap(c_a), veh/h	414	1357	1311	111	2079	881	0	0	899	786	0	830
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	12.1	12.2	38.5	18.7	13.6	0.0	0.0	26.5	31.2	0.0	30.3
Incr Delay (d2), s/veh	10.3	1.9	2.1	3.4	1.4	0.2	0.0	0.0	0.1	1.4	0.0	3.1
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	5.7	10.2	10.2	0.5	9.8	1.7	0.0	0.0	0.5	3.5	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	13.9	14.4	42.0	20.1	13.8	0.0	0.0	26.6	32.6	0.0	33.4
LnGrp LOS	D	B	B	D	C	B	A	A	C	C	A	C
Approach Vol, veh/h		1899			1462			30			407	
Approach Delay, s/veh		18.1			19.8			26.6			33.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	6.6	53.4		20.0	18.1	41.9				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		41.5	5.0	58.1		41.5	18.6	44.5				
Max Q Clear Time (g_c+I1), s		3.1	3.0	28.8		13.3	13.4	25.2				
Green Ext Time (p_c), s		0.1	0.0	16.4		2.1	0.2	10.5				

Intersection Summary												
HCM 6th Ctrl Delay			20.4									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1591	1344	50	0	45
Future Vol, veh/h	0	1591	1344	50	0	45
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, %	2	2	2	2	2	2
Mvmt Flow	0	1729	1461	54	0	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	758
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	300
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	300
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

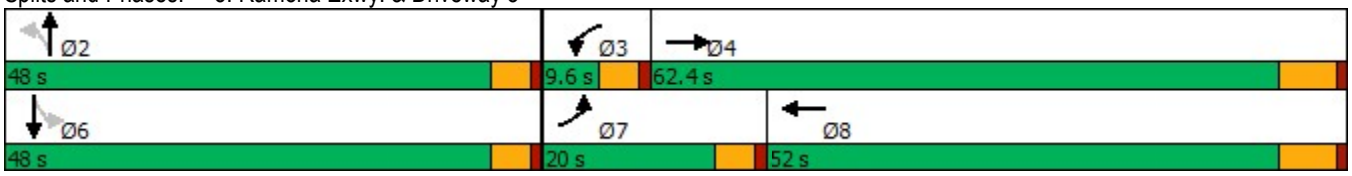
Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	300
HCM Lane V/C Ratio	-	-	-	0.163
HCM Control Delay (s)	-	-	-	19.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.6

Lane Group	EBL	EBT	WBT	SBL	SBT	Ø2	Ø3
Lane Configurations							
Traffic Volume (vph)	104	1488	1351	94	0		
Future Volume (vph)	104	1488	1351	94	0		
Turn Type	Prot	NA	NA	Perm	NA		
Protected Phases	7	4	8		6	2	3
Permitted Phases				6			
Detector Phase	7	4	8	6	6		
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	24.2	24.2	45.6	45.6	45.6	9.6
Total Split (s)	20.0	62.4	52.0	48.0	48.0	48.0	9.6
Total Split (%)	16.7%	52.0%	43.3%	40.0%	40.0%	40%	8%
Yellow Time (s)	3.6	5.2	5.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.6	6.2	6.2	4.6	4.6		
Lead/Lag	Lead	Lag	Lag				Lead
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effct Green (s)	10.0	48.4	36.9	15.9	15.9		
Actuated g/C Ratio	0.13	0.63	0.48	0.21	0.21		
v/c Ratio	0.49	0.46	0.56	0.35	0.09		
Control Delay	44.6	8.4	17.2	32.0	0.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	44.6	8.5	17.2	32.0	0.4		
LOS	D	A	B	C	A		
Approach Delay		10.8	17.3		22.0		
Approach LOS		B	B		C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Ramona Exwy. & Driveway 3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	1488	0	0	1351	45	0	0	0	94	0	43
Future Volume (veh/h)	104	1488	0	0	1351	45	0	0	0	94	0	43
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	1617	0	0	1468	49	0	0	0	102	0	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	3602	0	3	2594	87	124	322	0	431	0	273
Arrive On Green	0.08	0.64	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.17	0.00	0.17
Sat Flow, veh/h	1781	5611	0	1781	5398	180	1359	1870	0	1781	0	1585
Grp Volume(v), veh/h	113	1617	0	0	1017	500	0	0	0	102	0	47
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	1870	1838	1359	1870	0	1781	0	1585
Q Serve(g_s), s	3.6	8.4	0.0	0.0	11.3	11.3	0.0	0.0	0.0	2.9	0.0	1.5
Cycle Q Clear(g_c), s	3.6	8.4	0.0	0.0	11.3	11.3	0.0	0.0	0.0	2.9	0.0	1.5
Prop In Lane	1.00		0.00	1.00		0.10	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	3602	0	3	1797	883	124	322	0	431	0	273
V/C Ratio(X)	0.77	0.45	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.24	0.00	0.17
Avail Cap(c_a), veh/h	472	5428	0	153	2949	1449	905	1397	0	1455	0	1184
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	5.2	0.0	0.0	10.8	10.8	0.0	0.0	0.0	21.1	0.0	20.5
Incr Delay (d2), s/veh	3.2	0.1	0.0	0.0	0.3	0.6	0.0	0.0	0.0	0.3	0.0	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	1.6	2.4	0.0	0.0	4.1	4.1	0.0	0.0	0.0	1.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	5.3	0.0	0.0	11.1	11.3	0.0	0.0	0.0	21.4	0.0	20.8
LnGrp LOS	C	A	A	A	B	B	A	A	A	C	A	C
Approach Vol, veh/h		1730			1517			0			149	
Approach Delay, s/veh		6.9			11.1			0.0			21.2	
Approach LOS		A			B						C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	0.0	43.5		14.6	9.4	34.1				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		43.4	5.0	56.2		43.4	15.4	45.8				
Max Q Clear Time (g_c+I1), s		0.0	0.0	10.4		4.9	5.6	13.3				
Green Ext Time (p_c), s		0.0	0.0	19.6		0.6	0.1	14.6				

Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1582	1297	107	0	99
Future Vol, veh/h	0	1582	1297	107	0	99
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, %	2	2	2	2	2	2
Mvmt Flow	0	1720	1410	116	0	108

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	763
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	298
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	298
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	298
HCM Lane V/C Ratio	-	-	-	0.361
HCM Control Delay (s)	-	-	-	23.8
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.6

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	8	22	178	229	8
Future Vol, veh/h	21	8	22	178	229	8
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	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	9	24	193	249	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	495	254	258	0	-	0
Stage 1	254	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	534	785	1307	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	524	785	1307	-	-	-
Mov Cap-2 Maneuver	598	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1307	-	640	-	-
HCM Lane V/C Ratio	0.018	-	0.049	-	-
HCM Control Delay (s)	7.8	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	0	201	222	14
Future Vol, veh/h	0	16	0	201	222	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, %	2	2	2	2	2	2
Mvmt Flow	0	17	0	218	241	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	249	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.23	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	789	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	789	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

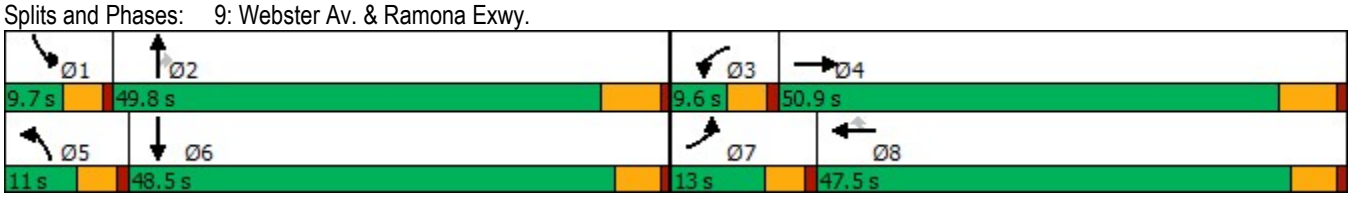
Approach	EB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

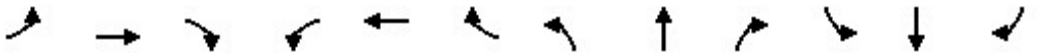
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	789	-	-
HCM Lane V/C Ratio	-	0.022	-	-
HCM Control Delay (s)	-	9.7	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	141	1396	15	1184	27	97	32	17	57	58
Future Volume (vph)	141	1396	15	1184	27	97	32	17	57	58
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	13.0	50.9	9.6	47.5	47.5	11.0	49.8	49.8	9.7	48.5
Total Split (%)	10.8%	42.4%	8.0%	39.6%	39.6%	9.2%	41.5%	41.5%	8.1%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.8	39.3	5.2	28.1	28.1	6.7	17.8	17.8	9.2	15.2
Actuated g/C Ratio	0.11	0.50	0.07	0.35	0.35	0.08	0.22	0.22	0.12	0.19
v/c Ratio	0.77	0.61	0.14	0.70	0.05	0.69	0.08	0.04	0.30	0.48
Control Delay	63.5	17.9	46.0	24.9	0.1	64.1	26.6	0.2	44.7	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	17.9	46.0	24.9	0.1	64.1	26.6	0.2	44.7	18.4
LOS	E	B	D	C	A	E	C	A	D	B
Approach Delay		21.9		24.6			48.4			24.7
Approach LOS		C		C			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 79.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 24.4	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	1396	45	15	1184	27	97	32	17	57	58	124
Future Volume (veh/h)	141	1396	45	15	1184	27	97	32	17	57	58	124
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	150	1485	42	16	1260	24	103	34	13	61	62	62
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	2316	66	34	1878	583	132	311	264	89	122	122
Arrive On Green	0.11	0.45	0.45	0.02	0.37	0.37	0.07	0.17	0.17	0.05	0.14	0.14
Sat Flow, veh/h	1781	5104	144	1781	5106	1585	1781	1870	1585	1781	858	858
Grp Volume(v), veh/h	150	990	537	16	1260	24	103	34	13	61	0	124
Grp Sat Flow(s),veh/h/ln	1781	1702	1844	1781	1702	1585	1781	1870	1585	1781	0	1716
Q Serve(g_s), s	5.7	15.6	15.6	0.6	14.4	0.7	3.9	1.1	0.5	2.3	0.0	4.6
Cycle Q Clear(g_c), s	5.7	15.6	15.6	0.6	14.4	0.7	3.9	1.1	0.5	2.3	0.0	4.6
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	187	1545	837	34	1878	583	132	311	264	89	0	244
V/C Ratio(X)	0.80	0.64	0.64	0.47	0.67	0.04	0.78	0.11	0.05	0.69	0.00	0.51
Avail Cap(c_a), veh/h	215	2190	1187	128	3116	967	164	1174	995	131	0	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	14.6	14.6	33.7	18.4	14.1	31.6	24.6	24.3	32.5	0.0	27.5
Incr Delay (d2), s/veh	14.7	0.4	0.8	3.7	0.4	0.0	13.6	0.2	0.1	3.5	0.0	1.6
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	3.0	4.8	5.3	0.3	4.8	0.2	2.1	0.5	0.2	1.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	15.1	15.4	37.4	18.9	14.1	45.2	24.7	24.4	36.0	0.0	29.2
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	A	C
Approach Vol, veh/h		1677			1300			150			185	
Approach Delay, s/veh		17.9			19.0			38.8			31.4	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	17.8	5.9	37.7	9.7	16.1	11.9	31.8
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.1	43.6	5.0	44.7	6.4	* 43	8.4	* 42
Max Q Clear Time (g_c+I1), s	4.3	3.1	2.6	17.6	5.9	6.6	7.7	16.4
Green Ext Time (p_c), s	0.0	0.2	0.0	11.0	0.0	0.7	0.0	9.2

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	C

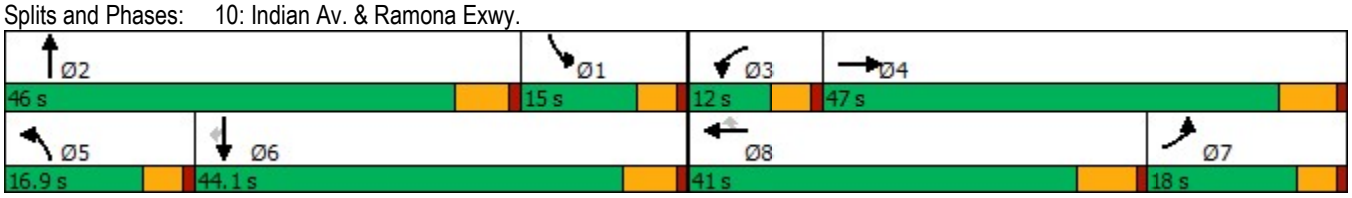
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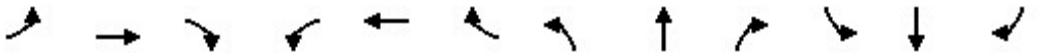
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	105	1283	46	1053	69	80	103	71	165	93
Future Volume (vph)	105	1283	46	1053	69	80	103	71	165	93
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	18.0	47.0	12.0	41.0	41.0	16.9	46.0	15.0	44.1	44.1
Total Split (%)	15.0%	39.2%	10.0%	34.2%	34.2%	14.1%	38.3%	12.5%	36.8%	36.8%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	10.6	32.4	7.0	26.7	26.7	8.8	15.1	8.6	15.0	15.0
Actuated g/C Ratio	0.14	0.42	0.09	0.35	0.35	0.11	0.20	0.11	0.19	0.19
v/c Ratio	0.46	0.66	0.30	0.63	0.11	0.42	0.29	0.38	0.25	0.22
Control Delay	44.2	22.4	47.3	26.2	0.3	46.1	17.7	45.6	31.4	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	22.4	47.3	26.2	0.3	46.1	17.7	45.6	31.4	1.2
LOS	D	C	D	C	A	D	B	D	C	A
Approach Delay		24.0		25.5			25.9		25.9	
Approach LOS		C		C			C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 77.3	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	1283	39	46	1053	69	80	103	96	71	165	93
Future Volume (veh/h)	105	1283	39	46	1053	69	80	103	96	71	165	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	1351	35	48	1108	49	84	108	57	75	174	41
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2017	52	80	1686	523	108	357	178	102	607	271
Arrive On Green	0.08	0.39	0.39	0.04	0.33	0.33	0.06	0.16	0.16	0.06	0.17	0.17
Sat Flow, veh/h	1781	5116	133	1781	5106	1585	1781	2299	1142	1781	3554	1585
Grp Volume(v), veh/h	111	899	487	48	1108	49	84	82	83	75	174	41
Grp Sat Flow(s),veh/h/ln	1781	1702	1845	1781	1702	1585	1781	1777	1665	1781	1777	1585
Q Serve(g_s), s	3.9	14.0	14.0	1.7	11.9	1.4	3.0	2.6	2.9	2.7	2.7	1.0
Cycle Q Clear(g_c), s	3.9	14.0	14.0	1.7	11.9	1.4	3.0	2.6	2.9	2.7	2.7	1.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	149	1342	727	80	1686	523	108	276	259	102	607	271
V/C Ratio(X)	0.74	0.67	0.67	0.60	0.66	0.09	0.78	0.30	0.32	0.73	0.29	0.15
Avail Cap(c_a), veh/h	371	2159	1170	205	2763	858	341	1111	1040	288	2116	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	16.0	16.0	30.2	18.4	14.9	29.8	24.0	24.1	29.8	23.3	10.3
Incr Delay (d2), s/veh	2.7	0.6	1.1	2.7	0.4	0.1	4.4	0.6	0.7	3.8	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	1.6	4.4	4.9	0.7	3.9	0.4	1.3	1.1	1.1	1.2	1.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	16.6	17.1	32.9	18.9	15.0	34.2	24.6	24.9	33.6	23.5	10.6
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	B
Approach Vol, veh/h		1497			1205			249			290	
Approach Delay, s/veh		17.9			19.3			27.9			24.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	15.8	7.5	31.6	8.5	16.8	11.6	27.4
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	10.4	* 40	7.4	40.8	12.3	38.3	13.4	* 35
Max Q Clear Time (g_c+I1), s	4.7	4.9	3.7	16.0	5.0	4.7	5.9	13.9
Green Ext Time (p_c), s	0.0	0.9	0.0	9.4	0.0	1.2	0.1	7.3

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

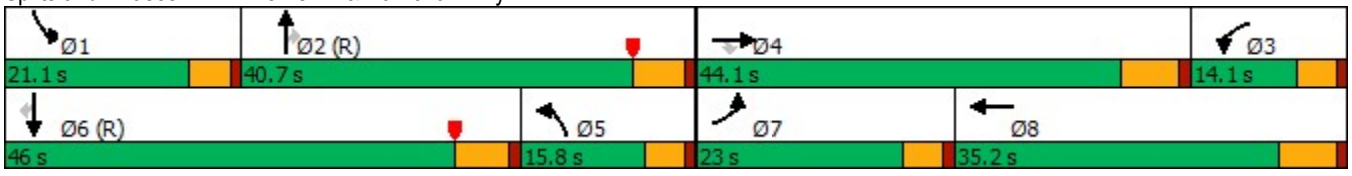
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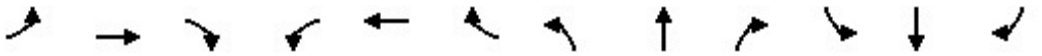
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	319	990	140	129	760	166	433	105	272	607	230
Future Volume (vph)	319	990	140	129	760	166	433	105	272	607	230
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	23.0	44.1	44.1	14.1	35.2	15.8	40.7	40.7	21.1	46.0	46.0
Total Split (%)	19.2%	36.8%	36.8%	11.8%	29.3%	13.2%	33.9%	33.9%	17.6%	38.3%	38.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.7	32.8	32.8	10.0	27.1	11.2	42.0	42.0	14.0	44.8	44.8
Actuated g/C Ratio	0.13	0.27	0.27	0.08	0.23	0.09	0.35	0.35	0.12	0.37	0.37
v/c Ratio	0.76	0.76	0.27	0.48	0.80	0.55	0.37	0.17	0.72	0.49	0.33
Control Delay	61.4	43.5	3.8	58.4	48.8	59.1	31.7	1.5	61.7	31.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	43.5	3.8	58.4	48.8	59.1	31.7	1.5	61.7	31.3	6.0
LOS	E	D	A	E	D	E	C	A	E	C	A
Approach Delay		43.6			50.1		33.7			33.5	
Approach LOS		D			D		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 40.8	Intersection LOS: D
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	990	140	129	760	97	166	433	105	272	607	230
Future Volume (veh/h)	319	990	140	129	760	97	166	433	105	272	607	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	339	1053	72	137	809	85	177	461	57	289	646	121
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	1305	405	192	980	102	532	1415	631	348	1190	531
Arrive On Green	0.12	0.26	0.26	0.06	0.21	0.21	0.15	0.40	0.40	0.10	0.34	0.34
Sat Flow, veh/h	3456	5106	1585	3456	4689	490	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	339	1053	72	137	586	308	177	461	57	289	646	121
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1775	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.5	23.2	4.3	4.7	19.7	19.9	5.5	10.8	2.0	9.8	17.7	4.6
Cycle Q Clear(g_c), s	11.5	23.2	4.3	4.7	19.7	19.9	5.5	10.8	2.0	9.8	17.7	4.6
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	1305	405	192	712	371	532	1415	631	348	1190	531
V/C Ratio(X)	0.85	0.81	0.18	0.71	0.82	0.83	0.33	0.33	0.09	0.83	0.54	0.23
Avail Cap(c_a), veh/h	530	1613	501	274	823	429	532	1415	631	475	1190	531
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)	0.72	0.72	0.72	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	41.9	34.8	55.7	45.3	45.4	45.3	25.0	12.4	53.0	32.4	13.9
Incr Delay (d2), s/veh	5.7	1.9	0.1	1.7	5.4	10.3	0.1	0.6	0.3	6.5	1.8	1.0
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	5.1	9.5	1.6	2.0	8.5	9.5	2.3	4.5	1.0	4.5	7.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	43.7	35.0	57.4	50.7	55.8	45.4	25.6	12.7	59.5	34.2	14.9
LnGrp LOS	E	D	C	E	D	E	D	C	B	E	C	B
Approach Vol, veh/h		1464			1031			695			1056	
Approach Delay, s/veh		46.6			53.1			29.6			38.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	53.6	12.9	36.9	24.3	46.0	18.4	31.3
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	16.5	34.9	9.5	* 38	11.2	* 40	18.4	29.0
Max Q Clear Time (g_c+I1), s	11.8	12.8	6.7	25.2	7.5	19.7	13.5	21.9
Green Ext Time (p_c), s	0.2	2.9	0.1	5.5	0.1	4.3	0.3	2.9

Intersection Summary	
HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Notes

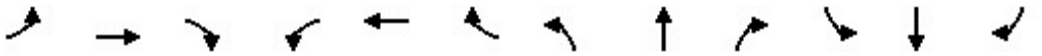
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	15	1424	70	94	1026	129	35	59	285	104	24
Future Volume (vph)	15	1424	70	94	1026	129	35	59	285	104	24
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	9.9	40.0	40.0	11.6	41.7	41.7	11.3	44.4	24.0	57.1	57.1
Total Split (%)	8.3%	33.3%	33.3%	9.7%	34.8%	34.8%	9.4%	37.0%	20.0%	47.6%	47.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.2	34.2	34.2	7.1	44.3	44.3	6.1	15.1	19.6	32.8	32.8
Actuated g/C Ratio	0.05	0.35	0.35	0.07	0.46	0.46	0.06	0.16	0.20	0.34	0.34
v/c Ratio	0.17	0.83	0.11	0.76	0.46	0.17	0.33	0.46	0.83	0.17	0.04
Control Delay	52.1	34.8	0.4	80.8	21.3	3.6	54.7	25.3	59.0	24.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	34.8	0.4	80.8	21.3	3.6	54.7	25.3	59.0	24.2	0.1
LOS	D	C	A	F	C	A	D	C	E	C	A
Approach Delay		33.3			24.0			31.1		46.8	
Approach LOS		C			C			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 31.4	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1424	70	94	1026	129	35	59	82	285	104	24
Future Volume (veh/h)	15	1424	70	94	1026	129	35	59	82	285	104	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	1483	38	98	1069	82	36	61	43	297	108	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	1847	561	125	2110	641	60	123	86	336	531	450
Arrive On Green	0.02	0.36	0.36	0.07	0.41	0.41	0.03	0.12	0.12	0.19	0.28	0.28
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	1021	720	1781	1870	1585
Grp Volume(v), veh/h	16	1483	38	98	1069	82	36	0	104	297	108	16
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1741	1781	1870	1585
Q Serve(g_s), s	0.7	21.7	1.3	4.5	12.9	1.2	1.7	0.0	4.6	13.5	3.6	0.6
Cycle Q Clear(g_c), s	0.7	21.7	1.3	4.5	12.9	1.2	1.7	0.0	4.6	13.5	3.6	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	33	1847	561	125	2110	641	60	0	209	336	531	450
V/C Ratio(X)	0.48	0.80	0.07	0.78	0.51	0.13	0.60	0.00	0.50	0.89	0.20	0.04
Avail Cap(c_a), veh/h	114	2076	631	150	2181	663	144	0	817	416	1163	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	23.9	17.4	38.0	18.1	2.9	39.6	0.0	34.2	32.9	22.6	21.5
Incr Delay (d2), s/veh	4.0	2.1	0.1	16.3	0.2	0.1	3.4	0.0	1.8	15.2	0.2	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	0.3	8.0	0.4	2.4	4.4	0.8	0.8	0.0	2.0	6.9	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	26.0	17.4	54.3	18.3	3.0	43.0	0.0	36.1	48.0	22.8	21.6
LnGrp LOS	D	C	B	D	B	A	D	A	D	D	C	C
Approach Vol, veh/h		1537			1249			140			421	
Approach Delay, s/veh		26.0			20.1			37.9			40.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	15.4	10.4	36.3	7.4	29.0	6.1	40.5
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	19.4	* 39	7.0	33.8	6.7	51.7	5.3	35.5
Max Q Clear Time (g_c+I1), s	15.5	6.6	6.5	23.7	3.7	5.6	2.7	14.9
Green Ext Time (p_c), s	0.2	0.5	0.0	6.3	0.0	0.6	0.0	7.1

Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

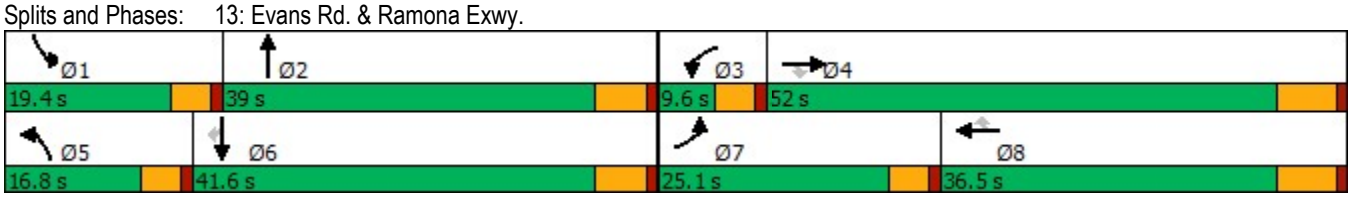
Notes

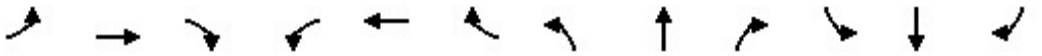
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	395	950	355	18	596	192	208	286	262	562	446
Future Volume (vph)	395	950	355	18	596	192	208	286	262	562	446
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	25.1	52.0	52.0	9.6	36.5	36.5	16.8	39.0	19.4	41.6	41.6
Total Split (%)	20.9%	43.3%	43.3%	8.0%	30.4%	30.4%	14.0%	32.5%	16.2%	34.7%	34.7%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	16.3	42.4	42.4	5.8	25.1	25.1	10.8	24.2	12.4	25.8	25.8
Actuated g/C Ratio	0.17	0.45	0.45	0.06	0.27	0.27	0.11	0.26	0.13	0.27	0.27
v/c Ratio	0.68	0.43	0.40	0.17	0.65	0.35	0.54	0.34	0.59	0.59	0.67
Control Delay	45.4	20.2	3.8	54.3	35.9	6.6	48.6	30.9	47.5	33.6	13.8
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	45.4	20.2	3.8	54.3	35.9	6.6	48.6	30.9	47.5	33.6	13.8
LOS	D	C	A	D	D	A	D	C	D	C	B
Approach Delay		22.6			29.3			38.2		29.5	
Approach LOS		C			C			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.7	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 62.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	395	950	355	18	596	192	208	286	12	262	562	446
Future Volume (veh/h)	395	950	355	18	596	192	208	286	12	262	562	446
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	403	969	0	18	608	118	212	292	9	267	573	359
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	521	1917		50	898	400	321	1016	31	380	1087	485
Arrive On Green	0.15	0.38	0.00	0.03	0.25	0.25	0.09	0.29	0.29	0.11	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3520	108	3456	3554	1585
Grp Volume(v), veh/h	403	969	0	18	608	118	212	147	154	267	573	359
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1851	1728	1777	1585
Q Serve(g_s), s	9.1	11.8	0.0	0.8	12.5	4.9	4.8	5.2	5.2	6.0	10.8	16.4
Cycle Q Clear(g_c), s	9.1	11.8	0.0	0.8	12.5	4.9	4.8	5.2	5.2	6.0	10.8	16.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	521	1917		50	898	400	321	513	535	380	1087	485
V/C Ratio(X)	0.77	0.51		0.36	0.68	0.29	0.66	0.29	0.29	0.70	0.53	0.74
Avail Cap(c_a), veh/h	902	3032		123	1429	637	547	769	801	658	1653	737
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	19.5	0.0	38.6	27.2	24.4	35.4	22.3	22.3	34.7	23.2	25.2
Incr Delay (d2), s/veh	0.9	0.2	0.0	1.6	0.9	0.4	0.9	0.3	0.3	0.9	0.4	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.0	0.0	0.3	4.8	1.7	1.9	2.0	2.1	2.4	4.2	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	19.7	0.0	40.2	28.1	24.8	36.3	22.6	22.6	35.6	23.6	27.4
LnGrp LOS	C	B		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1372	A		744			513			1199	
Approach Delay, s/veh		23.9			27.9			28.3			27.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	27.3	6.3	34.4	11.5	28.7	16.2	24.4
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	14.8	33.2	5.0	45.5	12.2	35.8	20.5	30.0
Max Q Clear Time (g_c+I1), s	8.0	7.2	2.8	13.8	6.8	18.4	11.1	14.5
Green Ext Time (p_c), s	0.3	1.5	0.0	6.6	0.2	4.5	0.5	3.5

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 5.2: E+P (WITH PROJECT IMPROVEMENTS + IMPROVEMENTS BY OTHERS) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

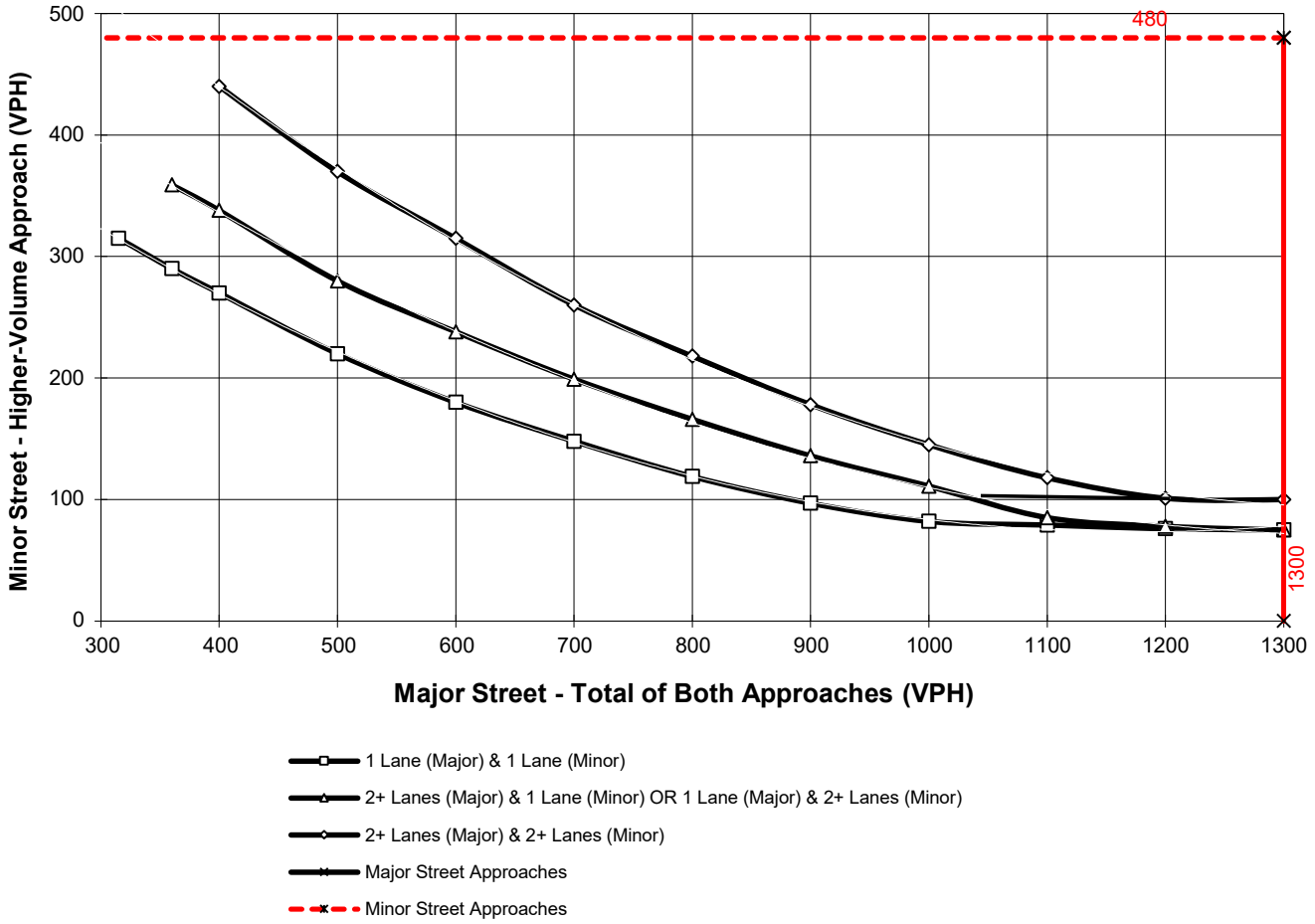
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Ramona Exwy.**
Total of Both Approaches (VPH) = **3199**
Number of Approach Lanes Major Street = **3**

Minor Street Name = **Nevada Rd.**
High Volume Approach (VPH) = **480**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC JB	DATE	09/13/23
Jurisdiction: **City of Perris**				CHK JB	DATE	09/13/23
Major Street: **Ramona Exwy.**				Critical Approach Speed (Major)		50 mph
Minor Street: **Driveway 3**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **3** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **52,490** vpd Minor Street Future ADT = **2,269** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied: XX (RURAL)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 / 1	8,000	5,600	2,400	1,680
2 + **52,490** / 1 **2,269**	9,600	6,720 *	2,400	1,680 *
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied: XX (RURAL)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 / 1	12,000	8,400	1,200	850
2 + **52,490** / 1 **2,269**	14,400	10,080 *	1,200	850 *
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied: XX (RURAL)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 100% B: 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC JB	DATE 09/13/23
Jurisdiction: City of Perris				CHK JB	DATE 09/13/23
Major Street: Webster				Critical Approach Speed (Major)	35 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,701** vpd Minor Street Future ADT = **297** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN XX RURAL

CONDITION A - Minimum Vehicular Volume

Satisfied Not Satisfied XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **7,701**	*1* **297**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied Not Satisfied XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **7,701**	*1* **297**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied Not Satisfied XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. A 12% B 25%

2 CONDITIONS 80% 2 CONDITIONS 80%

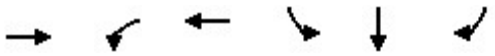
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 5.3: E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1014	413	932	287	290	118
v/c Ratio	0.74	0.88	0.38	0.82	0.83	0.28
Control Delay	29.2	41.1	2.8	60.7	61.3	8.2
Queue Delay	0.2	0.6	0.4	62.4	62.3	0.0
Total Delay	29.5	41.7	3.2	123.1	123.6	8.2
Queue Length 50th (ft)	286	90	35	200	202	0
Queue Length 95th (ft)	383	140	41	#320	#325	46
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1371	522	2432	389	390	457
Starvation Cap Reductn	0	13	874	0	0	0
Spillback Cap Reductn	46	0	0	198	199	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.81	0.60	1.50	1.52	0.26

Intersection Summary

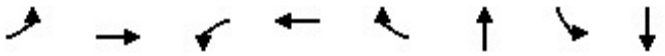
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	88	1054	977	658	169	173	666
v/c Ratio	0.65	0.63	0.74	0.76	0.24	0.24	0.93
Control Delay	61.5	32.9	35.8	16.9	20.5	20.5	47.5
Queue Delay	0.0	50.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	82.9	35.9	16.9	20.5	20.5	47.5
Queue Length 50th (ft)	66	417	336	140	74	76	382
Queue Length 95th (ft)	m90	487	421	313	123	126	#621
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	141	1664	1320	870	756	758	753
Starvation Cap Reductn	0	710	0	0	0	0	0
Spillback Cap Reductn	0	0	10	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	1.10	0.75	0.76	0.22	0.23	0.88

Intersection Summary

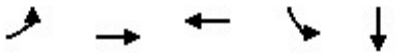
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	300	1402	14	1363	185	58	216	273
v/c Ratio	0.88	0.59	0.16	0.86	0.25	0.14	0.71	0.49
Control Delay	68.3	13.9	54.8	34.5	7.7	14.1	48.4	7.8
Queue Delay	0.0	0.5	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	68.3	14.3	54.8	35.1	7.7	14.1	48.4	7.8
Queue Length 50th (ft)	186	207	9	379	17	10	128	9
Queue Length 95th (ft)	#424	521	33	#681	74	39	204	69
Internal Link Dist (ft)		533		153		2377		233
Turn Bay Length (ft)	125		130					
Base Capacity (vph)	341	2375	87	1586	754	736	565	823
Starvation Cap Reductn	0	470	0	47	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	0.88	0.74	0.16	0.89	0.25	0.08	0.38	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	139	1432	1668	133	55
v/c Ratio	0.57	0.40	0.68	0.44	0.11
Control Delay	46.1	8.3	20.8	33.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	8.3	20.8	33.0	0.4
Queue Length 50th (ft)	59	81	186	55	0
Queue Length 95th (ft)	169	237	416	124	0
Internal Link Dist (ft)		294	330		252
Turn Bay Length (ft)	150				
Base Capacity (vph)	368	4330	3443	826	1015
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	0.38	0.33	0.48	0.16	0.05

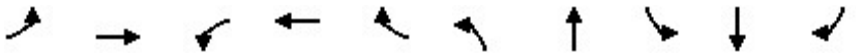
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	209	1260	21	1388	35	93	65	14	40	113
v/c Ratio	0.99	0.50	0.17	0.72	0.05	0.77	0.15	0.03	0.35	0.30
Control Delay	99.0	16.8	46.6	25.1	0.1	79.5	28.5	0.1	52.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.0	16.8	46.6	25.1	0.1	79.5	28.5	0.1	52.1	11.0
Queue Length 50th (ft)	97	109	9	189	0	43	27	0	18	8
Queue Length 95th (ft)	#374	337	44	397	0	#195	66	0	#79	49
Internal Link Dist (ft)		215		4013			2364			122
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	212	2901	128	2753	909	121	1016	914	113	937
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	0.99	0.43	0.16	0.50	0.04	0.77	0.06	0.02	0.35	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	127	1133	33	1373	60	43	120	19	68	47
v/c Ratio	0.55	0.44	0.24	0.69	0.08	0.30	0.16	0.15	0.11	0.11
Control Delay	47.7	15.9	48.6	24.4	0.2	48.7	23.2	48.1	31.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.9	48.6	24.4	0.2	48.7	23.2	48.1	31.3	0.5
Queue Length 50th (ft)	61	139	16	203	0	21	18	9	16	0
Queue Length 95th (ft)	159	284	59	406	0	71	48	41	37	0
Internal Link Dist (ft)		4013		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	343	3246	155	2725	930	171	1834	128	1782	881
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	0.35	0.21	0.50	0.06	0.25	0.07	0.15	0.04	0.05

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	348	661	97	87	1133	174	534	65	123	316	239
v/c Ratio	0.78	0.55	0.19	0.14	0.85	0.59	0.42	0.10	0.54	0.26	0.34
Control Delay	63.4	43.3	0.8	40.9	47.9	61.3	30.9	0.3	63.1	30.1	5.2
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	63.4	43.3	0.8	40.9	47.9	61.3	30.9	0.3	63.1	30.1	5.2
Queue Length 50th (ft)	135	177	0	27	294	68	170	0	47	96	0
Queue Length 95th (ft)	185	204	0	54	354	106	223	0	80	134	57
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	497	1841	685	613	1388	297	1281	680	251	1209	698
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	0.70	0.36	0.14	0.14	0.82	0.59	0.42	0.10	0.49	0.26	0.34

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	21	767	45	87	1259	470	41	256	78	38	10
v/c Ratio	0.15	0.48	0.07	0.42	0.60	0.51	0.26	0.57	0.39	0.07	0.02
Control Delay	48.1	25.7	0.2	46.0	21.8	4.7	47.7	30.1	46.2	24.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	25.7	0.2	46.0	21.8	4.7	47.7	30.1	46.2	24.4	0.1
Queue Length 50th (ft)	9	106	0	36	143	0	17	86	32	13	0
Queue Length 95th (ft)	43	224	0	115	357	74	68	205	106	42	0
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	152	2491	858	357	3008	1109	197	1061	331	1221	1076
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	0.14	0.31	0.05	0.24	0.42	0.42	0.21	0.24	0.24	0.03	0.01

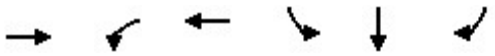
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	348	445	190	18	1023	310	416	514	193	261	417
v/c Ratio	0.76	0.18	0.22	0.19	0.84	0.44	0.79	0.53	0.58	0.34	0.83
Control Delay	59.1	18.1	3.9	59.3	41.3	10.6	57.6	35.2	56.8	37.1	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	18.1	3.9	59.3	41.3	10.6	57.6	35.2	56.8	37.1	36.0
Queue Length 50th (ft)	128	61	0	13	362	40	152	165	70	85	157
Queue Length 95th (ft)	#202	106	45	39	#510	122	#234	219	114	123	284
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	501	2529	882	93	1314	733	585	1253	383	1053	612
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	0.69	0.18	0.22	0.19	0.78	0.42	0.71	0.41	0.50	0.25	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1236	418	918	334	334	93
v/c Ratio	0.91	0.94	0.38	0.92	0.92	0.22
Control Delay	40.3	50.5	2.9	74.2	74.2	8.7
Queue Delay	0.8	0.4	0.3	72.0	72.0	0.0
Total Delay	41.1	50.9	3.2	146.2	146.2	8.7
Queue Length 50th (ft)	406	50	25	242	242	0
Queue Length 95th (ft)	#556	#438	37	#414	#414	42
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1362	458	2405	374	374	424
Starvation Cap Reductn	0	2	740	0	0	0
Spillback Cap Reductn	25	0	0	286	286	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.92	0.55	3.80	3.80	0.22

Intersection Summary

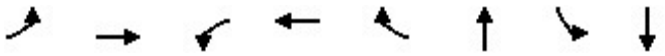
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	111	1366	913	546	218	223	494
v/c Ratio	0.63	0.68	0.61	0.60	0.39	0.40	0.86
Control Delay	45.9	30.1	28.4	9.9	29.4	29.5	44.5
Queue Delay	0.0	49.7	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	79.9	28.5	9.9	29.4	29.5	44.5
Queue Length 50th (ft)	82	530	271	60	120	124	274
Queue Length 95th (ft)	m90	m585	367	190	178	183	393
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	201	2001	1502	910	649	651	657
Starvation Cap Reductn	0	1003	0	0	0	0	0
Spillback Cap Reductn	0	0	35	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	1.37	0.62	0.60	0.34	0.34	0.75

Intersection Summary

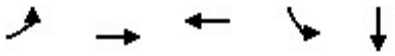
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	260	1639	23	1283	156	30	185	222
v/c Ratio	0.78	0.70	0.25	0.79	0.21	0.08	0.63	0.44
Control Delay	57.1	16.6	56.5	29.4	6.6	20.0	44.6	8.2
Queue Delay	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	57.1	17.6	56.5	29.6	6.6	20.0	44.6	8.2
Queue Length 50th (ft)	152	232	14	313	9	9	108	8
Queue Length 95th (ft)	#365	#689	46	#603	59	30	175	62
Internal Link Dist (ft)		533		153		2377		233
Turn Bay Length (ft)	125		130					
Base Capacity (vph)	349	2396	93	1758	814	779	605	821
Starvation Cap Reductn	0	454	0	89	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	0.74	0.84	0.25	0.77	0.19	0.04	0.31	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	113	1617	1517	102	47
v/c Ratio	0.49	0.46	0.56	0.35	0.09
Control Delay	44.6	8.4	17.2	32.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	8.5	17.2	32.0	0.4
Queue Length 50th (ft)	47	84	146	42	0
Queue Length 95th (ft)	141	278	367	98	0
Internal Link Dist (ft)		294	330		252
Turn Bay Length (ft)	150				
Base Capacity (vph)	393	4396	3666	884	1071
Starvation Cap Reductn	0	612	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.29	0.43	0.41	0.12	0.04

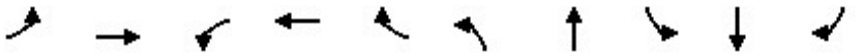
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	150	1533	16	1260	29	103	34	18	61	194
v/c Ratio	0.77	0.61	0.14	0.70	0.05	0.69	0.08	0.04	0.30	0.48
Control Delay	63.5	17.9	46.0	24.9	0.1	64.1	26.6	0.2	44.7	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	17.9	46.0	24.9	0.1	64.1	26.6	0.2	44.7	18.4
Queue Length 50th (ft)	64	147	7	163	0	44	13	0	26	38
Queue Length 95th (ft)	#272	434	36	347	0	#201	40	0	#127	107
Internal Link Dist (ft)		215		4013			2364			122
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	196	2996	117	2854	938	150	1075	961	205	1004
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	0.77	0.51	0.14	0.44	0.03	0.69	0.03	0.02	0.30	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	111	1392	48	1108	73	84	209	75	174	98
v/c Ratio	0.46	0.66	0.30	0.63	0.11	0.42	0.29	0.38	0.25	0.22
Control Delay	44.2	22.4	47.3	26.2	0.3	46.1	17.7	45.6	31.4	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	22.4	47.3	26.2	0.3	46.1	17.7	45.6	31.4	1.2
Queue Length 50th (ft)	49	197	22	164	0	38	24	34	41	0
Queue Length 95th (ft)	142	405	77	331	0	113	58	106	79	0
Internal Link Dist (ft)		4013		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	350	2992	193	2614	899	321	1963	273	2001	968
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	0.32	0.47	0.25	0.42	0.08	0.26	0.11	0.27	0.09	0.10

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	339	1053	149	137	912	177	461	112	289	646	245
v/c Ratio	0.76	0.76	0.27	0.48	0.80	0.55	0.37	0.17	0.72	0.49	0.33
Control Delay	61.4	43.5	3.8	58.4	48.8	59.1	31.7	1.5	61.7	31.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	43.5	3.8	58.4	48.8	59.1	31.7	1.5	61.7	31.3	6.0
Queue Length 50th (ft)	131	273	0	52	238	68	143	0	112	204	8
Queue Length 95th (ft)	179	308	31	87	287	106	204	9	157	273	66
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	526	1606	620	295	1224	320	1239	664	472	1322	733
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	0.64	0.66	0.24	0.46	0.75	0.55	0.37	0.17	0.61	0.49	0.33

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	16	1483	73	98	1069	134	36	146	297	108	25
v/c Ratio	0.17	0.83	0.11	0.76	0.46	0.17	0.33	0.46	0.83	0.17	0.04
Control Delay	52.1	34.8	0.4	80.8	21.3	3.6	54.7	25.3	59.0	24.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	34.8	0.4	80.8	21.3	3.6	54.7	25.3	59.0	24.2	0.1
Queue Length 50th (ft)	9	272	0	56	136	0	20	46	163	49	0
Queue Length 95th (ft)	36	#541	0	#187	319	34	63	98	#421	87	0
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	97	1791	646	129	2321	791	123	728	358	1004	905
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	0.16	0.83	0.11	0.76	0.46	0.17	0.29	0.20	0.83	0.11	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	403	969	362	18	608	196	212	304	267	573	455
v/c Ratio	0.68	0.43	0.40	0.17	0.65	0.35	0.54	0.34	0.59	0.59	0.67
Control Delay	45.4	20.2	3.8	54.3	35.9	6.6	48.6	30.9	47.5	33.6	13.8
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	45.4	20.2	3.8	54.3	35.9	6.6	48.6	30.9	47.5	33.6	13.8
Queue Length 50th (ft)	118	130	0	11	170	0	62	77	78	157	53
Queue Length 95th (ft)	206	241	59	39	281	56	122	134	147	247	178
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	797	2687	1007	109	1266	692	483	1357	582	1464	856
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	0.36	0.36	0.17	0.48	0.28	0.44	0.22	0.46	0.39	0.53

Intersection Summary

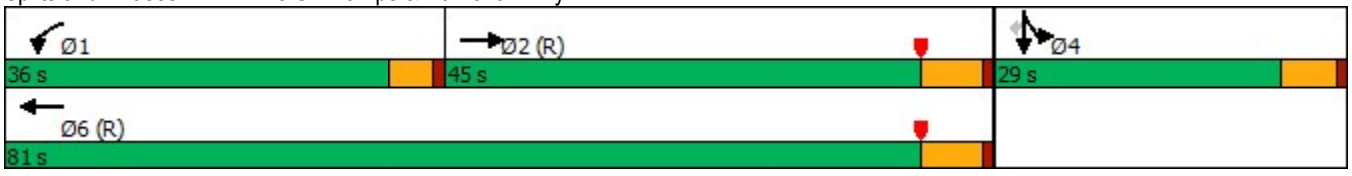
APPENDIX 6.1: EAC (2026) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

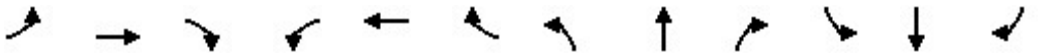
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Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	727	491	1218	1058	2	317
Future Volume (vph)	727	491	1218	1058	2	317
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	45.0	36.0	81.0	29.0	29.0	29.0
Total Split (%)	40.9%	32.7%	73.6%	26.4%	26.4%	26.4%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	39.0	31.5	75.0	23.5	23.5	23.5
Actuated g/C Ratio	0.35	0.29	0.68	0.21	0.21	0.21
v/c Ratio	1.00	1.02	0.53	1.55	1.55	0.82
Control Delay	56.7	61.1	3.3	293.3	293.8	47.3
Queue Delay	13.4	8.6	0.6	25.7	25.7	0.0
Total Delay	70.0	69.7	3.9	319.0	319.5	47.3
LOS	E	E	A	F	F	D
Approach Delay	70.0		22.8		256.6	
Approach LOS	E		C		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.55	
Intersection Signal Delay: 110.9	Intersection LOS: F
Intersection Capacity Utilization 176.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	727	502	491	1218	0	0	0	0	1058	2	317
Future Volume (veh/h)	0	727	502	491	1218	0	0	0	0	1058	2	317
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	765	379	517	1282	0				1115	0	288
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	817	404	510	2423	0				761	0	339
Arrive On Green	0.00	0.35	0.35	0.29	0.68	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	2397	1138	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	590	554	517	1282	0				1115	0	288
Grp Sat Flow(s),veh/h/ln	0	1777	1665	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	35.3	35.4	31.5	19.8	0.0				23.5	0.0	19.2
Cycle Q Clear(g_c), s	0.0	35.3	35.4	31.5	19.8	0.0				23.5	0.0	19.2
Prop In Lane	0.00		0.68	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	630	590	510	2423	0				761	0	339
V/C Ratio(X)	0.00	0.94	0.94	1.01	0.53	0.00				1.46	0.00	0.85
Avail Cap(c_a), veh/h	0	630	590	510	2423	0				761	0	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.34	0.34	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.3	34.3	39.2	8.7	0.0				43.3	0.0	41.6
Incr Delay (d2), s/veh	0.0	23.1	24.7	26.6	0.3	0.0				216.4	0.0	18.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.1	17.3	16.7	6.0	0.0				32.8	0.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	57.4	59.0	65.9	9.0	0.0				259.7	0.0	59.8
LnGrp LOS	A	E	E	F	A	A				F	A	E
Approach Vol, veh/h		1144			1799						1403	
Approach Delay, s/veh		58.2			25.3						218.7	
Approach LOS		E			C						F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	36.0	45.0		29.0		81.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	31.5	39.0		23.5		75.0						
Max Q Clear Time (g_c+I1), s	33.5	37.4		25.5		21.8						
Green Ext Time (p_c), s	0.0	0.8		0.0		6.4						

Intersection Summary												
HCM 6th Ctrl Delay			96.4									
HCM 6th LOS			F									

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	151	1634	1158	832	551	3	803
Future Volume (vph)	151	1634	1158	832	551	3	803
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	14.0	57.0	43.0	43.0	53.0	53.0	53.0
Total Split (%)	12.7%	51.8%	39.1%	39.1%	48.2%	48.2%	48.2%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	9.5	51.0	37.0	37.0	47.5	47.5	47.5
Actuated g/C Ratio	0.09	0.46	0.34	0.34	0.43	0.43	0.43
v/c Ratio	1.03	1.03	1.00	1.00	0.39	0.39	1.14
Control Delay	89.3	53.6	63.9	48.9	23.4	23.4	108.2
Queue Delay	0.0	31.1	13.6	0.0	0.0	0.0	0.0
Total Delay	89.3	84.6	77.5	48.9	23.4	23.4	108.2
LOS	F	F	E	D	C	C	F
Approach Delay		85.0	65.5			73.6	
Approach LOS		F	E			E	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 74.4	Intersection LOS: E
Intersection Capacity Utilization 176.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1634	0	0	1158	832	551	3	803	0	0	0
Future Volume (veh/h)	151	1634	0	0	1158	832	551	3	803	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	156	1685	0	0	1194	738	570	0	622			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	154	1713	0	0	1261	562	1473	0	655			
Arrive On Green	0.09	0.48	0.00	0.00	0.35	0.35	0.41	0.00	0.41			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	156	1685	0	0	1194	738	570	0	622			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	9.5	51.4	0.0	0.0	35.9	39.0	12.3	0.0	41.7			
Cycle Q Clear(g_c), s	9.5	51.4	0.0	0.0	35.9	39.0	12.3	0.0	41.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	154	1713	0	0	1261	562	1473	0	655			
V/C Ratio(X)	1.01	0.98	0.00	0.00	0.95	1.31	0.39	0.00	0.95			
Avail Cap(c_a), veh/h	154	1713	0	0	1261	562	1538	0	684			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.3	28.1	0.0	0.0	34.5	35.5	22.5	0.0	31.1			
Incr Delay (d2), s/veh	25.3	3.8	0.0	0.0	15.5	153.0	0.2	0.0	22.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	20.2	0.0	0.0	17.0	37.8	4.9	0.0	18.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.6	31.8	0.0	0.0	50.0	188.5	22.7	0.0	53.4			
LnGrp LOS	F	C	A	A	D	F	C	A	D			
Approach Vol, veh/h		1841			1932			1192				
Approach Delay, s/veh		35.5			102.9			38.7				
Approach LOS		D			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		59.0			14.0	45.0		51.0				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		51.0			9.5	37.0		47.5				
Max Q Clear Time (g_c+I1), s		53.4			11.5	41.0		43.7				
Green Ext Time (p_c), s		0.0			0.0	0.0		1.8				

Intersection Summary	
HCM 6th Ctrl Delay	62.5
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	77.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2495	237	31	1737	0	27	0	53	0	0	0
Future Vol, veh/h	0	2495	237	31	1737	0	27	0	53	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	125	-	-	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2546	242	32	1772	0	28	0	54	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1772	0	0	2788	0	0	3617	4503	1394
Stage 1	-	-	-	-	-	-	2667	2667	-
Stage 2	-	-	-	-	-	-	950	1836	-
Critical Hdwy	4.14	-	-	4.14	-	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	347	-	-	138	-	-	~ 4	1	131
Stage 1	-	-	-	-	-	-	38	46	-
Stage 2	-	-	-	-	-	-	336	125	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	347	-	-	138	-	-	~ 3	0	131
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 3	0	-
Stage 1	-	-	-	-	-	-	38	0	-
Stage 2	-	-	-	-	-	-	258	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	$ 4441.1
HCM LOS			F

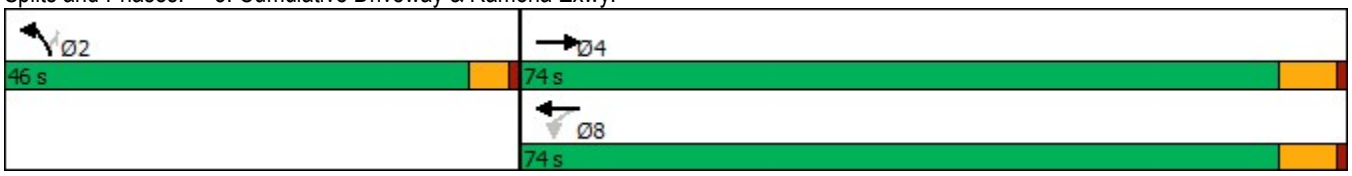
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	9	347	-	-	138	-	-
HCM Lane V/C Ratio	9.07	-	-	-	0.229	-	-
HCM Control Delay (s)	$ 4441.1	0	-	-	38.7	-	-
HCM Lane LOS	F	A	-	-	E	-	-
HCM 95th %tile Q(veh)	11.7	0	-	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	2291	242	1404	313	275
Future Volume (vph)	2291	242	1404	313	275
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	4		8	2	
Permitted Phases		8			2
Detector Phase	4	8	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	24.2	24.2	24.2	45.6	45.6
Total Split (s)	74.0	74.0	74.0	46.0	46.0
Total Split (%)	61.7%	61.7%	61.7%	38.3%	38.3%
Yellow Time (s)	5.2	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	4.6	4.6
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	68.3	68.3	68.3	25.0	25.0
Actuated g/C Ratio	0.66	0.66	0.66	0.24	0.24
v/c Ratio	0.81	3.65	0.46	0.80	0.78
Control Delay	17.4	1249.7	10.5	51.3	51.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	1249.7	10.5	51.3	51.1
LOS	B	F	B	D	D
Approach Delay	17.4		192.6	51.2	
Approach LOS	B		F	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.65	
Intersection Signal Delay: 83.0	Intersection LOS: F
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Cumulative Driveway & Ramona Exwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2291	173	242	1404	313	275
Future Volume (veh/h)	2291	173	242	1404	313	275
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2490	123	263	1526	340	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3388	166	124	3469	378	337
Arrive On Green	0.82	0.82	0.82	0.82	0.25	0.25
Sat Flow, veh/h	5155	244	117	5274	1781	1585
Grp Volume(v), veh/h	1692	921	263	1526	340	158
Grp Sat Flow(s),veh/h/ln	1702	1826	117	1702	1781	1585
Q Serve(g_s), s	22.7	23.6	44.2	8.6	18.4	8.4
Cycle Q Clear(g_c), s	22.7	23.6	67.8	8.6	18.4	8.4
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2313	1241	124	3469	378	337
V/C Ratio(X)	0.73	0.74	2.12	0.44	0.90	0.47
Avail Cap(c_a), veh/h	2313	1241	124	3469	739	658
HCM Platoon Ratio	1.20	1.20	1.20	1.20	1.20	1.20
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	5.1	33.9	3.8	36.1	32.4
Incr Delay (d2), s/veh	1.2	2.4	529.7	0.1	3.2	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	3.9	4.7	21.1	1.8	8.0	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.3	7.6	563.6	3.8	39.3	32.8
LnGrp LOS	A	A	F	A	D	C
Approach Vol, veh/h	2613			1789	498	
Approach Delay, s/veh	6.7			86.1	37.2	
Approach LOS	A			F	D	

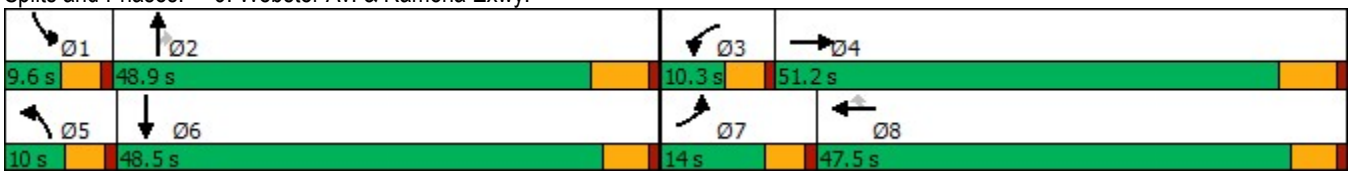
Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.8	74.0	74.0
Change Period (Y+Rc), s	4.6	6.2	6.2
Max Green Setting (Gmax), s	41.4	67.8	67.8
Max Q Clear Time (g_c+I1), s	20.4	25.6	69.8
Green Ext Time (p_c), s	0.8	29.5	0.0

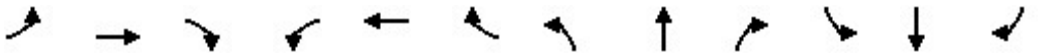
Intersection Summary	
HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	226	1859	68	1794	36	105	79	39	43	35
Future Volume (vph)	226	1859	68	1794	36	105	79	39	43	35
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	14.0	51.2	10.3	47.5	47.5	10.0	48.9	48.9	9.6	48.5
Total Split (%)	11.7%	42.7%	8.6%	39.6%	39.6%	8.3%	40.8%	40.8%	8.0%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.5	45.7	5.8	43.0	43.0	5.5	17.0	17.0	5.1	15.7
Actuated g/C Ratio	0.10	0.49	0.06	0.46	0.46	0.06	0.18	0.18	0.05	0.17
v/c Ratio	1.28	0.82	0.63	0.78	0.05	1.04	0.24	0.11	0.46	0.37
Control Delay	198.8	25.6	71.3	25.9	0.1	144.5	34.2	0.6	62.1	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	198.8	25.6	71.3	25.9	0.1	144.5	34.2	0.6	62.1	13.8
LOS	F	C	E	C	A	F	C	A	E	B
Approach Delay		43.2		27.0			80.1			25.9
Approach LOS		D		C			F			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.28	
Intersection Signal Delay: 37.6	Intersection LOS: D
Intersection Capacity Utilization 77.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	1859	133	68	1794	36	105	79	39	43	35	94
Future Volume (veh/h)	226	1859	133	68	1794	36	105	79	39	43	35	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	231	1897	120	69	1831	32	107	81	34	44	36	51
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	2510	158	89	2294	712	114	270	229	68	82	116
Arrive On Green	0.11	0.51	0.51	0.05	0.45	0.45	0.06	0.14	0.14	0.04	0.12	0.12
Sat Flow, veh/h	1781	4909	310	1781	5106	1585	1781	1870	1585	1781	694	983
Grp Volume(v), veh/h	231	1314	703	69	1831	32	107	81	34	44	0	87
Grp Sat Flow(s),veh/h/ln	1781	1702	1815	1781	1702	1585	1781	1870	1585	1781	0	1677
Q Serve(g_s), s	9.4	25.9	26.0	3.2	25.9	1.0	5.0	3.3	1.6	2.1	0.0	4.1
Cycle Q Clear(g_c), s	9.4	25.9	26.0	3.2	25.9	1.0	5.0	3.3	1.6	2.1	0.0	4.1
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	199	1740	928	89	2294	712	114	270	229	68	0	199
V/C Ratio(X)	1.16	0.75	0.76	0.78	0.80	0.04	0.94	0.30	0.15	0.65	0.00	0.44
Avail Cap(c_a), veh/h	199	1819	970	121	2571	798	114	948	804	106	0	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.4	16.4	16.4	39.6	19.9	13.0	39.2	32.2	31.5	39.9	0.0	34.5
Incr Delay (d2), s/veh	114.2	1.8	3.4	13.5	1.7	0.0	63.7	0.6	0.3	3.8	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	10.1	8.6	9.6	1.7	9.0	0.3	4.2	1.5	0.6	0.9	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	151.6	18.1	19.8	53.0	21.6	13.1	102.9	32.8	31.8	43.7	0.0	36.0
LnGrp LOS	F	B	B	D	C	B	F	C	C	D	A	D
Approach Vol, veh/h		2248			1932			222			131	
Approach Delay, s/veh		32.4			22.6			66.4			38.6	
Approach LOS		C			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	18.4	8.8	49.2	10.0	16.2	14.0	44.0
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.0	42.7	5.7	45.0	5.4	* 43	9.4	* 42
Max Q Clear Time (g_c+I1), s	4.1	5.3	5.2	28.0	7.0	6.1	11.4	27.9
Green Ext Time (p_c), s	0.0	0.5	0.0	11.6	0.0	0.5	0.0	9.9

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

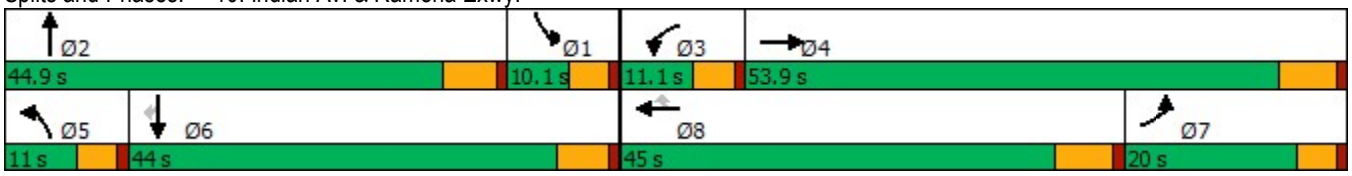
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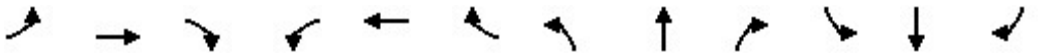
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	281	1667	55	1713	139	35	102	71	89	143
Future Volume (vph)	281	1667	55	1713	139	35	102	71	89	143
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	20.0	53.9	11.1	45.0	45.0	11.0	44.9	10.1	44.0	44.0
Total Split (%)	16.7%	44.9%	9.3%	37.5%	37.5%	9.2%	37.4%	8.4%	36.7%	36.7%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.6	50.6	6.3	39.2	39.2	5.9	14.7	5.9	18.8	18.8
Actuated g/C Ratio	0.16	0.52	0.07	0.40	0.40	0.06	0.15	0.06	0.19	0.19
v/c Ratio	1.03	0.67	0.50	0.87	0.19	0.33	0.30	0.69	0.14	0.34
Control Delay	103.7	20.9	62.0	33.1	2.9	55.1	22.7	77.9	33.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.7	20.9	62.0	33.1	2.9	55.1	22.7	77.9	33.5	5.7
LOS	F	C	E	C	A	E	C	E	C	A
Approach Delay		32.6		31.7			28.3		30.8	
Approach LOS		C		C			C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 31.9	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	1667	47	55	1713	139	35	102	61	71	89	143
Future Volume (veh/h)	281	1667	47	55	1713	139	35	102	61	71	89	143
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	293	1736	42	57	1784	119	36	106	44	74	93	124
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	2821	68	75	2072	643	58	272	108	95	509	227
Arrive On Green	0.17	0.55	0.55	0.04	0.41	0.41	0.03	0.11	0.11	0.05	0.14	0.14
Sat Flow, veh/h	1781	5128	124	1781	5106	1585	1781	2488	983	1781	3554	1585
Grp Volume(v), veh/h	293	1152	626	57	1784	119	36	74	76	74	93	124
Grp Sat Flow(s),veh/h/ln	1781	1702	1848	1781	1702	1585	1781	1777	1693	1781	1777	1585
Q Serve(g_s), s	14.9	21.0	21.0	2.9	29.1	4.4	1.8	3.5	3.8	3.7	2.1	4.3
Cycle Q Clear(g_c), s	14.9	21.0	21.0	2.9	29.1	4.4	1.8	3.5	3.8	3.7	2.1	4.3
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	300	1873	1017	75	2072	643	58	195	185	95	509	227
V/C Ratio(X)	0.98	0.62	0.62	0.76	0.86	0.19	0.62	0.38	0.41	0.78	0.18	0.55
Avail Cap(c_a), veh/h	300	1873	1017	127	2169	673	125	761	725	107	1486	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	14.0	14.0	43.3	24.8	17.4	43.6	37.8	37.9	42.7	34.4	15.4
Incr Delay (d2), s/veh	44.9	0.6	1.1	6.0	3.7	0.1	3.9	1.2	1.4	23.3	0.2	2.0
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	9.8	6.8	7.5	1.3	11.0	1.5	0.8	1.6	1.6	2.2	0.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	14.6	15.1	49.3	28.4	17.6	47.5	39.0	39.4	66.0	34.6	17.4
LnGrp LOS	F	B	B	D	C	B	D	D	D	E	C	B
Approach Vol, veh/h		2071			1960			186			291	
Approach Delay, s/veh		24.4			28.4			40.8			35.3	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	15.8	8.4	56.4	7.6	18.9	21.6	43.3
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	5.5	* 39	6.5	47.7	6.4	38.2	15.4	* 39
Max Q Clear Time (g_c+I1), s	5.7	5.8	4.9	23.0	3.8	6.3	16.9	31.1
Green Ext Time (p_c), s	0.0	0.8	0.0	12.8	0.0	0.9	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

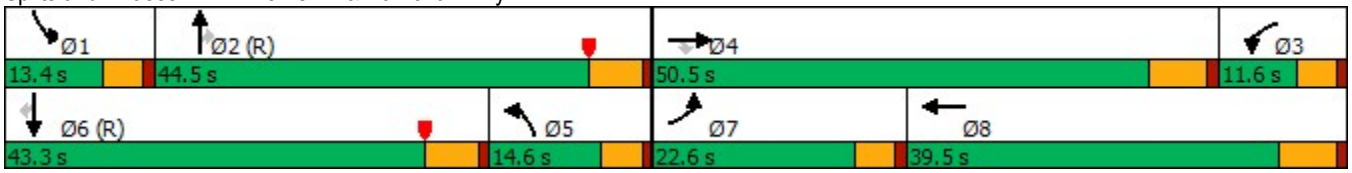
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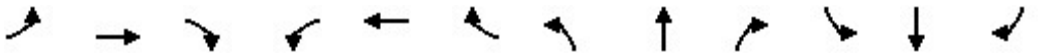
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	522	1121	156	155	1334	229	706	81	351	401	365
Future Volume (vph)	522	1121	156	155	1334	229	706	81	351	401	365
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	22.6	50.5	50.5	11.6	39.5	14.6	44.5	44.5	13.4	43.3	43.3
Total Split (%)	18.8%	42.1%	42.1%	9.7%	32.9%	12.2%	37.1%	37.1%	11.2%	36.1%	36.1%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.0	36.6	36.6	14.7	33.3	10.0	38.7	38.7	8.8	37.5	37.5
Actuated g/C Ratio	0.15	0.30	0.30	0.12	0.28	0.08	0.32	0.32	0.07	0.31	0.31
v/c Ratio	1.04	0.74	0.26	0.38	1.14	0.82	0.63	0.13	1.43	0.37	0.50
Control Delay	99.2	40.1	4.0	53.3	111.6	76.7	37.6	0.4	253.3	33.3	5.7
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	99.2	40.1	4.0	53.3	111.6	76.7	37.6	0.4	253.3	33.3	5.7
LOS	F	D	A	D	F	E	D	A	F	C	A
Approach Delay		54.2			106.3		43.4			93.4	
Approach LOS		D			F		D			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38.2 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.43	
Intersection Signal Delay: 75.9	Intersection LOS: E
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	522	1121	156	155	1334	231	229	706	81	351	401	365
Future Volume (veh/h)	522	1121	156	155	1334	231	229	706	81	351	401	365
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	533	1144	115	158	1361	219	234	720	32	358	409	281
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	518	1448	449	451	1230	198	735	1642	732	253	1111	495
Arrive On Green	0.15	0.28	0.28	0.13	0.28	0.28	0.21	0.46	0.46	0.07	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	3456	4433	713	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	533	1144	115	158	1045	535	234	720	32	358	409	281
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1742	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	18.0	24.8	6.7	5.0	33.3	33.3	6.9	16.4	1.1	8.8	10.7	15.3
Cycle Q Clear(g_c), s	18.0	24.8	6.7	5.0	33.3	33.3	6.9	16.4	1.1	8.8	10.7	15.3
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	518	1448	449	451	945	483	735	1642	732	253	1111	495
V/C Ratio(X)	1.03	0.79	0.26	0.35	1.11	1.11	0.32	0.44	0.04	1.41	0.37	0.57
Avail Cap(c_a), veh/h	518	1885	585	451	945	483	735	1642	732	253	1111	495
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)	0.68	0.68	0.68	0.18	0.18	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	39.7	33.2	47.5	43.3	43.4	39.9	21.8	12.2	55.6	32.0	25.4
Incr Delay (d2), s/veh	40.0	1.2	0.2	0.0	51.1	54.2	0.1	0.9	0.1	207.5	0.9	4.7
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	10.4	10.0	2.5	2.1	20.0	20.8	2.9	6.7	0.5	11.0	4.6	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.0	40.9	33.4	47.6	94.5	97.6	40.0	22.6	12.3	263.1	33.0	30.1
LnGrp LOS	F	D	C	D	F	F	D	C	B	F	C	C
Approach Vol, veh/h		1792			1738			986			1048	
Approach Delay, s/veh		55.3			91.2			26.4			110.8	
Approach LOS		E			F			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	61.3	21.9	40.2	31.4	43.3	22.6	39.5
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	8.8	38.7	7.0	* 44	10.0	* 38	18.0	33.3
Max Q Clear Time (g_c+I1), s	10.8	18.4	7.0	26.8	8.9	17.3	20.0	35.3
Green Ext Time (p_c), s	0.0	4.5	0.0	7.2	0.1	3.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	71.8
HCM 6th LOS	E

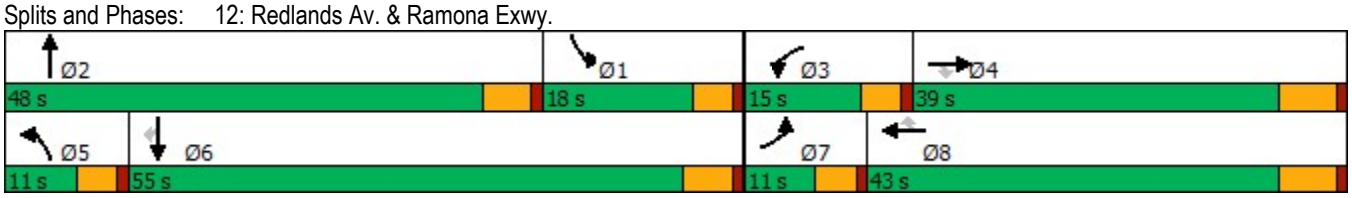
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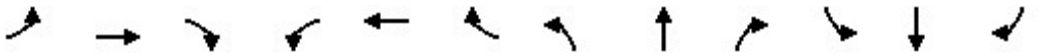
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	260	1294	70	143	1772	574	82	178	211	147	71
Future Volume (vph)	260	1294	70	143	1772	574	82	178	211	147	71
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	11.0	39.0	39.0	15.0	43.0	43.0	11.0	48.0	18.0	55.0	55.0
Total Split (%)	9.2%	32.5%	32.5%	12.5%	35.8%	35.8%	9.2%	40.0%	15.0%	45.8%	45.8%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	6.4	33.0	33.0	10.5	37.0	37.0	6.4	26.7	13.5	33.7	33.7
Actuated g/C Ratio	0.06	0.32	0.32	0.10	0.35	0.35	0.06	0.26	0.13	0.32	0.32
v/c Ratio	2.45	0.82	0.12	0.82	1.00	0.71	0.78	0.84	0.94	0.25	0.12
Control Delay	699.7	39.3	0.4	82.8	57.1	13.3	92.4	47.0	94.4	26.4	1.6
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	699.7	39.3	0.4	82.8	57.1	13.3	92.4	47.0	94.4	26.4	1.6
LOS	F	D	A	F	E	B	F	D	F	C	A
Approach Delay		143.3			48.5			54.9		55.8	
Approach LOS		F			D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.5	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.45	
Intersection Signal Delay: 80.4	Intersection LOS: F
Intersection Capacity Utilization 99.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	1294	70	143	1772	574	82	178	210	211	147	71
Future Volume (veh/h)	260	1294	70	143	1772	574	82	178	210	211	147	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	265	1320	61	146	1808	460	84	182	179	215	150	67
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	1634	497	175	1820	553	107	209	205	231	599	500
Arrive On Green	0.06	0.32	0.32	0.10	0.36	0.36	0.06	0.24	0.24	0.13	0.32	0.32
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	860	845	1781	1870	1561
Grp Volume(v), veh/h	265	1320	61	146	1808	460	84	0	361	215	150	67
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1705	1781	1870	1561
Q Serve(g_s), s	6.4	24.5	2.9	8.3	36.4	17.5	4.8	0.0	21.0	12.3	6.1	3.1
Cycle Q Clear(g_c), s	6.4	24.5	2.9	8.3	36.4	17.5	4.8	0.0	21.0	12.3	6.1	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	110	1634	497	175	1820	553	107	0	414	231	599	500
V/C Ratio(X)	2.40	0.81	0.12	0.83	0.99	0.83	0.79	0.00	0.87	0.93	0.25	0.13
Avail Cap(c_a), veh/h	110	1634	497	179	1820	553	110	0	704	231	898	750
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	32.2	24.8	45.7	33.1	11.8	47.9	0.0	37.6	44.5	25.9	24.9
Incr Delay (d2), s/veh	656.8	3.1	0.1	25.2	19.5	10.4	27.1	0.0	6.4	39.8	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.9	9.8	1.0	4.7	17.0	6.6	2.9	0.0	9.2	7.8	2.7	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	705.3	35.3	25.0	71.0	52.6	22.2	75.0	0.0	43.9	84.3	26.2	25.0
LnGrp LOS	F	D	C	E	D	C	E	A	D	F	C	C
Approach Vol, veh/h		1646			2414			445			432	
Approach Delay, s/veh		142.8			47.9			49.8			54.9	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	30.5	14.8	39.2	10.8	38.5	11.0	43.0
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	13.4	* 43	10.4	32.8	6.4	49.6	6.4	36.8
Max Q Clear Time (g_c+I1), s	14.3	23.0	10.3	26.5	6.8	8.1	8.4	38.4
Green Ext Time (p_c), s	0.0	2.0	0.0	4.0	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	80.3
HCM 6th LOS	F

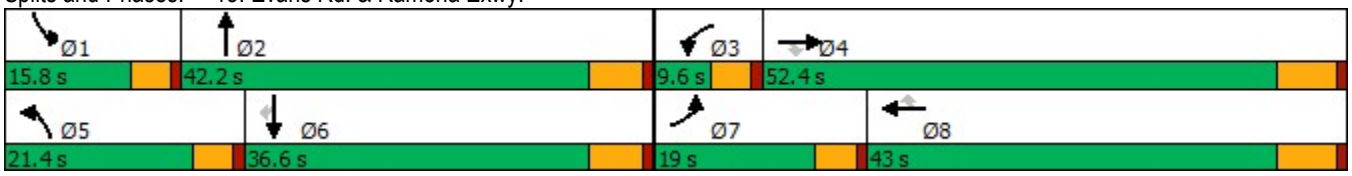
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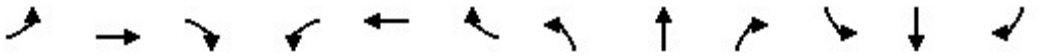
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	372	1137	206	19	1573	349	457	510	280	274	458
Future Volume (vph)	372	1137	206	19	1573	349	457	510	280	274	458
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	19.0	52.4	52.4	9.6	43.0	43.0	21.4	42.2	15.8	36.6	36.6
Total Split (%)	15.8%	43.7%	43.7%	8.0%	35.8%	35.8%	17.8%	35.2%	13.2%	30.5%	30.5%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	14.8	54.2	54.2	5.6	39.1	39.1	17.5	34.0	11.7	28.2	28.2
Actuated g/C Ratio	0.13	0.47	0.47	0.05	0.34	0.34	0.15	0.29	0.10	0.24	0.24
v/c Ratio	0.88	0.50	0.25	0.24	1.37	0.55	0.92	0.54	0.84	0.33	0.89
Control Delay	72.7	23.6	3.8	61.8	203.4	18.2	73.4	35.9	73.6	36.7	44.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.7	23.6	3.8	61.8	203.4	18.2	73.4	35.9	73.6	36.7	44.1
LOS	E	C	A	E	F	B	E	D	E	D	D
Approach Delay		31.9			168.6			53.1		50.3	
Approach LOS		C			F			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.37	
Intersection Signal Delay: 85.8	Intersection LOS: F
Intersection Capacity Utilization 94.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	1137	206	19	1573	349	457	510	30	280	274	458
Future Volume (veh/h)	372	1137	206	19	1573	349	457	510	30	280	274	458
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	388	1184	0	20	1639	268	476	531	19	292	285	381
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	2183		45	1162	518	504	1099	39	342	949	423
Arrive On Green	0.13	0.43	0.00	0.03	0.33	0.33	0.15	0.31	0.31	0.10	0.27	0.27
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3498	125	3456	3554	1585
Grp Volume(v), veh/h	388	1184	0	20	1639	268	476	269	281	292	285	381
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1846	1728	1777	1585
Q Serve(g_s), s	13.2	20.6	0.0	1.3	39.0	16.3	16.3	14.6	14.7	9.9	7.6	27.7
Cycle Q Clear(g_c), s	13.2	20.6	0.0	1.3	39.0	16.3	16.3	14.6	14.7	9.9	7.6	27.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	435	2183		45	1162	518	504	558	580	342	949	423
V/C Ratio(X)	0.89	0.54		0.44	1.41	0.52	0.94	0.48	0.48	0.85	0.30	0.90
Avail Cap(c_a), veh/h	435	2183		84	1162	518	504	569	591	342	971	433
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	25.4	0.0	57.3	40.1	32.5	50.4	33.1	33.1	52.9	34.8	42.2
Incr Delay (d2), s/veh	19.7	0.3	0.0	2.5	189.8	0.9	26.4	0.6	0.6	17.7	0.2	21.1
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	6.6	7.7	0.0	0.6	46.4	6.0	8.7	6.2	6.4	5.0	3.2	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	25.7	0.0	59.8	230.0	33.4	76.8	33.7	33.7	70.6	35.0	63.2
LnGrp LOS	E	C		E	F	C	E	C	C	E	C	E
Approach Vol, veh/h		1572	A		1927			1026			958	
Approach Delay, s/veh		36.9			200.9			53.7			57.1	
Approach LOS		D			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	41.5	7.0	55.0	21.4	35.9	19.0	43.0
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	11.2	36.4	5.0	45.9	16.8	30.8	14.4	36.5
Max Q Clear Time (g_c+I1), s	11.9	16.7	3.3	22.6	18.3	29.7	15.2	41.0
Green Ext Time (p_c), s	0.0	2.8	0.0	7.8	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	101.2
HCM 6th LOS	F

Notes

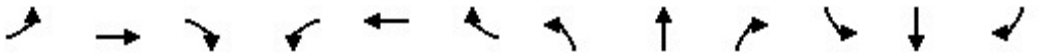
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1116	634	1149	1002	0	173
Future Volume (vph)	1116	634	1149	1002	0	173
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	48.0	32.6	80.6	29.4	29.4	29.4
Total Split (%)	43.6%	29.6%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	42.0	28.1	74.6	23.9	23.9	23.9
Actuated g/C Ratio	0.38	0.26	0.68	0.22	0.22	0.22
v/c Ratio	1.35	1.43	0.49	1.40	1.40	0.41
Control Delay	190.0	228.3	2.9	230.1	230.1	17.9
Queue Delay	0.1	0.0	0.4	66.8	66.8	0.0
Total Delay	190.1	228.3	3.3	296.9	296.9	17.9
LOS	F	F	A	F	F	B
Approach Delay	190.1		83.3		255.7	
Approach LOS	F		F		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.43	
Intersection Signal Delay: 166.2	Intersection LOS: F
Intersection Capacity Utilization 190.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1116	675	634	1149	0	0	0	0	1002	0	173
Future Volume (veh/h)	0	1116	675	634	1149	0	0	0	0	1002	0	173
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1139	511	647	1172	0				1022	0	135
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	2	2	2	2	0				2	2	2
Cap, veh/h	0	922	399	455	2410	0				774	0	344
Arrive On Green	0.00	0.38	0.38	0.26	0.68	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	2508	1045	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	827	823	647	1172	0				1022	0	135
Grp Sat Flow(s),veh/h/ln	0	1777	1682	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	42.0	42.0	28.1	17.4	0.0				23.9	0.0	8.0
Cycle Q Clear(g_c), s	0.0	42.0	42.0	28.1	17.4	0.0				23.9	0.0	8.0
Prop In Lane	0.00		0.62	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	678	642	455	2410	0				774	0	344
V/C Ratio(X)	0.00	1.22	1.28	1.42	0.49	0.00				1.32	0.00	0.39
Avail Cap(c_a), veh/h	0	678	642	455	2410	0				774	0	344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.35	0.35	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.0	34.0	41.0	8.5	0.0				43.0	0.0	36.8
Incr Delay (d2), s/veh	0.0	111.6	138.3	194.4	0.2	0.0				153.2	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	37.6	40.4	36.2	5.4	0.0				26.5	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	145.6	172.3	235.3	8.7	0.0				196.2	0.0	37.6
LnGrp LOS	A	F	F	F	A	A				F	A	D
Approach Vol, veh/h		1650			1819						1157	
Approach Delay, s/veh		158.9			89.3						177.7	
Approach LOS		F			F						F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.6	48.0		29.4		80.6						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	28.1	42.0		23.9		74.6						
Max Q Clear Time (g_c+I1), s	30.1	44.0		25.9		19.4						
Green Ext Time (p_c), s	0.0	0.0		0.0		5.6						

Intersection Summary												
HCM 6th Ctrl Delay			136.2									
HCM 6th LOS			F									

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	313	1807	1190	1056	543	4	567
Future Volume (vph)	313	1807	1190	1056	543	4	567
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	18.0	63.0	45.0	45.0	47.0	47.0	47.0
Total Split (%)	16.4%	57.3%	40.9%	40.9%	42.7%	42.7%	42.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	15.0	58.5	39.0	39.0	40.0	40.0	40.0
Actuated g/C Ratio	0.14	0.53	0.35	0.35	0.36	0.36	0.36
v/c Ratio	1.34	0.99	0.98	1.14	0.46	0.46	0.94
Control Delay	189.7	40.4	56.4	90.9	29.2	29.3	54.1
Queue Delay	0.0	41.3	40.4	0.0	0.0	0.0	0.0
Total Delay	189.7	81.7	96.8	90.9	29.2	29.3	54.1
LOS	F	F	F	F	C	C	D
Approach Delay		97.7	94.0			41.9	
Approach LOS		F	F			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 84.8	Intersection LOS: F
Intersection Capacity Utilization 190.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1807	0	0	1190	1056	543	4	567	0	0	0
Future Volume (veh/h)	313	1807	0	0	1190	1056	543	4	567	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	323	1863	0	0	1227	955	563	0	436			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	219	2091	0	0	1509	673	1094	0	487			
Arrive On Green	0.25	1.00	0.00	0.00	0.42	0.42	0.31	0.00	0.31			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	323	1863	0	0	1227	955	563	0	436			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	13.5	0.0	0.0	0.0	33.4	46.7	14.3	0.0	28.9			
Cycle Q Clear(g_c), s	13.5	0.0	0.0	0.0	33.4	46.7	14.3	0.0	28.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	219	2091	0	0	1509	673	1094	0	487			
V/C Ratio(X)	1.48	0.89	0.00	0.00	0.81	1.42	0.51	0.00	0.90			
Avail Cap(c_a), veh/h	219	2091	0	0	1509	673	1344	0	598			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.5	0.0	0.0	0.0	27.8	31.6	31.4	0.0	36.4			
Incr Delay (d2), s/veh	217.1	0.6	0.0	0.0	4.9	197.2	0.4	0.0	14.0			
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	18.0	0.2	0.0	0.0	13.9	53.0	6.0	0.0	12.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	258.6	0.6	0.0	0.0	32.7	228.8	31.7	0.0	50.4			
LnGrp LOS	F	A	A	A	C	F	C	A	D			
Approach Vol, veh/h		2186			2182			999				
Approach Delay, s/veh		38.8			118.5			39.9				
Approach LOS		D			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		70.7			18.0	52.7		39.3				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		57.0			13.5	39.0		41.5				
Max Q Clear Time (g_c+I1), s		2.0			15.5	48.7		30.9				
Green Ext Time (p_c), s		12.7			0.0	0.0		2.9				

Intersection Summary	
HCM 6th Ctrl Delay	71.4
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	60.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2308	191	34	1590	0	32	0	25	0	0	0
Future Vol, veh/h	0	2308	191	34	1590	0	32	0	25	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	125	-	-	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2429	201	36	1674	0	34	0	26	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1674	0	0	2630	0	0	3439	4276	1315
Stage 1	-	-	-	-	-	-	2530	2530	-
Stage 2	-	-	-	-	-	-	909	1746	-
Critical Hdwy	4.14	-	-	4.14	-	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	379	-	-	159	-	-	~ 5	2	148
Stage 1	-	-	-	-	-	-	46	55	-
Stage 2	-	-	-	-	-	-	353	139	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	379	-	-	159	-	-	~ 4	0	148
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	0	-
Stage 1	-	-	-	-	-	-	46	0	-
Stage 2	-	-	-	-	-	-	273	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	$ 4433.2
HCM LOS			F

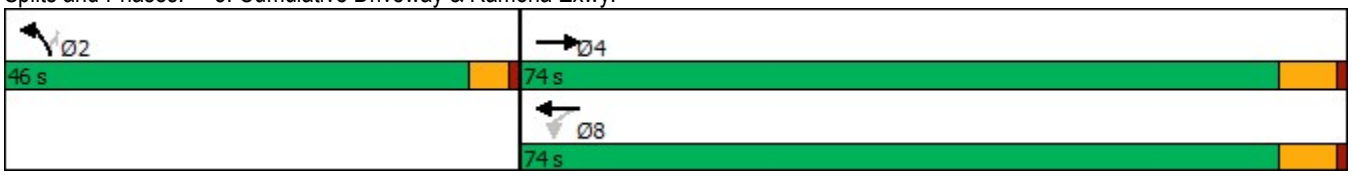
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	7	379	-	-	159	-	-
HCM Lane V/C Ratio	8.571	-	-	-	0.225	-	-
HCM Control Delay (s)	$ 4433.2	0	-	-	34.1	-	-
HCM Lane LOS	F	A	-	-	D	-	-
HCM 95th %tile Q(veh)	9.1	0	-	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	2158	142	1374	203	166
Future Volume (vph)	2158	142	1374	203	166
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	4		8	2	
Permitted Phases		8			2
Detector Phase	4	8	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	24.2	24.2	24.2	45.6	45.6
Total Split (s)	74.0	74.0	74.0	46.0	46.0
Total Split (%)	61.7%	61.7%	61.7%	38.3%	38.3%
Yellow Time (s)	5.2	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	4.6	4.6
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	68.6	68.6	68.6	19.0	19.0
Actuated g/C Ratio	0.70	0.70	0.70	0.19	0.19
v/c Ratio	0.70	2.05	0.42	0.65	0.58
Control Delay	12.2	538.4	8.3	44.7	42.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	538.4	8.3	44.7	42.3
LOS	B	F	A	D	D
Approach Delay	12.2		57.8	43.6	
Approach LOS	B		E	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 98.5	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.05	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Cumulative Driveway & Ramona Exwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2158	104	142	1374	203	166
Future Volume (veh/h)	2158	104	142	1374	203	166
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2346	113	154	1493	221	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3664	175	146	3747	266	236
Arrive On Green	0.73	0.73	0.73	0.73	0.15	0.15
Sat Flow, veh/h	5161	239	137	5274	1781	1585
Grp Volume(v), veh/h	1594	865	154	1493	221	180
Grp Sat Flow(s),veh/h/ln	1702	1827	137	1702	1781	1585
Q Serve(g_s), s	21.6	22.1	45.7	10.2	11.1	10.1
Cycle Q Clear(g_c), s	21.6	22.1	67.8	10.2	11.1	10.1
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2498	1341	146	3747	266	236
V/C Ratio(X)	0.64	0.64	1.06	0.40	0.83	0.76
Avail Cap(c_a), veh/h	2498	1341	146	3747	798	710
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	6.2	6.2	35.6	4.6	38.2	37.7
Incr Delay (d2), s/veh	0.5	1.1	90.8	0.1	2.6	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	7.2	7.0	2.9	5.0	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.7	7.3	126.4	4.7	40.8	39.6
LnGrp LOS	A	A	F	A	D	D
Approach Vol, veh/h	2459			1647	401	
Approach Delay, s/veh	6.9			16.1	40.3	
Approach LOS	A			B	D	

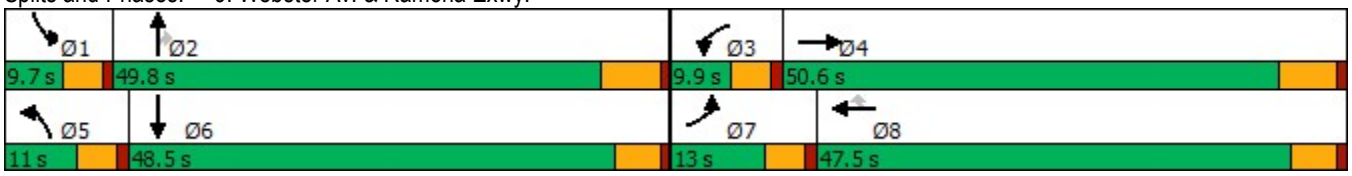
Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	18.4	74.0	74.0
Change Period (Y+Rc), s	4.6	6.2	6.2
Max Green Setting (Gmax), s	41.4	67.8	67.8
Max Q Clear Time (g_c+I1), s	13.1	24.1	69.8
Green Ext Time (p_c), s	0.6	32.7	0.0

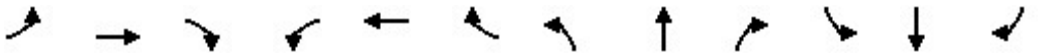
Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	145	1829	37	2050	39	188	42	50	58	71
Future Volume (vph)	145	1829	37	2050	39	188	42	50	58	71
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	13.0	50.6	9.9	47.5	47.5	11.0	49.8	49.8	9.7	48.5
Total Split (%)	10.8%	42.2%	8.3%	39.6%	39.6%	9.2%	41.5%	41.5%	8.1%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.5	49.3	5.3	43.0	43.0	6.5	16.7	16.7	8.7	16.6
Actuated g/C Ratio	0.09	0.52	0.06	0.46	0.46	0.07	0.18	0.18	0.09	0.18
v/c Ratio	0.97	0.79	0.39	0.94	0.05	1.65	0.14	0.14	0.38	0.58
Control Delay	108.9	23.8	58.5	35.1	0.1	357.0	31.3	0.8	54.3	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.9	23.8	58.5	35.1	0.1	357.0	31.3	0.8	54.3	26.5
LOS	F	C	E	D	A	F	C	A	D	C
Approach Delay		29.6		34.9			244.4			32.9
Approach LOS		C		C			F			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.65	
Intersection Signal Delay: 44.8	Intersection LOS: D
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	1829	127	37	2050	39	188	42	50	58	71	125
Future Volume (veh/h)	145	1829	127	37	2050	39	188	42	50	58	71	125
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	154	1946	129	39	2181	36	200	45	48	62	76	63
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	2611	172	62	2416	750	129	265	224	79	107	89
Arrive On Green	0.10	0.53	0.53	0.03	0.47	0.47	0.07	0.14	0.14	0.04	0.11	0.11
Sat Flow, veh/h	1781	4893	323	1781	5106	1585	1781	1870	1585	1781	946	784
Grp Volume(v), veh/h	154	1352	723	39	2181	36	200	45	48	62	0	139
Grp Sat Flow(s),veh/h/ln	1781	1702	1812	1781	1702	1585	1781	1870	1585	1781	0	1729
Q Serve(g_s), s	7.5	27.0	27.3	1.9	34.6	1.1	6.4	1.9	2.4	3.0	0.0	6.8
Cycle Q Clear(g_c), s	7.5	27.0	27.3	1.9	34.6	1.1	6.4	1.9	2.4	3.0	0.0	6.8
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	170	1817	967	62	2416	750	129	265	224	79	0	196
V/C Ratio(X)	0.91	0.74	0.75	0.63	0.90	0.05	1.54	0.17	0.21	0.78	0.00	0.71
Avail Cap(c_a), veh/h	170	1817	967	107	2458	763	129	926	785	103	0	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.4	15.9	15.9	41.9	21.3	12.5	40.8	33.3	33.5	41.6	0.0	37.6
Incr Delay (d2), s/veh	42.3	1.7	3.3	3.8	5.1	0.0	279.8	0.3	0.5	18.1	0.0	4.7
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	5.1	9.0	10.0	0.9	12.7	0.3	12.8	0.8	0.9	1.7	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.8	17.6	19.2	45.8	26.4	12.5	320.6	33.6	33.9	59.7	0.0	42.3
LnGrp LOS	F	B	B	D	C	B	F	C	C	E	A	D
Approach Vol, veh/h		2229			2256			293			201	
Approach Delay, s/veh		22.5			26.5			229.6			47.7	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	18.7	7.7	53.2	11.0	16.2	13.0	47.9
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.1	43.6	5.3	44.4	6.4	* 43	8.4	* 42
Max Q Clear Time (g_c+I1), s	5.0	4.4	3.9	29.3	8.4	8.8	9.5	36.6
Green Ext Time (p_c), s	0.0	0.4	0.0	11.0	0.0	0.8	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

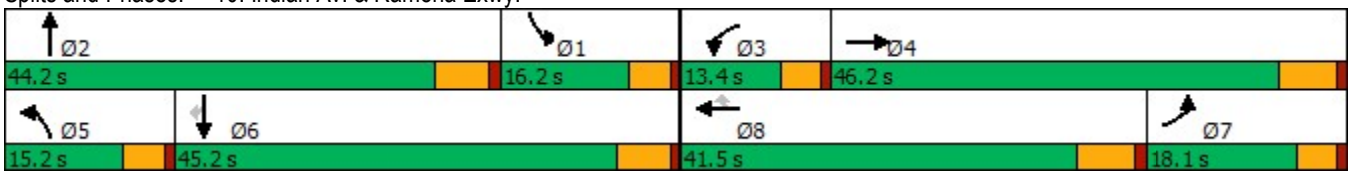
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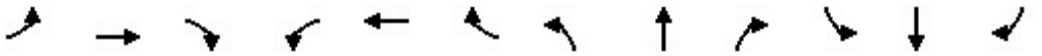
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	417	1804	68	1667	216	106	235	210	187	219
Future Volume (vph)	417	1804	68	1667	216	106	235	210	187	219
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	18.1	46.2	13.4	41.5	41.5	15.2	44.2	16.2	45.2	45.2
Total Split (%)	15.1%	38.5%	11.2%	34.6%	34.6%	12.7%	36.8%	13.5%	37.7%	37.7%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.6	43.8	7.6	35.6	35.6	9.6	17.1	11.7	19.2	19.2
Actuated g/C Ratio	0.14	0.44	0.08	0.36	0.36	0.10	0.17	0.12	0.19	0.19
v/c Ratio	1.81	0.87	0.53	0.96	0.33	0.66	0.58	1.06	0.29	0.47
Control Delay	409.9	32.6	61.3	46.5	8.8	64.0	32.2	123.9	34.7	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	409.9	32.6	61.3	46.5	8.8	64.0	32.2	123.9	34.7	7.5
LOS	F	C	E	D	A	E	C	F	C	A
Approach Delay		102.2		42.9			39.5		55.4	
Approach LOS		F		D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.4	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 69.4	Intersection LOS: E
Intersection Capacity Utilization 95.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	417	1804	38	68	1667	216	106	235	122	210	187	219
Future Volume (veh/h)	417	1804	38	68	1667	216	106	235	122	210	187	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	439	1899	34	72	1755	203	112	247	84	221	197	174
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	2405	43	93	1850	574	140	347	115	213	659	294
Arrive On Green	0.14	0.47	0.47	0.05	0.36	0.36	0.08	0.13	0.13	0.12	0.19	0.19
Sat Flow, veh/h	1781	5164	92	1781	5106	1585	1781	2621	869	1781	3554	1585
Grp Volume(v), veh/h	439	1251	682	72	1755	203	112	165	166	221	197	174
Grp Sat Flow(s),veh/h/ln	1781	1702	1852	1781	1702	1585	1781	1777	1714	1781	1777	1585
Q Serve(g_s), s	13.5	30.2	30.2	3.9	32.4	9.1	6.0	8.7	9.0	11.6	4.6	6.6
Cycle Q Clear(g_c), s	13.5	30.2	30.2	3.9	32.4	9.1	6.0	8.7	9.0	11.6	4.6	6.6
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	248	1585	863	93	1850	574	140	235	227	213	659	294
V/C Ratio(X)	1.77	0.79	0.79	0.78	0.95	0.35	0.80	0.70	0.73	1.04	0.30	0.59
Avail Cap(c_a), veh/h	248	1585	863	161	1855	576	194	702	677	213	1441	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	21.9	21.9	45.5	30.1	22.7	44.0	40.3	40.5	42.8	34.1	16.6
Incr Delay (d2), s/veh	364.1	2.8	5.0	5.2	11.1	0.4	10.1	3.8	4.5	72.3	0.3	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	30.6	11.1	12.7	1.8	13.9	3.2	3.0	3.9	4.0	9.2	2.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	405.9	24.7	26.9	50.7	41.2	23.0	54.1	44.1	45.0	115.1	34.4	18.5
LnGrp LOS	F	C	C	D	D	C	D	D	D	F	C	B
Approach Vol, veh/h		2372			2030			443			592	
Approach Delay, s/veh		95.9			39.7			47.0			59.9	
Approach LOS		F			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	18.7	9.7	51.5	12.2	23.8	19.7	41.4
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	11.6	* 38	8.8	40.0	10.6	39.4	13.5	* 35
Max Q Clear Time (g_c+I1), s	13.6	11.0	5.9	32.2	8.0	8.6	15.5	34.4
Green Ext Time (p_c), s	0.0	1.8	0.0	6.0	0.0	1.8	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	67.0
HCM 6th LOS	E

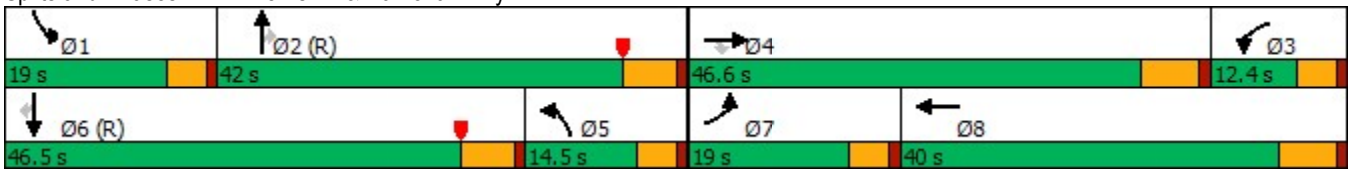
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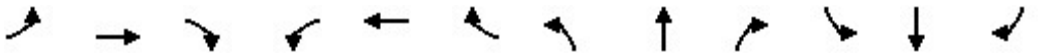
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	479	1436	221	185	1317	271	585	140	464	739	369
Future Volume (vph)	479	1436	221	185	1317	271	585	140	464	739	369
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	19.0	46.6	46.6	12.4	40.0	14.5	42.0	42.0	19.0	46.5	46.5
Total Split (%)	15.8%	38.8%	38.8%	10.3%	33.3%	12.1%	35.0%	35.0%	15.8%	38.8%	38.8%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.4	40.2	40.2	8.0	33.8	9.9	36.2	36.2	14.4	40.7	40.7
Actuated g/C Ratio	0.12	0.34	0.34	0.07	0.28	0.08	0.30	0.30	0.12	0.34	0.34
v/c Ratio	1.24	0.90	0.35	0.86	1.18	1.02	0.58	0.25	1.20	0.66	0.53
Control Delay	171.2	46.1	7.4	88.5	127.9	112.4	38.2	4.3	157.0	36.8	10.5
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	171.2	46.1	7.4	88.5	127.9	112.4	38.2	4.3	157.0	36.8	10.5
LOS	F	D	A	F	F	F	D	A	F	D	B
Approach Delay		70.1			123.8		53.6			66.1	
Approach LOS		E			F		D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 81.2	Intersection LOS: F
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	479	1436	221	185	1317	260	271	585	140	464	739	369
Future Volume (veh/h)	479	1436	221	185	1317	260	271	585	140	464	739	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	510	1528	158	197	1401	259	288	622	94	494	786	269
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	1680	521	225	1241	229	1534	2392	1067	415	1205	538
Arrive On Green	0.12	0.33	0.33	0.07	0.29	0.29	0.44	0.67	0.67	0.12	0.34	0.34
Sat Flow, veh/h	3456	5106	1585	3456	4321	798	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	510	1528	158	197	1103	557	288	622	94	494	786	269
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1715	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	14.4	34.4	8.9	6.8	34.5	34.5	6.1	8.3	4.1	14.4	22.5	20.4
Cycle Q Clear(g_c), s	14.4	34.4	8.9	6.8	34.5	34.5	6.1	8.3	4.1	14.4	22.5	20.4
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	1680	521	225	978	493	1534	2392	1067	415	1205	538
V/C Ratio(X)	1.23	0.91	0.30	0.88	1.13	1.13	0.19	0.26	0.09	1.19	0.65	0.50
Avail Cap(c_a), veh/h	415	1719	534	225	978	493	1534	2392	1067	415	1205	538
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)	0.34	0.34	0.34	0.18	0.18	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	38.6	30.0	55.6	42.8	42.8	20.2	7.8	18.5	52.8	33.6	49.9
Incr Delay (d2), s/veh	110.8	2.8	0.1	7.1	60.5	63.8	0.0	0.3	0.2	107.7	2.8	3.3
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	12.4	14.0	3.3	3.1	21.9	22.5	2.4	2.9	0.8	12.3	9.8	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	163.6	41.4	30.1	62.7	103.3	106.5	20.3	8.0	18.7	160.5	36.4	53.2
LnGrp LOS	F	D	C	E	F	F	C	A	B	F	D	D
Approach Vol, veh/h		2196			1857			1004			1549	
Approach Delay, s/veh		69.0			99.9			12.5			78.9	
Approach LOS		E			F			B			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	87.2	14.0	45.7	59.7	46.5	19.0	40.7
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	14.4	36.2	7.8	* 40	9.9	* 41	14.4	33.8
Max Q Clear Time (g_c+I1), s	16.4	10.3	8.8	36.4	8.1	24.5	16.4	36.5
Green Ext Time (p_c), s	0.0	4.3	0.0	3.1	0.1	5.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	71.4
HCM 6th LOS	E

Notes

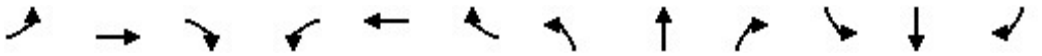
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	165	2084	96	186	1692	267	99	144	398	164	95
Future Volume (vph)	165	2084	96	186	1692	267	99	144	398	164	95
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	9.6	39.8	39.8	11.9	42.1	42.1	10.9	43.6	24.7	57.4	57.4
Total Split (%)	8.0%	33.2%	33.2%	9.9%	35.1%	35.1%	9.1%	36.3%	20.6%	47.8%	47.8%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.0	33.8	33.8	7.3	36.1	36.1	6.3	22.4	20.2	36.2	36.2
Actuated g/C Ratio	0.05	0.32	0.32	0.07	0.34	0.34	0.06	0.21	0.19	0.35	0.35
v/c Ratio	2.02	1.32	0.17	1.56	1.00	0.41	0.96	0.76	1.21	0.27	0.16
Control Delay	528.5	180.3	1.6	325.5	57.9	10.1	129.9	44.9	158.4	25.0	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
Total Delay	528.5	180.3	1.6	325.5	57.9	10.1	129.9	44.9	158.4	25.0	3.6
LOS	F	F	A	F	E	B	F	D	F	C	A
Approach Delay		197.5			75.2			66.2		102.7	
Approach LOS		F			E			E		F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.7	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.02	
Intersection Signal Delay: 129.6	Intersection LOS: F
Intersection Capacity Utilization 106.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	2084	96	186	1692	267	99	144	151	398	164	95
Future Volume (veh/h)	165	2084	96	186	1692	267	99	144	151	398	164	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	2171	65	194	1762	226	103	150	115	415	171	90
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	1700	517	129	1816	552	111	178	137	355	610	517
Arrive On Green	0.05	0.33	0.33	0.07	0.36	0.36	0.06	0.18	0.18	0.20	0.33	0.33
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	982	753	1781	1870	1585
Grp Volume(v), veh/h	172	2171	65	194	1762	226	103	0	265	415	171	90
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1735	1781	1870	1585
Q Serve(g_s), s	5.0	33.6	2.9	7.3	34.3	5.7	5.8	0.0	14.9	20.1	6.8	4.1
Cycle Q Clear(g_c), s	5.0	33.6	2.9	7.3	34.3	5.7	5.8	0.0	14.9	20.1	6.8	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	88	1700	517	129	1816	552	111	0	315	355	610	517
V/C Ratio(X)	1.95	1.28	0.13	1.51	0.97	0.41	0.93	0.00	0.84	1.17	0.28	0.17
Avail Cap(c_a), veh/h	88	1700	517	129	1816	552	111	0	657	355	964	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	33.7	23.4	46.8	32.0	6.4	47.1	0.0	39.9	40.4	25.2	24.3
Incr Delay (d2), s/veh	465.4	129.4	0.1	263.4	14.7	0.5	61.6	0.0	6.0	102.4	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	13.5	33.0	1.0	12.5	15.3	3.5	4.4	0.0	6.7	18.6	3.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	513.4	163.0	23.5	310.3	46.6	6.9	108.6	0.0	45.9	142.9	25.5	24.4
LnGrp LOS	F	F	C	F	D	A	F	A	D	F	C	C
Approach Vol, veh/h		2408			2182			368			676	
Approach Delay, s/veh		184.3			66.0			63.5			97.4	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.5	23.7	11.9	39.8	10.9	38.3	9.6	42.1
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	20.1	* 38	7.3	33.6	6.3	52.0	5.0	35.9
Max Q Clear Time (g_c+I1), s	22.1	16.9	9.3	35.6	7.8	8.8	7.0	36.3
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	120.1
HCM 6th LOS	F

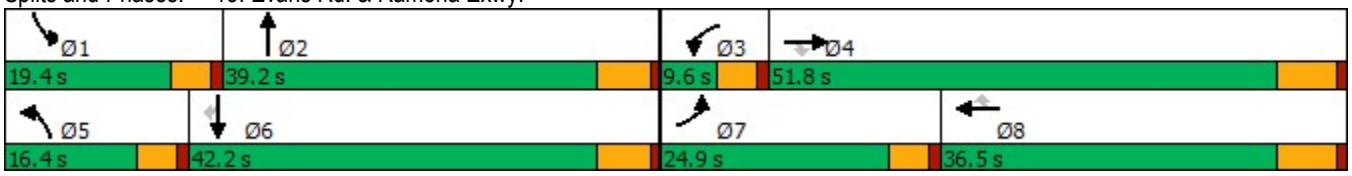
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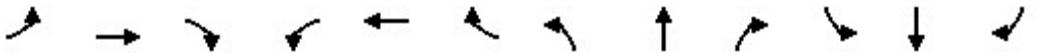
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	443	1689	400	20	1418	304	233	313	329	614	493
Future Volume (vph)	443	1689	400	20	1418	304	233	313	329	614	493
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	24.9	51.8	51.8	9.6	36.5	36.5	16.4	39.2	19.4	42.2	42.2
Total Split (%)	20.8%	43.2%	43.2%	8.0%	30.4%	30.4%	13.7%	32.7%	16.2%	35.2%	35.2%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	18.0	51.4	51.4	5.7	32.8	32.8	11.3	26.5	14.1	29.3	29.3
Actuated g/C Ratio	0.17	0.48	0.48	0.05	0.30	0.30	0.11	0.25	0.13	0.27	0.27
v/c Ratio	0.79	0.71	0.43	0.22	1.34	0.53	0.66	0.38	0.75	0.65	0.77
Control Delay	54.4	26.3	4.9	58.9	191.6	20.7	57.5	34.9	57.5	38.2	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	26.3	4.9	58.9	191.6	20.7	57.5	34.9	57.5	38.2	22.1
LOS	D	C	A	E	F	C	E	C	E	D	C
Approach Delay		27.8			160.3			44.3		37.1	
Approach LOS		C			F			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 107.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 68.2	Intersection LOS: E
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	1689	400	20	1418	304	233	313	13	329	614	493
Future Volume (veh/h)	443	1689	400	20	1418	304	233	313	13	329	614	493
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	452	1723	0	20	1447	232	238	319	10	336	627	407
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	535	2185		47	1064	474	318	978	31	416	1089	486
Arrive On Green	0.15	0.43	0.00	0.03	0.30	0.30	0.09	0.28	0.28	0.12	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3517	110	3456	3554	1585
Grp Volume(v), veh/h	452	1723	0	20	1447	232	238	161	168	336	627	407
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1851	1728	1777	1585
Q Serve(g_s), s	13.8	31.6	0.0	1.2	32.5	13.0	7.3	7.8	7.8	10.3	16.1	26.0
Cycle Q Clear(g_c), s	13.8	31.6	0.0	1.2	32.5	13.0	7.3	7.8	7.8	10.3	16.1	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	535	2185		47	1064	474	318	494	515	416	1089	486
V/C Ratio(X)	0.84	0.79		0.43	1.36	0.49	0.75	0.33	0.33	0.81	0.58	0.84
Avail Cap(c_a), veh/h	665	2248		92	1064	474	395	576	600	490	1250	558
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	26.8	0.0	52.0	38.0	31.2	48.1	31.1	31.1	46.5	31.7	35.1
Incr Delay (d2), s/veh	6.8	1.9	0.0	2.3	168.2	0.8	4.4	0.4	0.4	7.1	0.5	9.8
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	6.1	11.9	0.0	0.5	37.8	4.7	3.2	3.3	3.4	4.7	6.7	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	28.7	0.0	54.3	206.3	32.0	52.4	31.5	31.5	53.6	32.2	44.9
LnGrp LOS	D	C		D	F	C	D	C	C	D	C	D
Approach Vol, veh/h		2175	A		1699			567			1370	
Approach Delay, s/veh		33.5			180.7			40.3			41.2	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	34.2	6.9	50.4	14.0	37.3	20.8	36.5
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	14.8	33.4	5.0	45.3	11.8	36.4	20.3	30.0
Max Q Clear Time (g_c+I1), s	12.3	9.8	3.2	33.6	9.3	28.0	15.8	34.5
Green Ext Time (p_c), s	0.2	1.6	0.0	7.8	0.1	3.4	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	79.0
HCM 6th LOS	E

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.2: EAPC (2026) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

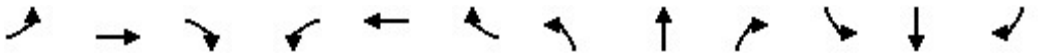
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Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	746	563	1236	1174	2	317
Future Volume (vph)	746	563	1236	1174	2	317
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	42.0	37.0	79.0	31.0	31.0	31.0
Total Split (%)	38.2%	33.6%	71.8%	28.2%	28.2%	28.2%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	36.0	32.5	73.0	25.5	25.5	25.5
Actuated g/C Ratio	0.33	0.30	0.66	0.23	0.23	0.23
v/c Ratio	1.10	1.14	0.55	1.59	1.59	0.78
Control Delay	89.1	90.9	3.6	307.6	308.0	43.9
Queue Delay	0.7	0.2	0.9	29.3	28.9	0.0
Total Delay	89.8	91.1	4.5	336.8	336.9	43.9
LOS	F	F	A	F	F	D
Approach Delay	89.8		31.6		274.6	
Approach LOS	F		C		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.59	
Intersection Signal Delay: 127.5	Intersection LOS: F
Intersection Capacity Utilization 191.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	746	502	563	1236	0	0	0	0	1174	2	317
Future Volume (veh/h)	0	746	502	563	1236	0	0	0	0	1174	2	317
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	785	379	593	1301	0				1237	0	288
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	761	366	526	2358	0				826	0	367
Arrive On Green	0.00	0.33	0.33	0.30	0.66	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	2420	1120	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	599	565	593	1301	0				1237	0	288
Grp Sat Flow(s),veh/h/ln	0	1777	1669	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	36.0	36.0	32.5	21.4	0.0				25.5	0.0	18.8
Cycle Q Clear(g_c), s	0.0	36.0	36.0	32.5	21.4	0.0				25.5	0.0	18.8
Prop In Lane	0.00		0.67	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	582	546	526	2358	0				826	0	367
V/C Ratio(X)	0.00	1.03	1.03	1.13	0.55	0.00				1.50	0.00	0.78
Avail Cap(c_a), veh/h	0	582	546	526	2358	0				826	0	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.13	0.13	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.0	37.0	38.7	9.8	0.0				42.3	0.0	39.7
Incr Delay (d2), s/veh	0.0	45.3	47.7	60.7	0.1	0.0				230.4	0.0	10.6
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	0.0	21.8	20.8	22.1	6.7	0.0				37.1	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	82.3	84.7	99.5	9.9	0.0				272.6	0.0	50.2
LnGrp LOS	A	F	F	F	A	A				F	A	D
Approach Vol, veh/h		1164			1894						1525	
Approach Delay, s/veh		83.4			38.0						230.6	
Approach LOS		F			D						F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	37.0	42.0		31.0		79.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	32.5	36.0		25.5		73.0						
Max Q Clear Time (g_c+I1), s	34.5	38.0		27.5		23.4						
Green Ext Time (p_c), s	0.0	0.0		0.0		6.6						

Intersection Summary		
HCM 6th Ctrl Delay		113.6
HCM 6th LOS		F

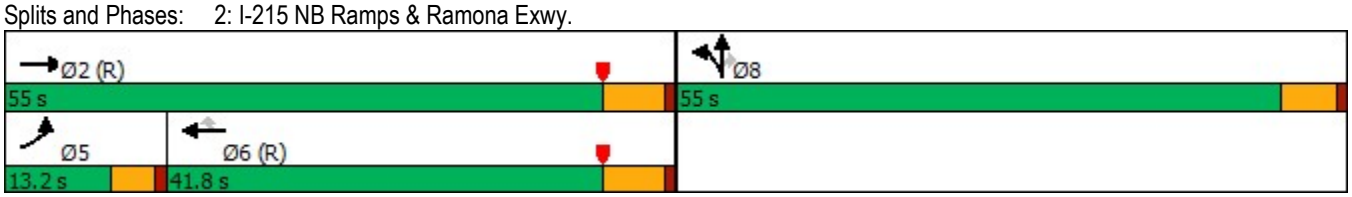
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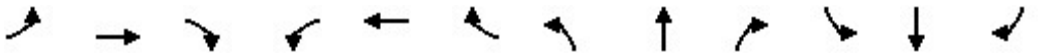
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	151	1770	1248	940	551	3	881
Future Volume (vph)	151	1770	1248	940	551	3	881
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.2	55.0	41.8	41.8	55.0	55.0	55.0
Total Split (%)	12.0%	50.0%	38.0%	38.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	8.7	49.0	35.8	35.8	49.5	49.5	49.5
Actuated g/C Ratio	0.08	0.45	0.33	0.33	0.45	0.45	0.45
v/c Ratio	1.12	1.16	1.12	1.14	0.38	0.38	1.21
Control Delay	106.9	107.2	100.7	94.5	21.9	21.9	132.3
Queue Delay	0.0	2.6	0.4	0.0	0.0	0.0	0.0
Total Delay	106.9	109.8	101.0	94.5	21.9	21.9	132.3
LOS	F	F	F	F	C	C	F
Approach Delay		109.6	98.2			89.7	
Approach LOS		F	F			F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 100.0	Intersection LOS: F
Intersection Capacity Utilization 191.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1770	0	0	1248	940	551	3	881	0	0	0
Future Volume (veh/h)	151	1770	0	0	1248	940	551	3	881	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	156	1825	0	0	1287	849	570	0	702			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	141	1583	0	0	1157	516	1603	0	713			
Arrive On Green	0.16	0.89	0.00	0.00	0.33	0.33	0.45	0.00	0.45			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	156	1825	0	0	1287	849	570	0	702			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	8.7	49.0	0.0	0.0	35.8	35.8	11.5	0.0	48.1			
Cycle Q Clear(g_c), s	8.7	49.0	0.0	0.0	35.8	35.8	11.5	0.0	48.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	141	1583	0	0	1157	516	1603	0	713			
V/C Ratio(X)	1.11	1.15	0.00	0.00	1.11	1.65	0.36	0.00	0.98			
Avail Cap(c_a), veh/h	141	1583	0	0	1157	516	1603	0	713			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	0.09	0.09	1.00	0.00	1.00			
Uniform Delay (d), s/veh	46.3	6.0	0.0	0.0	37.1	37.1	19.8	0.0	29.9			
Incr Delay (d2), s/veh	58.1	69.6	0.0	0.0	52.1	291.4	0.1	0.0	29.6			
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	5.7	17.5	0.0	0.0	22.8	54.6	4.5	0.0	22.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.4	75.6	0.0	0.0	89.2	328.5	19.9	0.0	59.5			
LnGrp LOS	F	F	A	A	F	F	B	A	E			
Approach Vol, veh/h		1981			2136			1272				
Approach Delay, s/veh		77.8			184.3			41.8				
Approach LOS		E			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.0			13.2	41.8		55.0				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		49.0			8.7	35.8		49.5				
Max Q Clear Time (g_c+I1), s		51.0			10.7	37.8		50.1				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	111.5
HCM 6th LOS	F

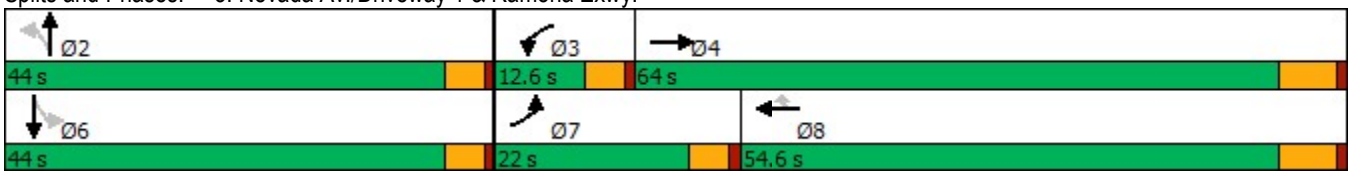
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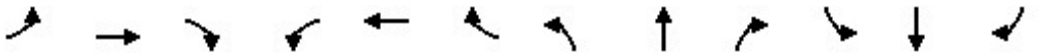
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	294	2415	31	1685	181	27	19	212	18
Future Volume (vph)	294	2415	31	1685	181	27	19	212	18
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4	3	8			2		6
Permitted Phases					8	2		6	
Detector Phase	7	4	3	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	9.6	24.2	24.2	45.6	45.6	45.6	45.6
Total Split (s)	22.0	64.0	12.6	54.6	54.6	44.0	44.0	44.0	44.0
Total Split (%)	18.2%	53.1%	10.4%	45.3%	45.3%	36.5%	36.5%	36.5%	36.5%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	17.5	64.1	6.3	48.7	48.7		24.0	24.0	24.0
Actuated g/C Ratio	0.17	0.61	0.06	0.46	0.46		0.23	0.23	0.23
v/c Ratio	1.02	1.21	0.30	1.00	0.23		0.31	0.77	0.51
Control Delay	104.3	122.1	57.9	52.0	8.6		19.7	55.6	10.3
Queue Delay	0.0	0.2	0.0	31.1	0.0		0.0	0.0	0.0
Total Delay	104.3	122.3	57.9	83.2	8.6		19.7	55.6	10.3
LOS	F	F	E	F	A		B	E	B
Approach Delay		120.5		75.6			19.7		30.3
Approach LOS		F		E			B		C

Intersection Summary	
Cycle Length: 120.6	
Actuated Cycle Length: 105.7	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 95.0	Intersection LOS: F
Intersection Capacity Utilization 119.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Nevada Av./Driveway 1 & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	2415	237	31	1685	181	27	19	53	212	18	250
Future Volume (veh/h)	294	2415	237	31	1685	181	27	19	53	212	18	250
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	300	2464	125	32	1719	93	28	19	28	216	18	127
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	2182	110	52	1776	752	120	84	92	324	40	283
Arrive On Green	0.26	0.93	0.93	0.04	0.71	0.71	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3531	178	1781	3741	1585	354	422	462	1359	201	1415
Grp Volume(v), veh/h	300	1295	1295	32	1719	93	75	0	0	216	0	145
Grp Sat Flow(s),veh/h/ln	1781	1870	1838	1781	1870	1585	1238	0	0	1359	0	1616
Q Serve(g_s), s	16.8	62.3	62.3	1.8	42.9	1.9	0.3	0.0	0.0	8.9	0.0	7.3
Cycle Q Clear(g_c), s	16.8	62.3	62.3	1.8	42.9	1.9	7.6	0.0	0.0	16.6	0.0	7.3
Prop In Lane	1.00		0.10	1.00		1.00	0.37		0.37	1.00		0.88
Lane Grp Cap(c), veh/h	308	1156	1136	52	1776	752	296	0	0	324	0	323
V/C Ratio(X)	0.98	1.12	1.14	0.61	0.97	0.12	0.25	0.00	0.00	0.67	0.00	0.45
Avail Cap(c_a), veh/h	308	1156	1136	141	1797	761	581	0	0	584	0	632
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	3.7	3.7	47.6	13.8	7.9	29.5	0.0	0.0	34.4	0.0	30.8
Incr Delay (d2), s/veh	44.2	65.9	73.7	4.2	14.3	0.1	0.4	0.0	0.0	2.4	0.0	1.0
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	9.9	22.9	25.0	0.8	10.4	0.6	1.3	0.0	0.0	4.8	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.3	69.6	77.4	51.8	28.1	8.0	29.9	0.0	0.0	36.8	0.0	31.8
LnGrp LOS	F	F	F	D	C	A	C	A	A	D	A	C
Approach Vol, veh/h		2889			1844			75			361	
Approach Delay, s/veh		74.3			27.5			29.9			34.8	
Approach LOS		E			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.7	7.6	68.5		24.7	22.0	54.0				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		39.4	8.0	57.8		39.4	17.4	48.4				
Max Q Clear Time (g_c+I1), s		9.6	3.8	64.3		18.6	18.8	44.9				
Green Ext Time (p_c), s		0.4	0.0	0.0		1.5	0.0	2.9				

Intersection Summary												
HCM 6th Ctrl Delay			54.2									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2468	1716	56	0	53
Future Vol, veh/h	0	2468	1716	56	0	53
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, %	2	2	2	2	2	2
Mvmt Flow	0	2683	1865	61	0	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	963
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	220
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	220
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

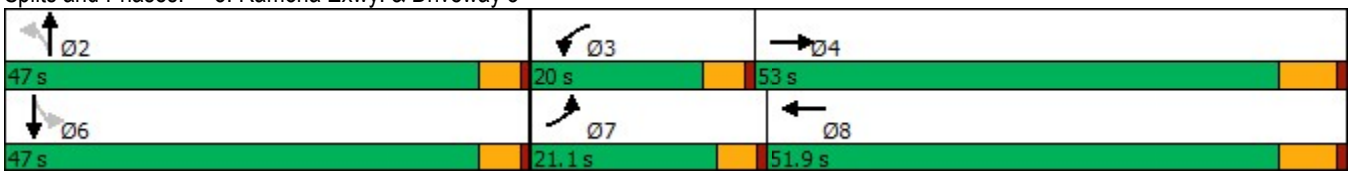
Approach	EB	WB	SB
HCM Control Delay, s	0	0	27.1
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	220
HCM Lane V/C Ratio	-	-	-	0.262
HCM Control Delay (s)	-	-	-	27.1
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	128	2295	242	1484	313	0	122	0
Future Volume (vph)	128	2295	242	1484	313	0	122	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	9.6	24.2	45.6	45.6	45.6	45.6
Total Split (s)	21.1	53.0	20.0	51.9	47.0	47.0	47.0	47.0
Total Split (%)	17.6%	44.2%	16.7%	43.3%	39.2%	39.2%	39.2%	39.2%
Yellow Time (s)	3.6	5.2	3.6	5.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	12.5	47.1	15.5	50.0	33.0	33.0	33.0	33.0
Actuated g/C Ratio	0.11	0.42	0.14	0.45	0.30	0.30	0.30	0.30
v/c Ratio	0.70	1.14	1.07	0.67	0.85	0.45	0.62	0.08
Control Delay	66.8	100.5	123.2	27.4	56.8	6.8	46.8	0.2
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	100.7	123.2	27.4	56.8	6.8	46.8	0.2
LOS	E	F	F	C	E	A	D	A
Approach Delay		99.0		40.5		33.4		33.2
Approach LOS		F		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 111	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 69.0	Intersection LOS: E
Intersection Capacity Utilization 103.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 5: Ramona Exwy. & Driveway 3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	2295	173	242	1484	52	313	0	275	122	0	51
Future Volume (veh/h)	128	2295	173	242	1484	52	313	0	275	122	0	51
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	2495	123	263	1613	35	340	0	158	133	0	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	2298	112	254	2636	57	437	0	447	330	0	447
Arrive On Green	0.14	0.65	0.65	0.21	0.72	0.72	0.42	0.00	0.42	0.42	0.00	0.42
Sat Flow, veh/h	1781	5306	259	1781	5471	119	1376	0	1585	1228	0	1585
Grp Volume(v), veh/h	139	1751	867	263	1103	545	340	0	158	133	0	33
Grp Sat Flow(s),veh/h/ln	1781	1870	1824	1781	1870	1849	1376	0	1585	1228	0	1585
Q Serve(g_s), s	8.2	46.8	46.8	15.4	15.8	15.8	25.3	0.0	7.3	9.5	0.0	1.3
Cycle Q Clear(g_c), s	8.2	46.8	46.8	15.4	15.8	15.8	26.6	0.0	7.3	16.8	0.0	1.3
Prop In Lane	1.00		0.14	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	1620	790	254	1803	891	437	0	447	330	0	447
V/C Ratio(X)	0.83	1.08	1.10	1.04	0.61	0.61	0.78	0.00	0.35	0.40	0.00	0.07
Avail Cap(c_a), veh/h	272	1620	790	254	1803	891	589	0	622	466	0	622
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.00	1.50	1.50	1.00	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.6	18.9	18.9	42.5	10.0	10.0	30.7	0.0	24.5	30.2	0.0	22.8
Incr Delay (d2), s/veh	5.1	47.6	62.2	66.2	0.6	1.2	4.6	0.0	0.5	0.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	21.9	24.6	10.5	4.3	4.4	8.1	0.0	2.7	2.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	66.6	81.1	108.6	10.6	11.2	35.3	0.0	25.0	31.0	0.0	22.9
LnGrp LOS	D	F	F	F	B	B	D	A	C	C	A	C
Approach Vol, veh/h		2757			1911			498			166	
Approach Delay, s/veh		70.3			24.2			32.0			29.4	
Approach LOS		E			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.1	20.0	53.0		35.1	14.7	58.3				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		42.4	15.4	46.8		42.4	16.5	45.7				
Max Q Clear Time (g_c+I1), s		28.6	17.4	48.8		18.8	10.2	17.8				
Green Ext Time (p_c), s		1.8	0.0	0.0		0.6	0.1	12.4				

Intersection Summary												
HCM 6th Ctrl Delay			49.0									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2344	1645	132	0	125
Future Vol, veh/h	0	2344	1645	132	0	125
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	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2392	1679	135	0	128

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	907
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	248
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	248
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	33.9
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	248
HCM Lane V/C Ratio	-	-	-	0.514
HCM Control Delay (s)	-	-	-	33.9
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	2.7

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	11	27	355	184	11
Future Vol, veh/h	26	11	27	355	184	11
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	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	12	29	386	200	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	650	206	212	0	-	0
Stage 1	206	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	434	835	1358	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	425	835	1358	-	-	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	646	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1358	-	582	-	-
HCM Lane V/C Ratio	0.022	-	0.069	-	-
HCM Control Delay (s)	7.7	-	11.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	0	355	184	17
Future Vol, veh/h	0	20	0	355	184	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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	0	386	200	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	209	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.23	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	831	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	831	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

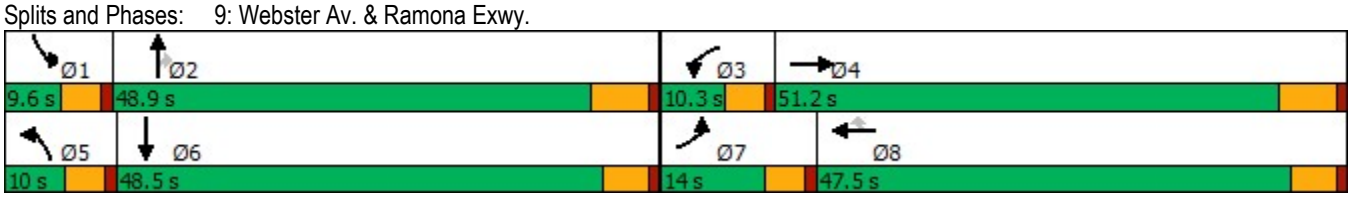
Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

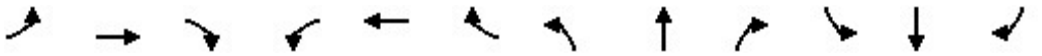
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	831	-	-
HCM Lane V/C Ratio	-	0.026	-	-
HCM Control Delay (s)	-	9.4	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	237	1963	68	1910	40	117	83	39	50	39
Future Volume (vph)	237	1963	68	1910	40	117	83	39	50	39
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	14.0	51.2	10.3	47.5	47.5	10.0	48.9	48.9	9.6	48.5
Total Split (%)	11.7%	42.7%	8.6%	39.6%	39.6%	8.3%	40.8%	40.8%	8.0%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.5	45.7	5.8	43.0	43.0	5.5	17.1	17.1	5.1	15.7
Actuated g/C Ratio	0.10	0.49	0.06	0.46	0.46	0.06	0.18	0.18	0.05	0.17
v/c Ratio	1.34	0.87	0.63	0.83	0.05	1.16	0.25	0.10	0.53	0.40
Control Delay	221.7	27.6	71.5	27.6	0.1	177.8	34.4	0.6	66.8	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	221.7	27.6	71.5	27.6	0.1	177.8	34.4	0.6	66.8	13.8
LOS	F	C	E	C	A	F	C	A	E	B
Approach Delay		47.3		28.5			98.8			27.4
Approach LOS		D		C			F			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.5	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 81.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	1963	144	68	1910	40	117	83	39	50	39	106
Future Volume (veh/h)	237	1963	144	68	1910	40	117	83	39	50	39	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	2003	131	69	1949	36	119	85	34	51	40	63
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	2545	166	89	2348	729	112	258	219	73	75	119
Arrive On Green	0.11	0.52	0.52	0.05	0.46	0.46	0.06	0.14	0.14	0.04	0.12	0.12
Sat Flow, veh/h	1781	4898	319	1781	5106	1585	1781	1870	1585	1781	648	1021
Grp Volume(v), veh/h	242	1389	745	69	1949	36	119	85	34	51	0	103
Grp Sat Flow(s),veh/h/ln	1781	1702	1813	1781	1702	1585	1781	1870	1585	1781	0	1670
Q Serve(g_s), s	9.4	28.4	28.8	3.3	28.6	1.1	5.4	3.5	1.6	2.4	0.0	5.0
Cycle Q Clear(g_c), s	9.4	28.4	28.8	3.3	28.6	1.1	5.4	3.5	1.6	2.4	0.0	5.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	195	1769	942	89	2348	729	112	258	219	73	0	194
V/C Ratio(X)	1.24	0.79	0.79	0.78	0.83	0.05	1.06	0.33	0.16	0.70	0.00	0.53
Avail Cap(c_a), veh/h	195	1784	950	118	2521	783	112	930	788	104	0	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.2	16.7	16.8	40.3	20.3	12.8	40.2	33.4	32.6	40.7	0.0	35.7
Incr Delay (d2), s/veh	144.3	2.4	4.6	14.6	2.3	0.0	102.8	0.7	0.3	4.4	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	9.6	10.9	1.7	10.1	0.3	5.5	1.6	0.6	1.1	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	182.6	19.1	21.4	55.0	22.6	12.8	143.1	34.2	32.9	45.1	0.0	38.0
LnGrp LOS	F	B	C	D	C	B	F	C	C	D	A	D
Approach Vol, veh/h		2376			2054			238			154	
Approach Delay, s/veh		36.5			23.5			88.4			40.3	
Approach LOS		D			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	18.1	8.9	50.8	10.0	16.2	14.0	45.7
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.0	42.7	5.7	45.0	5.4	* 43	9.4	* 42
Max Q Clear Time (g_c+I1), s	4.4	5.5	5.3	30.8	7.4	7.0	11.4	30.6
Green Ext Time (p_c), s	0.0	0.5	0.0	10.7	0.0	0.6	0.0	8.9

Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

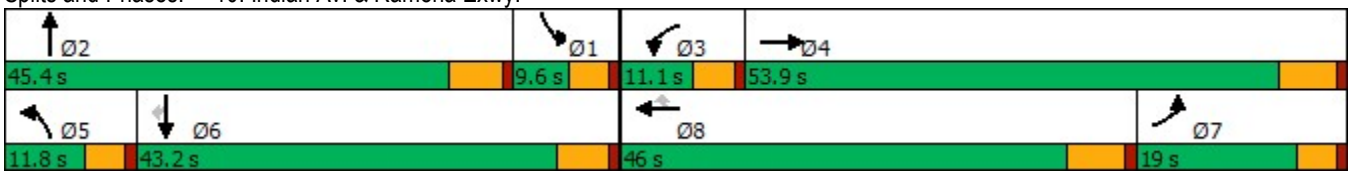
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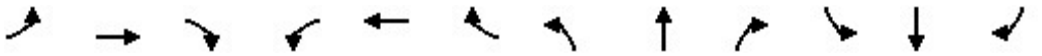
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	292	1757	55	1810	139	47	102	71	89	155
Future Volume (vph)	292	1757	55	1810	139	47	102	71	89	155
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	19.0	53.9	11.1	46.0	46.0	11.8	45.4	9.6	43.2	43.2
Total Split (%)	15.8%	44.9%	9.3%	38.3%	38.3%	9.8%	37.8%	8.0%	36.0%	36.0%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	14.5	50.6	6.2	40.2	40.2	6.5	14.7	6.1	16.4	16.4
Actuated g/C Ratio	0.15	0.52	0.06	0.41	0.41	0.07	0.15	0.06	0.17	0.17
v/c Ratio	1.15	0.72	0.50	0.89	0.19	0.42	0.30	0.67	0.16	0.40
Control Delay	140.0	21.9	62.2	34.2	2.8	57.0	22.8	74.9	35.3	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	140.0	21.9	62.2	34.2	2.8	57.0	22.8	74.9	35.3	7.6
LOS	F	C	E	C	A	E	C	E	D	A
Approach Delay		38.3		32.8			30.4		30.7	
Approach LOS		D		C			C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 35.0	Intersection LOS: D
Intersection Capacity Utilization 81.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	1757	58	55	1810	139	47	102	61	71	89	155
Future Volume (veh/h)	292	1757	58	55	1810	139	47	102	61	71	89	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	1830	53	57	1885	119	49	106	44	74	93	136
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	279	2817	82	74	2144	665	69	271	107	95	485	216
Arrive On Green	0.16	0.55	0.55	0.04	0.42	0.42	0.04	0.11	0.11	0.05	0.14	0.14
Sat Flow, veh/h	1781	5100	148	1781	5106	1585	1781	2488	983	1781	3554	1585
Grp Volume(v), veh/h	304	1221	662	57	1885	119	49	74	76	74	93	136
Grp Sat Flow(s),veh/h/ln	1781	1702	1844	1781	1702	1585	1781	1777	1693	1781	1777	1585
Q Serve(g_s), s	14.4	23.0	23.0	2.9	31.2	4.3	2.5	3.6	3.8	3.8	2.1	5.0
Cycle Q Clear(g_c), s	14.4	23.0	23.0	2.9	31.2	4.3	2.5	3.6	3.8	3.8	2.1	5.0
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	279	1880	1018	74	2144	665	69	193	184	95	485	216
V/C Ratio(X)	1.09	0.65	0.65	0.77	0.88	0.18	0.71	0.38	0.41	0.78	0.19	0.63
Avail Cap(c_a), veh/h	279	1880	1018	126	2212	687	140	766	730	97	1447	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	14.4	14.4	43.6	24.5	16.7	43.6	38.1	38.2	42.9	35.2	16.7
Incr Delay (d2), s/veh	79.6	0.8	1.5	6.0	4.4	0.1	4.9	1.2	1.5	29.2	0.2	3.0
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	12.0	7.5	8.3	1.3	11.8	1.4	1.2	1.6	1.6	2.4	0.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	118.3	15.2	15.8	49.6	28.9	16.8	48.5	39.3	39.6	72.2	35.4	19.7
LnGrp LOS	F	B	B	D	C	B	D	D	D	E	D	B
Approach Vol, veh/h		2187			2061			199			303	
Approach Delay, s/veh		29.7			28.7			41.7			37.3	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	15.8	8.4	56.9	8.2	18.3	20.6	44.8
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	5.0	* 40	6.5	47.7	7.2	37.4	14.4	* 40
Max Q Clear Time (g_c+I1), s	5.8	5.8	4.9	25.0	4.5	7.0	16.4	33.2
Green Ext Time (p_c), s	0.0	0.8	0.0	13.1	0.0	1.0	0.0	5.4

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

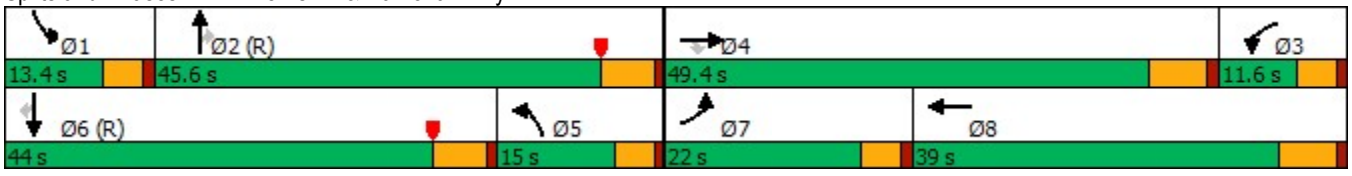
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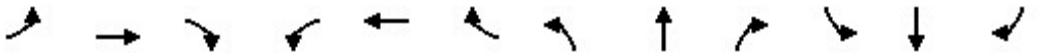
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	544	1168	178	155	1384	252	706	81	351	401	388
Future Volume (vph)	544	1168	178	155	1384	252	706	81	351	401	388
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	22.0	49.4	49.4	11.6	39.0	15.0	45.6	45.6	13.4	44.0	44.0
Total Split (%)	18.3%	41.2%	41.2%	9.7%	32.5%	12.5%	38.0%	38.0%	11.2%	36.7%	36.7%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.4	37.5	37.5	12.7	32.8	10.4	39.8	39.8	8.8	38.2	38.2
Actuated g/C Ratio	0.14	0.31	0.31	0.11	0.27	0.09	0.33	0.33	0.07	0.32	0.32
v/c Ratio	1.12	0.75	0.29	0.44	1.20	0.87	0.61	0.13	1.43	0.36	0.53
Control Delay	123.1	40.0	5.1	56.1	133.3	81.4	36.4	0.4	253.3	32.7	7.5
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	123.1	40.0	5.1	56.1	133.3	81.4	36.4	0.4	253.3	32.7	7.5
LOS	F	D	A	E	F	F	D	A	F	C	A
Approach Delay		60.6			126.5		44.5			92.0	
Approach LOS		E			F		D			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38.2 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.43	
Intersection Signal Delay: 83.9	Intersection LOS: F
Intersection Capacity Utilization 94.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	544	1168	178	155	1384	231	252	706	81	351	401	388
Future Volume (veh/h)	544	1168	178	155	1384	231	252	706	81	351	401	388
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	555	1192	138	158	1412	219	257	720	32	358	409	305
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	501	1488	462	392	1219	189	852	1783	795	253	1131	505
Arrive On Green	0.14	0.29	0.29	0.11	0.27	0.27	0.25	0.50	0.50	0.07	0.32	0.32
Sat Flow, veh/h	3456	5106	1585	3456	4459	691	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	555	1192	138	158	1078	553	257	720	32	358	409	305
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1746	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	17.4	25.9	8.1	5.1	32.8	32.8	7.3	15.2	1.1	8.8	10.6	17.7
Cycle Q Clear(g_c), s	17.4	25.9	8.1	5.1	32.8	32.8	7.3	15.2	1.1	8.8	10.6	17.7
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	501	1488	462	392	930	477	852	1783	795	253	1131	505
V/C Ratio(X)	1.11	0.80	0.30	0.40	1.16	1.16	0.30	0.40	0.04	1.41	0.36	0.60
Avail Cap(c_a), veh/h	501	1838	571	392	930	477	852	1783	795	253	1131	505
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)	0.63	0.63	0.63	0.27	0.27	0.27	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	39.3	33.0	49.4	43.6	43.6	36.8	18.7	12.7	55.6	31.5	28.6
Incr Delay (d2), s/veh	65.6	1.4	0.2	0.1	74.9	78.5	0.1	0.7	0.1	207.5	0.9	5.3
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	11.8	10.5	0.0	2.1	22.8	23.8	3.0	6.1	0.4	11.0	4.6	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.9	40.7	33.2	49.5	118.5	122.1	36.9	19.4	12.8	263.1	32.4	33.9
LnGrp LOS	F	D	C	D	F	F	D	B	B	F	C	C
Approach Vol, veh/h		1885			1789			1009			1072	
Approach Delay, s/veh		62.6			113.5			23.6			109.8	
Approach LOS		E			F			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	66.1	19.8	41.2	35.5	44.0	22.0	39.0
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	8.8	39.8	7.0	* 43	10.4	* 38	17.4	32.8
Max Q Clear Time (g_c+I1), s	10.8	17.2	7.1	27.9	9.3	19.7	19.4	34.8
Green Ext Time (p_c), s	0.0	4.7	0.0	7.1	0.1	3.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	80.4
HCM 6th LOS	F

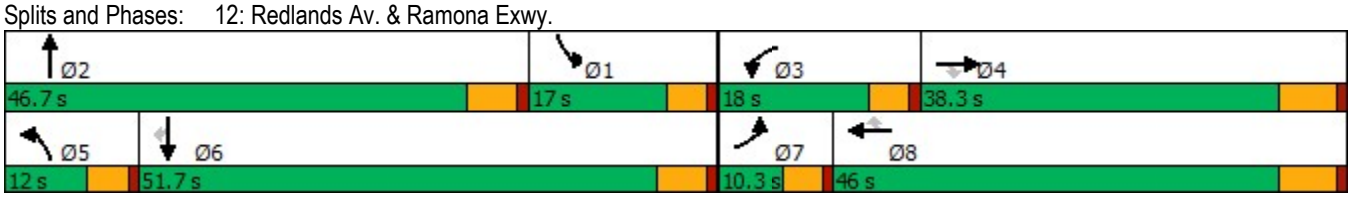
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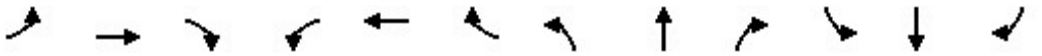
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	264	1330	77	143	1811	574	90	178	211	147	75
Future Volume (vph)	264	1330	77	143	1811	574	90	178	211	147	75
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	10.3	38.3	38.3	18.0	46.0	46.0	12.0	46.7	17.0	51.7	51.7
Total Split (%)	8.6%	31.9%	31.9%	15.0%	38.3%	38.3%	10.0%	38.9%	14.2%	43.1%	43.1%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.7	33.9	33.9	11.9	40.0	40.0	7.4	27.1	12.5	32.1	32.1
Actuated g/C Ratio	0.05	0.32	0.32	0.11	0.38	0.38	0.07	0.26	0.12	0.30	0.30
v/c Ratio	2.83	0.84	0.13	0.74	0.96	0.68	0.75	0.84	1.04	0.27	0.13
Control Delay	875.1	40.6	0.4	69.5	47.4	12.0	84.8	47.9	120.2	28.6	0.5
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	875.1	40.6	0.4	69.5	47.4	12.0	84.8	47.9	120.2	28.6	0.5
LOS	F	D	A	E	D	B	F	D	F	C	A
Approach Delay		170.4			40.6			54.9		68.3	
Approach LOS		F			D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.83	
Intersection Signal Delay: 86.7	Intersection LOS: F
Intersection Capacity Utilization 100.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	1330	77	143	1811	574	90	178	210	211	147	75
Future Volume (veh/h)	264	1330	77	143	1811	574	90	178	210	211	147	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	269	1357	69	146	1848	460	92	182	179	215	150	72
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1711	520	176	1937	589	116	208	204	211	566	472
Arrive On Green	0.05	0.34	0.34	0.10	0.38	0.38	0.07	0.24	0.24	0.12	0.30	0.30
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	860	845	1781	1870	1560
Grp Volume(v), veh/h	269	1357	69	146	1848	460	92	0	361	215	150	72
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1705	1781	1870	1560
Q Serve(g_s), s	5.7	25.2	3.2	8.4	36.9	17.3	5.3	0.0	21.3	12.4	6.4	3.5
Cycle Q Clear(g_c), s	5.7	25.2	3.2	8.4	36.9	17.3	5.3	0.0	21.3	12.4	6.4	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	97	1711	520	176	1937	589	116	0	412	211	566	472
V/C Ratio(X)	2.78	0.79	0.13	0.83	0.95	0.78	0.79	0.00	0.88	1.02	0.27	0.15
Avail Cap(c_a), veh/h	97	1711	520	228	1940	590	126	0	672	211	827	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	31.5	24.2	46.4	31.6	11.4	48.3	0.0	38.2	46.2	27.7	26.7
Incr Delay (d2), s/veh	826.8	2.6	0.1	14.4	11.5	6.7	23.8	0.0	7.5	67.1	0.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.7	10.0	1.1	4.3	15.9	6.1	3.1	0.0	9.4	9.3	2.8	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	876.3	34.2	24.3	60.8	43.1	18.1	72.1	0.0	45.7	113.3	27.9	26.9
LnGrp LOS	F	C	C	E	D	B	E	A	D	F	C	C
Approach Vol, veh/h		1695			2454			453			437	
Approach Delay, s/veh		167.4			39.5			51.0			69.8	
Approach LOS		F			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	30.7	14.9	41.3	11.4	37.1	10.3	45.9
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	12.4	* 41	13.4	32.1	7.4	46.3	5.7	39.8
Max Q Clear Time (g_c+I1), s	14.4	23.3	10.4	27.2	7.3	8.4	7.7	38.9
Green Ext Time (p_c), s	0.0	2.0	0.0	3.3	0.0	1.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	86.2
HCM 6th LOS	F

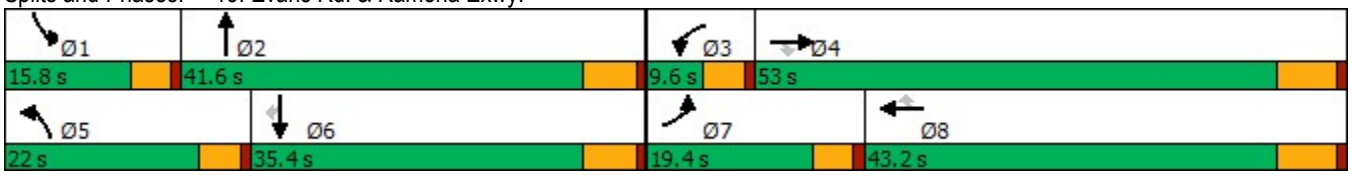
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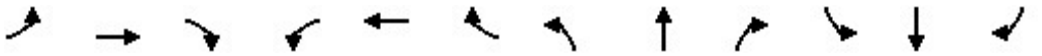
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	383	1151	217	19	1589	349	469	510	280	274	470
Future Volume (vph)	383	1151	217	19	1589	349	469	510	280	274	470
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	19.4	53.0	53.0	9.6	43.2	43.2	22.0	41.6	15.8	35.4	35.4
Total Split (%)	16.2%	44.2%	44.2%	8.0%	36.0%	36.0%	18.3%	34.7%	13.2%	29.5%	29.5%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.2	54.7	54.7	5.6	39.3	39.3	18.0	34.8	11.7	28.5	28.5
Actuated g/C Ratio	0.13	0.47	0.47	0.05	0.34	0.34	0.15	0.30	0.10	0.24	0.24
v/c Ratio	0.90	0.50	0.26	0.24	1.39	0.55	0.93	0.54	0.85	0.33	0.91
Control Delay	74.2	23.8	3.7	62.1	214.2	18.3	74.3	36.0	75.2	37.3	48.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.2	23.8	3.7	62.1	214.2	18.3	74.3	36.0	75.2	37.3	48.4
LOS	E	C	A	E	F	B	E	D	E	D	D
Approach Delay		32.3			177.7			53.8		52.8	
Approach LOS		C			F			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.39	
Intersection Signal Delay: 89.3	Intersection LOS: F
Intersection Capacity Utilization 96.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	1151	217	19	1589	349	469	510	30	280	274	470
Future Volume (veh/h)	383	1151	217	19	1589	349	469	510	30	280	274	470
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	399	1199	0	20	1655	268	489	531	19	292	285	394
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	443	2194		45	1161	518	518	1096	39	340	930	415
Arrive On Green	0.13	0.43	0.00	0.03	0.33	0.33	0.15	0.31	0.31	0.10	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3498	125	3456	3554	1585
Grp Volume(v), veh/h	399	1199	0	20	1655	268	489	269	281	292	285	394
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1846	1728	1777	1585
Q Serve(g_s), s	13.7	21.0	0.0	1.3	39.2	16.4	16.8	14.7	14.8	10.0	7.7	29.3
Cycle Q Clear(g_c), s	13.7	21.0	0.0	1.3	39.2	16.4	16.8	14.7	14.8	10.0	7.7	29.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	443	2194		45	1161	518	518	557	578	340	930	415
V/C Ratio(X)	0.90	0.55		0.44	1.43	0.52	0.94	0.48	0.49	0.86	0.31	0.95
Avail Cap(c_a), veh/h	443	2194		83	1161	518	518	557	578	340	930	415
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	25.5	0.0	57.7	40.4	32.7	50.5	33.3	33.4	53.3	35.6	43.5
Incr Delay (d2), s/veh	20.4	0.3	0.0	2.5	196.6	0.9	25.8	0.7	0.6	18.5	0.2	31.6
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	6.9	7.9	0.0	0.6	47.6	6.1	8.9	6.2	6.5	5.1	3.3	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	25.8	0.0	60.2	237.0	33.6	76.3	34.0	34.0	71.8	35.7	75.1
LnGrp LOS	E	C		E	F	C	E	C	C	E	D	E
Approach Vol, veh/h		1598	A		1943			1039			971	
Approach Delay, s/veh		37.3			207.1			53.9			62.6	
Approach LOS		D			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	41.6	7.0	55.6	22.0	35.4	19.4	43.2
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	11.2	35.8	5.0	46.5	17.4	29.6	14.8	36.7
Max Q Clear Time (g_c+I1), s	12.0	16.8	3.3	23.0	18.8	31.3	15.7	41.2
Green Ext Time (p_c), s	0.0	2.8	0.0	8.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	104.3
HCM 6th LOS	F

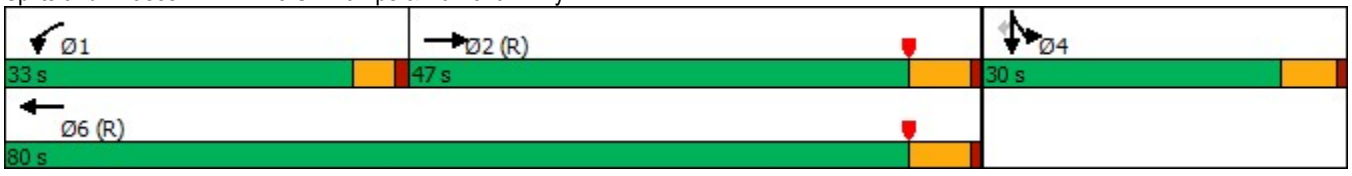
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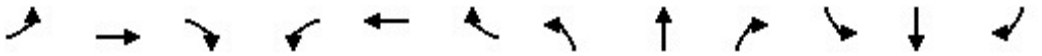
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1132	688	1163	1098	0	173
Future Volume (vph)	1132	688	1163	1098	0	173
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	47.0	33.0	80.0	30.0	30.0	30.0
Total Split (%)	42.7%	30.0%	72.7%	27.3%	27.3%	27.3%
Yellow Time (s)	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	41.0	28.5	74.0	24.5	24.5	24.5
Actuated g/C Ratio	0.37	0.26	0.67	0.22	0.22	0.22
v/c Ratio	1.39	1.53	0.50	1.50	1.50	0.41
Control Delay	209.6	270.6	3.1	269.8	269.8	18.7
Queue Delay	0.2	0.0	0.5	89.0	89.0	0.0
Total Delay	209.8	270.6	3.6	358.8	358.8	18.7
LOS	F	F	A	F	F	B
Approach Delay	209.8		102.8		312.4	
Approach LOS	F		F		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.53	
Intersection Signal Delay: 196.1	Intersection LOS: F
Intersection Capacity Utilization 202.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1132	675	688	1163	0	0	0	0	1098	0	173
Future Volume (veh/h)	0	1132	675	688	1163	0	0	0	0	1098	0	173
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1155	511	702	1187	0				1120	0	135
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	2	2	2	2	0				2	2	2
Cap, veh/h	0	905	385	462	2391	0				793	0	353
Arrive On Green	0.00	0.37	0.37	0.26	0.67	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	2521	1034	1781	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	834	832	702	1187	0				1120	0	135
Grp Sat Flow(s),veh/h/ln	0	1777	1684	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	41.0	41.0	28.5	18.1	0.0				24.5	0.0	8.0
Cycle Q Clear(g_c), s	0.0	41.0	41.0	28.5	18.1	0.0				24.5	0.0	8.0
Prop In Lane	0.00		0.61	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	662	628	462	2391	0				793	0	353
V/C Ratio(X)	0.00	1.26	1.33	1.52	0.50	0.00				1.41	0.00	0.38
Avail Cap(c_a), veh/h	0	662	628	462	2391	0				793	0	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.26	0.26	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.5	34.5	40.8	8.8	0.0				42.8	0.0	36.3
Incr Delay (d2), s/veh	0.0	128.5	157.5	237.4	0.2	0.0				192.7	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	39.9	42.9	42.2	5.6	0.0				31.5	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	163.0	192.0	278.2	9.0	0.0				235.4	0.0	37.0
LnGrp LOS	A	F	F	F	A	A				F	A	D
Approach Vol, veh/h		1666			1889						1255	
Approach Delay, s/veh		177.5			109.0						214.1	
Approach LOS		F			F						F	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.0	47.0		30.0		80.0
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0
Max Green Setting (Gmax), s	28.5	41.0		24.5		74.0
Max Q Clear Time (g_c+I1), s	30.5	43.0		26.5		20.1
Green Ext Time (p_c), s	0.0	0.0		0.0		5.7

Intersection Summary		
HCM 6th Ctrl Delay		160.1
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

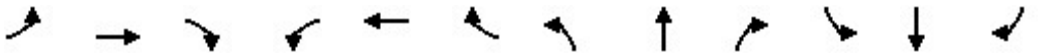
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	313	1919	1258	1137	543	4	631
Future Volume (vph)	313	1919	1258	1137	543	4	631
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	17.0	62.0	45.0	45.0	48.0	48.0	48.0
Total Split (%)	15.5%	56.4%	40.9%	40.9%	43.6%	43.6%	43.6%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	12.5	56.0	39.0	39.0	42.5	42.5	42.5
Actuated g/C Ratio	0.11	0.51	0.35	0.35	0.39	0.39	0.39
v/c Ratio	1.61	1.10	1.03	1.21	0.43	0.44	0.99
Control Delay	305.5	81.2	70.2	123.4	27.5	27.6	63.7
Queue Delay	0.0	3.6	26.4	0.0	0.0	0.0	0.0
Total Delay	305.5	84.8	96.6	123.4	27.5	27.6	63.7
LOS	F	F	F	F	C	C	E
Approach Delay		115.8	109.3			46.9	
Approach LOS		F	F			D	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 99.1 — Intersection LOS: F
Intersection Capacity Utilization 202.3% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1919	0	0	1258	1137	543	4	631	0	0	0
Future Volume (veh/h)	313	1919	0	0	1258	1137	543	4	631	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	323	1978	0	0	1297	1038	563	0	502			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	202	1958	0	0	1409	628	1227	0	546			
Arrive On Green	0.23	1.00	0.00	0.00	0.40	0.40	0.34	0.00	0.34			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	323	1978	0	0	1297	1038	563	0	502			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	12.5	0.0	0.0	0.0	38.2	43.6	13.5	0.0	33.4			
Cycle Q Clear(g_c), s	12.5	0.0	0.0	0.0	38.2	43.6	13.5	0.0	33.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	202	1958	0	0	1409	628	1227	0	546			
V/C Ratio(X)	1.60	1.01	0.00	0.00	0.92	1.65	0.46	0.00	0.92			
Avail Cap(c_a), veh/h	202	1958	0	0	1409	628	1376	0	612			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	0.40	0.40	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.5	0.0	0.0	0.0	31.6	33.2	28.1	0.0	34.6			
Incr Delay (d2), s/veh	270.2	8.9	0.0	0.0	5.2	296.4	0.3	0.0	18.0			
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	19.8	2.4	0.0	0.0	16.0	67.0	5.6	0.0	14.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	312.7	8.9	0.0	0.0	36.7	329.6	28.3	0.0	52.6			
LnGrp LOS	F	F	A	A	D	F	C	A	D			
Approach Vol, veh/h		2301			2335			1065				
Approach Delay, s/veh		51.5			166.9			39.8				
Approach LOS		D			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.6			17.0	49.6		43.4				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		56.0			12.5	39.0		42.5				
Max Q Clear Time (g_c+I1), s		2.0			14.5	45.6		35.4				
Green Ext Time (p_c), s		14.4			0.0	0.0		2.5				

Intersection Summary	
HCM 6th Ctrl Delay	96.6
HCM 6th LOS	F

Notes

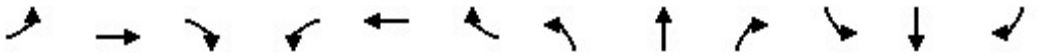
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	247	2237	34	1542	148	32	16	176	14
Future Volume (vph)	247	2237	34	1542	148	32	16	176	14
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4	3	8			2		6
Permitted Phases					8	2		6	
Detector Phase	7	4	3	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	9.6	24.2	24.2	45.6	45.6	45.6	45.6
Total Split (s)	17.0	64.0	9.6	56.6	56.6	46.4	46.4	46.4	46.4
Total Split (%)	14.2%	53.3%	8.0%	47.2%	47.2%	38.7%	38.7%	38.7%	38.7%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	12.5	62.6	5.1	50.9	50.9		20.9	20.9	20.9
Actuated g/C Ratio	0.13	0.63	0.05	0.51	0.51		0.21	0.21	0.21
v/c Ratio	1.18	1.11	0.40	0.86	0.18		0.27	0.65	0.49
Control Delay	156.0	76.7	63.5	28.6	6.6		25.1	46.5	14.8
Queue Delay	0.0	0.2	0.0	3.4	0.0		0.0	0.0	0.0
Total Delay	156.0	76.8	63.5	32.0	6.6		25.1	46.5	14.8
LOS	F	E	E	C	A		C	D	B
Approach Delay		84.2		30.4			25.1		29.2
Approach LOS		F		C			C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.9	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 59.8	Intersection LOS: E
Intersection Capacity Utilization 110.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Nevada Av./Driveway 1 & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	2237	191	34	1542	148	32	16	25	176	14	197
Future Volume (veh/h)	247	2237	191	34	1542	148	32	16	25	176	14	197
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	260	2355	152	36	1623	117	34	17	19	185	15	154
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	2125	136	58	1916	812	125	63	49	307	28	284
Arrive On Green	0.13	0.92	0.61	0.03	0.77	0.51	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1781	3479	222	1781	3741	1585	355	327	254	1372	143	1464
Grp Volume(v), veh/h	260	1254	1254	36	1623	117	70	0	0	185	0	169
Grp Sat Flow(s),veh/h/ln	1781	1870	1830	1781	1870	1585	936	0	0	1372	0	1607
Q Serve(g_s), s	12.4	57.8	57.8	1.9	27.2	3.7	1.6	0.0	0.0	4.1	0.0	9.0
Cycle Q Clear(g_c), s	12.4	57.8	57.8	1.9	27.2	3.7	10.6	0.0	0.0	14.7	0.0	9.0
Prop In Lane	1.00		0.12	1.00		1.00	0.49		0.27	1.00		0.91
Lane Grp Cap(c), veh/h	233	1143	1118	58	1916	812	238	0	0	307	0	312
V/C Ratio(X)	1.11	1.10	1.12	0.63	0.85	0.14	0.29	0.00	0.00	0.60	0.00	0.54
Avail Cap(c_a), veh/h	233	1143	1118	94	1993	844	592	0	0	647	0	710
HCM Platoon Ratio	1.00	1.50	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.1	4.0	5.7	45.2	8.5	12.2	34.2	0.0	0.0	37.0	0.0	34.3
Incr Delay (d2), s/veh	92.8	57.3	66.7	4.1	3.5	0.1	0.7	0.0	0.0	1.9	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	11.4	20.3	23.9	0.9	5.9	1.3	1.5	0.0	0.0	4.3	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	133.9	61.2	72.4	49.3	12.0	12.2	34.8	0.0	0.0	38.9	0.0	35.8
LnGrp LOS	F	F	F	D	B	B	C	A	A	D	A	D
Approach Vol, veh/h		2767			1776			70			354	
Approach Delay, s/veh		73.1			12.8			34.8			37.4	
Approach LOS		E			B			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	7.7	64.0		23.0	17.0	54.7				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		41.8	5.0	57.8		41.8	12.4	50.4				
Max Q Clear Time (g_c+I1), s		12.6	3.9	59.8		16.7	14.4	29.2				
Green Ext Time (p_c), s		0.3	0.0	0.0		1.7	0.0	14.0				

Intersection Summary												
HCM 6th Ctrl Delay			48.5									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑			↱
Traffic Vol, veh/h	0	2262	1577	50	0	45
Future Vol, veh/h	0	2262	1577	50	0	45
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, %	2	2	2	2	2	2
Mvmt Flow	0	2459	1714	54	0	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	884
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	248
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	248
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23
HCM LOS			C

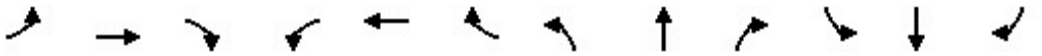
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	248
HCM Lane V/C Ratio	-	-	-	0.197
HCM Control Delay (s)	-	-	-	23
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	2159	142	1436	203	0	94	0
Future Volume (vph)	104	2159	142	1436	203	0	94	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	9.6	24.2	45.6	45.6	45.6	45.6
Total Split (s)	20.0	57.0	16.2	53.2	46.8	46.8	46.8	46.8
Total Split (%)	16.7%	47.5%	13.5%	44.3%	39.0%	39.0%	39.0%	39.0%
Yellow Time (s)	3.6	5.2	3.6	5.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	Min	Min
Act Effct Green (s)	10.5	51.2	11.4	52.1	23.0	23.0	23.0	23.0
Actuated g/C Ratio	0.10	0.51	0.11	0.51	0.23	0.23	0.23	0.23
v/c Ratio	0.61	0.87	0.78	0.56	0.72	0.34	0.46	0.09
Control Delay	59.5	28.0	71.7	19.8	49.0	3.7	39.4	0.3
Queue Delay	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	31.9	71.7	19.8	49.0	3.7	39.4	0.3
LOS	E	C	E	B	D	A	D	A
Approach Delay		33.1		24.3		28.7		27.1
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 88.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Ramona Exwy. & Driveway 3





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	2159	104	142	1436	45	203	0	166	94	0	43
Future Volume (veh/h)	104	2159	104	142	1436	45	203	0	166	94	0	43
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	2347	113	154	1561	49	221	0	180	102	0	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	2741	131	185	2923	92	341	0	349	219	0	349
Arrive On Green	0.08	0.52	0.52	0.10	0.54	0.54	0.22	0.00	0.22	0.22	0.00	0.22
Sat Flow, veh/h	1781	5312	254	1781	5411	170	1359	0	1585	1204	0	1585
Grp Volume(v), veh/h	113	1647	813	154	1079	531	221	0	180	102	0	47
Grp Sat Flow(s),veh/h/ln	1781	1870	1825	1781	1870	1840	1359	0	1585	1204	0	1585
Q Serve(g_s), s	6.0	36.7	37.5	8.2	18.0	18.0	15.0	0.0	9.6	7.8	0.0	2.3
Cycle Q Clear(g_c), s	6.0	36.7	37.5	8.2	18.0	18.0	17.3	0.0	9.6	17.5	0.0	2.3
Prop In Lane	1.00		0.14	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	1930	941	185	2021	994	341	0	349	219	0	349
V/C Ratio(X)	0.80	0.85	0.86	0.83	0.53	0.53	0.65	0.00	0.52	0.46	0.00	0.13
Avail Cap(c_a), veh/h	285	1971	962	214	2021	994	637	0	694	482	0	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.6	20.2	20.4	42.3	14.3	14.3	37.2	0.0	33.1	40.8	0.0	30.2
Incr Delay (d2), s/veh	3.8	3.8	8.1	18.4	0.3	0.6	2.1	0.0	1.2	1.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	16.2	17.2	4.5	7.4	7.4	5.2	0.0	3.8	2.4	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	24.0	28.4	60.8	14.6	14.9	39.2	0.0	34.2	42.3	0.0	30.4
LnGrp LOS	D	C	C	E	B	B	D	A	C	D	A	C
Approach Vol, veh/h		2573			1764			401			149	
Approach Delay, s/veh		26.4			18.7			37.0			38.5	
Approach LOS		C			B			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.8	14.6	55.9		25.8	12.3	58.3				
Change Period (Y+Rc), s		4.6	4.6	6.2		4.6	4.6	6.2				
Max Green Setting (Gmax), s		42.2	11.6	50.8		42.2	15.4	47.0				
Max Q Clear Time (g_c+I1), s		19.3	10.2	39.5		19.5	8.0	20.0				
Green Ext Time (p_c), s		1.9	0.0	10.3		0.6	0.1	14.4				

Intersection Summary												
HCM 6th Ctrl Delay			24.9									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Vol, veh/h	0	2188	1516	107	0	99
Future Vol, veh/h	0	2188	1516	107	0	99
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, %	2	2	2	2	2	2
Mvmt Flow	0	2378	1648	116	0	108

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	882
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	248
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	248
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30.2
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	248
HCM Lane V/C Ratio	-	-	-	0.434
HCM Control Delay (s)	-	-	-	30.2
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	2.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	8	22	229	261	8
Future Vol, veh/h	21	8	22	229	261	8
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	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	9	24	249	284	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	586	289	293	0	-	0
Stage 1	289	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	473	750	1269	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	464	750	1269	-	-	-
Mov Cap-2 Maneuver	554	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1269	-	597	-	-
HCM Lane V/C Ratio	0.019	-	0.053	-	-
HCM Control Delay (s)	7.9	-	11.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	0	229	261	14
Future Vol, veh/h	0	16	0	229	261	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, %	2	2	2	2	2	2
Mvmt Flow	0	17	0	249	284	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	292	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.23	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	746	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	746	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

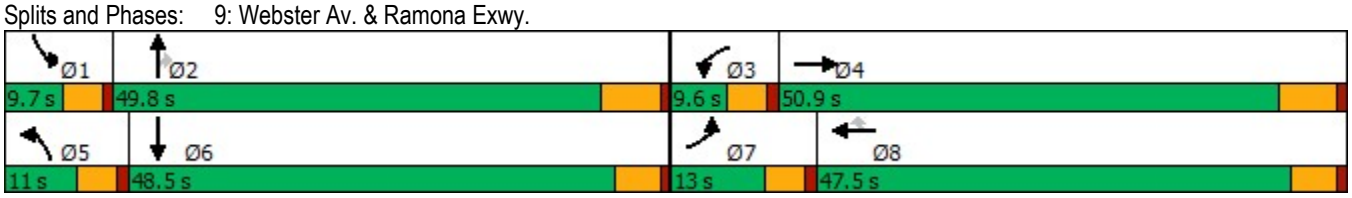
Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

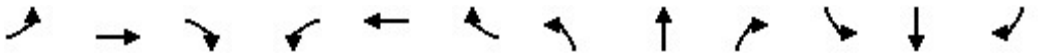
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	746	-	-
HCM Lane V/C Ratio	-	0.023	-	-
HCM Control Delay (s)	-	9.9	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	153	1908	37	2146	42	198	45	50	63	74
Future Volume (vph)	153	1908	37	2146	42	198	45	50	63	74
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.5	9.6	47.5	47.5	9.6	47.2	47.2	9.6	47.5
Total Split (s)	13.0	50.9	9.6	47.5	47.5	11.0	49.8	49.8	9.7	48.5
Total Split (%)	10.8%	42.4%	8.0%	39.6%	39.6%	9.2%	41.5%	41.5%	8.1%	40.4%
Yellow Time (s)	3.6	5.2	3.6	4.1	4.1	3.6	5.2	5.2	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	5.1	5.1	4.6	6.2	6.2	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.5	49.5	5.1	42.9	42.9	6.5	17.1	17.1	8.7	16.9
Actuated g/C Ratio	0.09	0.52	0.05	0.45	0.45	0.07	0.18	0.18	0.09	0.18
v/c Ratio	1.03	0.82	0.41	0.99	0.06	1.74	0.14	0.14	0.41	0.60
Control Delay	123.9	24.9	60.5	43.2	0.1	397.0	31.3	0.8	55.4	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.9	24.9	60.5	43.2	0.1	397.0	31.3	0.8	55.4	27.4
LOS	F	C	E	D	A	F	C	A	E	C
Approach Delay		31.8		42.6			273.5			33.9
Approach LOS		C		D			F			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.5	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.74	
Intersection Signal Delay: 51.0	Intersection LOS: D
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Webster Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1908	135	37	2146	42	198	45	50	63	74	135
Future Volume (veh/h)	153	1908	135	37	2146	42	198	45	50	63	74	135
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	2030	138	39	2283	40	211	48	48	67	79	74
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	2603	176	62	2417	750	128	265	225	86	105	99
Arrive On Green	0.09	0.53	0.53	0.03	0.47	0.47	0.07	0.14	0.14	0.05	0.12	0.12
Sat Flow, veh/h	1781	4885	330	1781	5106	1585	1781	1870	1585	1781	888	832
Grp Volume(v), veh/h	163	1411	757	39	2283	40	211	48	48	67	0	153
Grp Sat Flow(s),veh/h/ln	1781	1702	1811	1781	1702	1585	1781	1870	1585	1781	0	1721
Q Serve(g_s), s	8.1	29.5	29.9	1.9	38.0	1.2	6.4	2.0	2.4	3.3	0.0	7.7
Cycle Q Clear(g_c), s	8.1	29.5	29.9	1.9	38.0	1.2	6.4	2.0	2.4	3.3	0.0	7.7
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	168	1814	965	62	2417	750	128	265	225	86	0	204
V/C Ratio(X)	0.97	0.78	0.78	0.63	0.94	0.05	1.65	0.18	0.21	0.78	0.00	0.75
Avail Cap(c_a), veh/h	168	1814	965	100	2428	754	128	914	775	102	0	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.3	16.6	16.7	42.5	22.4	12.7	41.4	33.7	33.9	42.0	0.0	38.0
Incr Delay (d2), s/veh	60.6	2.2	4.3	3.9	8.5	0.0	324.9	0.3	0.5	22.3	0.0	5.5
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	6.2	10.0	11.3	0.9	14.7	0.4	14.3	0.9	0.9	2.0	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.8	18.8	21.0	46.4	30.9	12.7	366.3	34.0	34.3	64.3	0.0	43.5
LnGrp LOS	F	B	C	D	C	B	F	C	C	E	A	D
Approach Vol, veh/h		2331			2362			307			220	
Approach Delay, s/veh		25.3			30.9			262.5			49.8	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	18.9	7.7	53.7	11.0	16.8	13.0	48.4
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	* 6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.1	43.6	5.0	44.7	6.4	* 43	8.4	* 42
Max Q Clear Time (g_c+I1), s	5.3	4.4	3.9	31.9	8.4	9.7	10.1	40.0
Green Ext Time (p_c), s	0.0	0.4	0.0	9.9	0.0	0.9	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

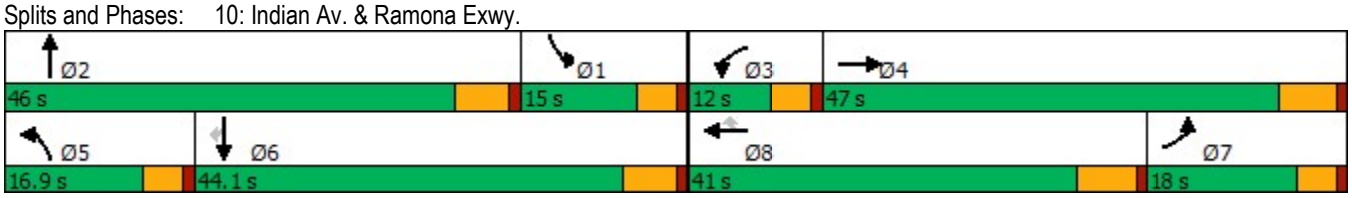
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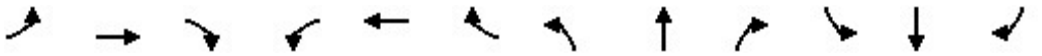
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	425	1872	68	1747	216	116	235	210	187	229
Future Volume (vph)	425	1872	68	1747	216	116	235	210	187	229
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	18.0	47.0	12.0	41.0	41.0	16.9	46.0	15.0	44.1	44.1
Total Split (%)	15.0%	39.2%	10.0%	34.2%	34.2%	14.1%	38.3%	12.5%	36.8%	36.8%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.5	43.8	7.0	35.1	35.1	10.3	16.9	10.5	17.1	17.1
Actuated g/C Ratio	0.14	0.45	0.07	0.36	0.36	0.11	0.17	0.11	0.18	0.18
v/c Ratio	1.82	0.89	0.57	1.00	0.33	0.65	0.58	1.16	0.32	0.51
Control Delay	413.2	32.5	64.1	54.2	8.7	60.2	31.1	156.8	36.0	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	413.2	32.5	64.1	54.2	8.7	60.2	31.1	156.8	36.0	8.2
LOS	F	C	E	D	A	E	C	F	D	A
Approach Delay		101.5		49.7			38.3		66.3	
Approach LOS		F		D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.5	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.82	
Intersection Signal Delay: 72.8	Intersection LOS: E
Intersection Capacity Utilization 97.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	1872	46	68	1747	216	116	235	122	210	187	229
Future Volume (veh/h)	425	1872	46	68	1747	216	116	235	122	210	187	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	447	1971	42	72	1839	203	122	247	84	221	197	184
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	2421	52	93	1865	579	152	349	116	194	603	269
Arrive On Green	0.14	0.47	0.47	0.05	0.37	0.37	0.09	0.13	0.13	0.11	0.17	0.17
Sat Flow, veh/h	1781	5144	109	1781	5106	1585	1781	2621	869	1781	3554	1585
Grp Volume(v), veh/h	447	1304	709	72	1839	203	122	165	166	221	197	184
Grp Sat Flow(s),veh/h/ln	1781	1702	1849	1781	1702	1585	1781	1777	1714	1781	1777	1585
Q Serve(g_s), s	13.4	31.3	31.4	3.8	34.1	8.9	6.4	8.5	8.8	10.4	4.6	7.1
Cycle Q Clear(g_c), s	13.4	31.3	31.4	3.8	34.1	8.9	6.4	8.5	8.8	10.4	4.6	7.1
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	250	1602	870	93	1865	579	152	237	228	194	603	269
V/C Ratio(X)	1.78	0.81	0.82	0.78	0.99	0.35	0.80	0.70	0.73	1.14	0.33	0.68
Avail Cap(c_a), veh/h	250	1602	870	138	1865	579	230	750	723	194	1428	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	21.6	21.7	44.6	30.0	22.0	42.8	39.5	39.6	42.4	34.8	17.1
Incr Delay (d2), s/veh	368.7	3.3	6.0	7.5	17.6	0.4	6.2	3.7	4.3	106.2	0.3	3.1
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	31.2	11.6	13.2	1.8	15.5	0.1	3.0	3.8	3.9	10.2	2.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	409.7	25.0	27.7	52.1	47.6	22.4	49.0	43.2	44.0	148.6	35.1	20.2
LnGrp LOS	F	C	C	D	D	C	D	D	D	F	D	C
Approach Vol, veh/h		2460			2114			453			602	
Approach Delay, s/veh		95.7			45.4			45.0			72.2	
Approach LOS		F			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	18.5	9.5	51.1	12.7	22.0	19.6	41.0
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	10.4	* 40	7.4	40.8	12.3	38.3	13.4	* 35
Max Q Clear Time (g_c+I1), s	12.4	10.8	5.8	33.4	8.4	9.1	15.4	36.1
Green Ext Time (p_c), s	0.0	1.9	0.0	5.9	0.0	1.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	70.2
HCM 6th LOS	E

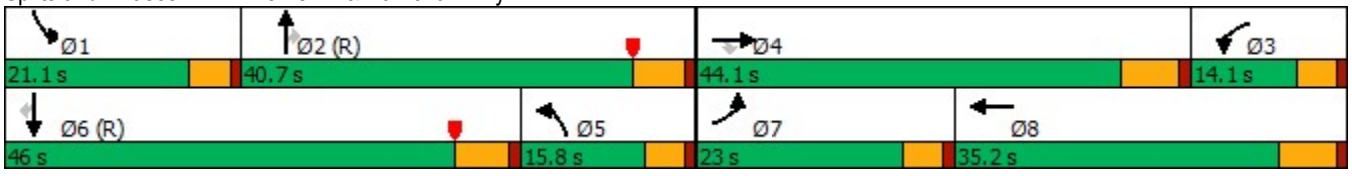
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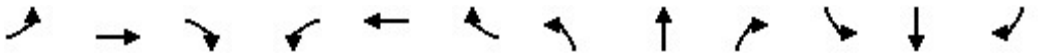
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	495	1471	237	185	1358	290	585	140	464	739	388
Future Volume (vph)	495	1471	237	185	1358	290	585	140	464	739	388
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	38.8	9.6	41.8	41.8
Total Split (s)	23.0	44.1	44.1	14.1	35.2	15.8	40.7	40.7	21.1	46.0	46.0
Total Split (%)	19.2%	36.8%	36.8%	11.8%	29.3%	13.2%	33.9%	33.9%	17.6%	38.3%	38.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.4	37.9	37.9	9.5	29.0	11.2	34.9	34.9	16.5	40.2	40.2
Actuated g/C Ratio	0.15	0.32	0.32	0.08	0.24	0.09	0.29	0.29	0.14	0.34	0.34
v/c Ratio	1.00	0.97	0.39	0.73	1.41	0.97	0.60	0.26	1.05	0.66	0.56
Control Delay	90.6	58.0	8.9	70.0	224.7	96.7	39.6	4.5	104.1	37.4	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.6	58.0	8.9	70.0	224.7	96.7	39.6	4.5	104.1	37.4	11.0
LOS	F	E	A	E	F	F	D	A	F	D	B
Approach Delay		60.0			208.8		51.1			50.4	
Approach LOS		E			F		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.41	
Intersection Signal Delay: 96.9	Intersection LOS: F
Intersection Capacity Utilization 93.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	495	1471	237	185	1358	260	290	585	140	464	739	388
Future Volume (veh/h)	495	1471	237	185	1358	260	290	585	140	464	739	388
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	527	1565	175	197	1445	259	309	622	94	494	786	289
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	530	1613	501	252	1081	193	1533	2314	1032	475	1190	531
Arrive On Green	0.15	0.32	0.32	0.07	0.25	0.25	0.44	0.65	0.65	0.14	0.34	0.34
Sat Flow, veh/h	3456	5106	1585	3456	4345	777	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	527	1565	175	197	1131	573	309	622	94	494	786	289
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1718	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	18.3	36.3	10.2	6.7	29.8	29.8	6.6	8.9	4.1	16.5	22.7	21.2
Cycle Q Clear(g_c), s	18.3	36.3	10.2	6.7	29.8	29.8	6.6	8.9	4.1	16.5	22.7	21.2
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	530	1613	501	252	847	427	1533	2314	1032	475	1190	531
V/C Ratio(X)	0.99	0.97	0.35	0.78	1.34	1.34	0.20	0.27	0.09	1.04	0.66	0.54
Avail Cap(c_a), veh/h	530	1613	501	274	847	427	1533	2314	1032	475	1190	531
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)	0.28	0.28	0.28	0.14	0.14	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	40.5	31.6	54.7	45.1	45.1	20.4	8.8	18.8	51.8	34.1	46.1
Incr Delay (d2), s/veh	19.3	6.6	0.1	1.7	152.7	155.2	0.0	0.3	0.2	52.0	2.9	4.0
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	9.0	15.3	3.8	2.9	29.9	30.5	2.6	3.1	0.9	10.4	9.9	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.1	47.1	31.7	56.4	197.7	200.2	20.4	9.1	19.0	103.7	37.0	50.0
LnGrp LOS	E	D	C	E	F	F	C	A	B	F	D	D
Approach Vol, veh/h		2267			1901			1025			1569	
Approach Delay, s/veh		51.2			183.8			13.4			60.4	
Approach LOS		D			F			B			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	84.8	14.9	44.1	59.9	46.0	23.0	36.0
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	16.5	34.9	9.5	* 38	11.2	* 40	18.4	29.0
Max Q Clear Time (g_c+I1), s	18.5	10.9	8.7	38.3	8.6	24.7	20.3	31.8
Green Ext Time (p_c), s	0.0	4.2	0.0	0.0	0.2	5.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	84.9
HCM 6th LOS	F

Notes

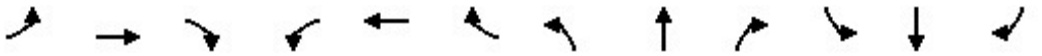
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	168	2111	101	186	1724	267	105	144	398	164	98
Future Volume (vph)	168	2111	101	186	1724	267	105	144	398	164	98
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	9.9	40.0	40.0	11.6	41.7	41.7	11.3	44.4	24.0	57.1	57.1
Total Split (%)	8.3%	33.3%	33.3%	9.7%	34.8%	34.8%	9.4%	37.0%	20.0%	47.6%	47.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.3	34.0	34.0	7.0	35.7	35.7	6.7	22.2	19.5	35.0	35.0
Actuated g/C Ratio	0.05	0.33	0.33	0.07	0.34	0.34	0.06	0.21	0.19	0.34	0.34
v/c Ratio	1.94	1.32	0.17	1.62	1.03	0.42	0.95	0.76	1.25	0.27	0.17
Control Delay	487.1	178.6	1.9	347.6	62.9	10.5	123.1	44.2	171.1	25.5	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	487.1	178.6	1.9	347.6	62.9	10.5	123.1	44.2	171.1	25.5	3.9
LOS	F	F	A	F	E	B	F	D	F	C	A
Approach Delay		192.9			80.9			64.9		110.2	
Approach LOS		F			F			E		F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103.7	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.94	
Intersection Signal Delay: 130.6	Intersection LOS: F
Intersection Capacity Utilization 107.3%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	2111	101	186	1724	267	105	144	151	398	164	98
Future Volume (veh/h)	168	2111	101	186	1724	267	105	144	151	398	164	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	2199	70	194	1796	226	109	150	115	415	171	93
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	1726	524	125	1813	551	119	179	137	346	593	502
Arrive On Green	0.05	0.34	0.34	0.07	0.36	0.36	0.07	0.18	0.18	0.19	0.32	0.32
Sat Flow, veh/h	1781	5106	1552	1781	5106	1552	1781	982	753	1781	1870	1585
Grp Volume(v), veh/h	175	2199	70	194	1796	226	109	0	265	415	171	93
Grp Sat Flow(s),veh/h/ln	1781	1702	1552	1781	1702	1552	1781	0	1735	1781	1870	1585
Q Serve(g_s), s	5.3	33.8	3.1	7.0	35.0	5.7	6.1	0.0	14.7	19.4	6.9	4.3
Cycle Q Clear(g_c), s	5.3	33.8	3.1	7.0	35.0	5.7	6.1	0.0	14.7	19.4	6.9	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	94	1726	524	125	1813	551	119	0	316	346	593	502
V/C Ratio(X)	1.85	1.27	0.13	1.56	0.99	0.41	0.91	0.00	0.84	1.20	0.29	0.19
Avail Cap(c_a), veh/h	94	1726	524	125	1813	551	119	0	677	346	967	820
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	33.1	22.9	46.5	32.1	6.6	46.4	0.0	39.5	40.3	25.7	24.8
Incr Delay (d2), s/veh	421.8	128.0	0.1	285.5	18.9	0.5	55.2	0.0	6.0	114.9	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	33.1	1.1	12.8	16.2	3.5	4.5	0.0	6.6	19.2	3.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	469.1	161.1	23.1	332.0	51.0	7.1	101.6	0.0	45.4	155.2	25.9	25.0
LnGrp LOS	F	F	C	F	D	A	F	A	D	F	C	C
Approach Vol, veh/h		2444			2216			374			679	
Approach Delay, s/veh		179.2			71.1			61.8			104.8	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	23.6	11.6	40.0	11.3	37.1	9.9	41.7
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	19.4	* 39	7.0	33.8	6.7	51.7	5.3	35.5
Max Q Clear Time (g_c+I1), s	21.4	16.7	9.0	35.8	8.1	8.9	7.3	37.0
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	120.7
HCM 6th LOS	F

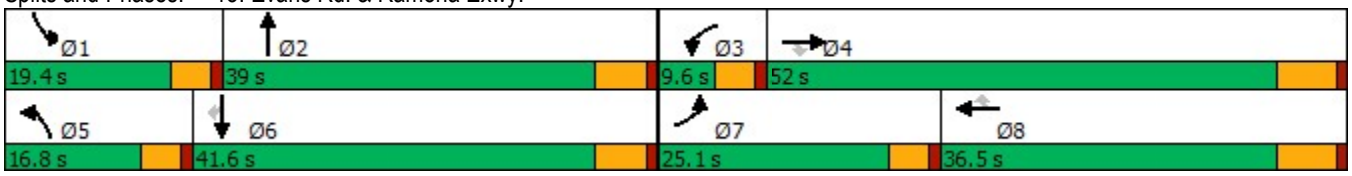
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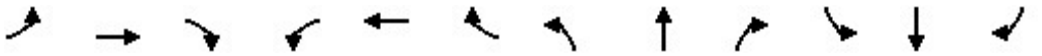
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	451	1700	408	20	1431	304	243	313	329	614	503
Future Volume (vph)	451	1700	408	20	1431	304	243	313	329	614	503
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	25.1	52.0	52.0	9.6	36.5	36.5	16.8	39.0	19.4	41.6	41.6
Total Split (%)	20.9%	43.3%	43.3%	8.0%	30.4%	30.4%	14.0%	32.5%	16.2%	34.7%	34.7%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	18.3	51.7	51.7	5.7	32.8	32.8	11.6	27.0	14.1	29.5	29.5
Actuated g/C Ratio	0.17	0.48	0.48	0.05	0.30	0.30	0.11	0.25	0.13	0.27	0.27
v/c Ratio	0.79	0.72	0.44	0.22	1.36	0.53	0.68	0.38	0.75	0.65	0.78
Control Delay	55.1	26.7	5.1	59.5	201.2	21.0	58.0	34.8	58.3	38.5	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	26.7	5.1	59.5	201.2	21.0	58.0	34.8	58.3	38.5	23.3
LOS	E	C	A	E	F	C	E	C	E	D	C
Approach Delay		28.3			168.4			44.7		37.7	
Approach LOS		C			F			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.36	
Intersection Signal Delay: 70.8	Intersection LOS: E
Intersection Capacity Utilization 89.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	451	1700	408	20	1431	304	243	313	13	329	614	503
Future Volume (veh/h)	451	1700	408	20	1431	304	243	313	13	329	614	503
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	460	1735	0	20	1460	232	248	319	10	336	627	417
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	542	2173		47	1049	468	327	995	31	415	1095	489
Arrive On Green	0.16	0.43	0.00	0.03	0.30	0.30	0.09	0.28	0.28	0.12	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3517	110	3456	3554	1585
Grp Volume(v), veh/h	460	1735	0	20	1460	232	248	161	168	336	627	417
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1851	1728	1777	1585
Q Serve(g_s), s	14.3	32.6	0.0	1.2	32.5	13.3	7.7	7.9	7.9	10.4	16.3	27.2
Cycle Q Clear(g_c), s	14.3	32.6	0.0	1.2	32.5	13.3	7.7	7.9	7.9	10.4	16.3	27.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	542	2173		47	1049	468	327	503	524	415	1095	489
V/C Ratio(X)	0.85	0.80		0.43	1.39	0.50	0.76	0.32	0.32	0.81	0.57	0.85
Avail Cap(c_a), veh/h	662	2226		91	1049	468	402	565	588	483	1213	541
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	27.5	0.0	52.8	38.8	32.0	48.6	31.1	31.1	47.2	32.0	35.8
Incr Delay (d2), s/veh	7.4	2.1	0.0	2.3	182.3	0.8	4.9	0.4	0.4	7.5	0.5	11.7
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	12.3	0.0	0.6	39.6	4.9	3.4	3.3	3.4	4.8	6.8	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	29.6	0.0	55.1	221.1	32.9	53.5	31.5	31.5	54.7	32.5	47.4
LnGrp LOS	D	C		E	F	C	D	C	C	D	C	D
Approach Vol, veh/h		2195	A		1712			577			1380	
Approach Delay, s/veh		34.4			193.7			41.0			42.4	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	35.2	6.9	50.9	14.4	37.9	21.3	36.5
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	14.8	33.2	5.0	45.5	12.2	35.8	20.5	30.0
Max Q Clear Time (g_c+I1), s	12.4	9.9	3.2	34.6	9.7	29.2	16.3	34.5
Green Ext Time (p_c), s	0.2	1.6	0.0	7.5	0.1	2.9	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	83.5
HCM 6th LOS	F

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.3: EAPC (2026) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		EAPC
				CALC JB	DATE	09/13/23
Jurisdiction: **City of Perris**				CHK JB	DATE	09/13/23
Major Street: **Webster**				Critical Approach Speed (Major)		35 mph
Minor Street: **Driveway 5**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **8,342** vpd Minor Street Future ADT = **297** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Number of lanes for moving traffic on each approach		Minimum Requirements EADT			
			Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Major Street	Minor Street	Urban	Rural	Urban	Rural
XX	*1* **8,342**	*1* **297**	8,000 *	5,600	2,400	1,680
CONDITION A - Minimum Vehicular Volume	*2* +	*1*	9,600	6,720	2,400	1,680
Satisfied / Not Satisfied **XX**	*2* +	*2* +	9,600	6,720	3,200	2,240
	1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic			Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied **XX**						
	Major Street	Minor Street	Urban	Rural	Urban	Rural
	1 **8,342**	*1* **297**	12,000	8,400	1,200	850
	2 +	*1*	14,400	10,080	1,200	850
	2 +	*2* +	14,400	10,080	1,600	1,120
	1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied / Not Satisfied **XX**			2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 12%	**B** 25%				

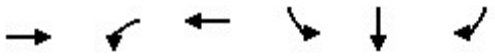
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 6.4: EAC (2026) QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1293	517	1282	557	559	334
v/c Ratio	1.00	1.02	0.53	1.55	1.55	0.82
Control Delay	56.7	61.1	3.3	293.3	293.8	47.3
Queue Delay	13.4	8.6	0.6	25.7	25.7	0.0
Total Delay	70.0	69.7	3.9	319.0	319.5	47.3
Queue Length 50th (ft)	~430	162	54	~585	~587	168
Queue Length 95th (ft)	#594	m157	m56	#808	#810	#316
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1291	506	2412	359	360	408
Starvation Cap Reductn	0	13	685	0	0	0
Spillback Cap Reductn	53	0	0	276	277	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.05	0.74	6.71	6.73	0.82

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	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	156	1685	1194	858	284	287	828
v/c Ratio	1.03	1.03	1.00	1.00	0.39	0.39	1.14
Control Delay	89.3	53.6	63.9	48.9	23.4	23.4	108.2
Queue Delay	0.0	31.1	13.6	0.0	0.0	0.0	0.0
Total Delay	89.3	84.6	77.5	48.9	23.4	23.4	108.2
Queue Length 50th (ft)	~118	~698	~443	~342	141	143	~656
Queue Length 95th (ft)	m115	m520	#598	#633	215	217	#897
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	152	1640	1190	854	725	728	725
Starvation Cap Reductn	0	773	0	0	0	0	0
Spillback Cap Reductn	0	0	49	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	1.94	1.05	1.00	0.39	0.39	1.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	77.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2495	237	31	1737	0	27	0	53	0	0	0
Future Vol, veh/h	0	2495	237	31	1737	0	27	0	53	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	125	-	-	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2546	242	32	1772	0	28	0	54	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1772	0	0	2788	0	0	3617	4503	1394
Stage 1	-	-	-	-	-	-	2667	2667	-
Stage 2	-	-	-	-	-	-	950	1836	-
Critical Hdwy	4.14	-	-	4.14	-	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	347	-	-	138	-	-	~ 4	1	131
Stage 1	-	-	-	-	-	-	38	46	-
Stage 2	-	-	-	-	-	-	336	125	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	347	-	-	138	-	-	~ 3	0	131
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 3	0	-
Stage 1	-	-	-	-	-	-	38	0	-
Stage 2	-	-	-	-	-	-	258	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	$ 4441.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	9	347	-	-	138	-	-
HCM Lane V/C Ratio	9.07	-	-	-	0.229	-	-
HCM Control Delay (s)	$ 4441.1	0	-	-	38.7	-	-
HCM Lane LOS	F	A	-	-	E	-	-
HCM 95th %tile Q(veh)	11.7	0	-	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

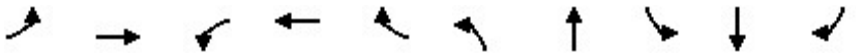


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	231	2033	69	1831	37	107	81	40	44	132
v/c Ratio	1.28	0.82	0.63	0.78	0.05	1.04	0.24	0.11	0.46	0.37
Control Delay	198.8	25.6	71.3	25.9	0.1	144.5	34.2	0.6	62.1	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	198.8	25.6	71.3	25.9	0.1	144.5	34.2	0.6	62.1	13.8
Queue Length 50th (ft)	~157	312	38	283	0	60	42	0	24	18
Queue Length 95th (ft)	#416	#720	#139	#631	0	#223	79	0	#90	61
Internal Link Dist (ft)		610		4020			2364			2550
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	180	2467	109	2342	789	103	864	795	96	825
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	1.28	0.82	0.63	0.78	0.05	1.04	0.09	0.05	0.46	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	293	1785	57	1784	145	36	170	74	93	149
v/c Ratio	1.03	0.67	0.50	0.87	0.19	0.33	0.30	0.69	0.14	0.34
Control Delay	103.7	20.9	62.0	33.1	2.9	55.1	22.7	77.9	33.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.7	20.9	62.0	33.1	2.9	55.1	22.7	77.9	33.5	5.7
Queue Length 50th (ft)	171	265	32	327	0	20	30	43	26	0
Queue Length 95th (ft)	#460	524	#103	#654	28	63	56	#153	46	35
Internal Link Dist (ft)		4020		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	284	2648	120	2060	746	118	1401	108	1411	733
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	1.03	0.67	0.47	0.87	0.19	0.31	0.12	0.69	0.07	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	533	1144	159	158	1597	234	720	83	358	409	372
v/c Ratio	1.04	0.74	0.26	0.38	1.14	0.82	0.63	0.13	1.43	0.37	0.50
Control Delay	99.2	40.1	4.0	53.3	111.6	76.7	37.6	0.4	253.3	33.3	5.7
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	99.2	40.1	4.0	53.3	111.6	76.7	37.6	0.4	253.3	33.3	5.7
Queue Length 50th (ft)	~228	291	0	58	~525	93	248	0	~192	129	2
Queue Length 95th (ft)	#340	312	36	#114	#623	#159	315	0	#290	175	72
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	514	1877	695	419	1400	286	1141	625	251	1105	748
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	1.04	0.61	0.23	0.38	1.14	0.82	0.63	0.13	1.43	0.37	0.50

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.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	265	1320	71	146	1808	586	84	396	215	150	72
v/c Ratio	2.45	0.82	0.12	0.82	1.00	0.71	0.78	0.84	0.94	0.25	0.12
Control Delay	699.7	39.3	0.4	82.8	57.1	13.3	92.4	47.0	94.4	26.4	1.6
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	699.7	39.3	0.4	82.8	57.1	13.3	92.4	47.0	94.4	26.4	1.6
Queue Length 50th (ft)	~291	294	0	96	~436	72	56	218	143	73	0
Queue Length 95th (ft)	#509	#444	0	#237	#675	246	#161	329	#334	121	10
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	108	1604	595	177	1800	830	108	729	228	889	803
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	2.45	0.82	0.12	0.82	1.00	0.71	0.78	0.54	0.94	0.17	0.09

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.

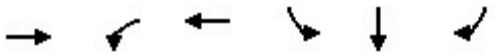


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	388	1184	215	20	1639	364	476	562	292	285	477
v/c Ratio	0.88	0.50	0.25	0.24	1.37	0.55	0.92	0.54	0.84	0.33	0.89
Control Delay	72.7	23.6	3.8	61.8	203.4	18.2	73.4	35.9	73.6	36.7	44.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.7	23.6	3.8	61.8	203.4	18.2	73.4	35.9	73.6	36.7	44.1
Queue Length 50th (ft)	155	220	0	15	~902	105	191	183	116	92	213
Queue Length 95th (ft)	#244	305	47	42	#1042	205	#296	239	#192	131	#395
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	447	2385	856	85	1198	663	518	1166	351	1001	590
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	0.87	0.50	0.25	0.24	1.37	0.55	0.92	0.48	0.83	0.28	0.81

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.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1828	647	1172	511	511	177
v/c Ratio	1.35	1.43	0.49	1.40	1.40	0.41
Control Delay	190.0	228.3	2.9	230.1	230.1	17.9
Queue Delay	0.1	0.0	0.4	66.8	66.8	0.0
Total Delay	190.1	228.3	3.3	296.9	296.9	17.9
Queue Length 50th (ft)	~864	~570	41	~509	~509	38
Queue Length 95th (ft)	#1005	m#576	m43	#727	#727	103
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1356	452	2400	365	365	430
Starvation Cap Reductn	0	0	674	0	0	0
Spillback Cap Reductn	44	0	0	338	338	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.39	1.43	0.68	18.93	18.93	0.41

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	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	323	1863	1227	1089	280	284	585
v/c Ratio	1.34	0.99	0.98	1.14	0.46	0.46	0.94
Control Delay	189.7	40.4	56.4	90.9	29.2	29.3	54.1
Queue Delay	0.0	41.3	40.4	0.0	0.0	0.0	0.0
Total Delay	189.7	81.7	96.8	90.9	29.2	29.3	54.1
Queue Length 50th (ft)	~315	~728	445	~599	153	155	347
Queue Length 95th (ft)	m#189	m520	#600	#855	234	238	#572
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	241	1882	1254	958	634	636	643
Starvation Cap Reductn	0	933	0	0	0	0	0
Spillback Cap Reductn	0	0	209	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.34	1.96	1.17	1.14	0.44	0.45	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	60.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2308	191	34	1590	0	32	0	25	0	0	0
Future Vol, veh/h	0	2308	191	34	1590	0	32	0	25	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	125	-	-	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2429	201	36	1674	0	34	0	26	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1674	0	0	2630	0	0	3439	4276	1315
Stage 1	-	-	-	-	-	-	2530	2530	-
Stage 2	-	-	-	-	-	-	909	1746	-
Critical Hdwy	4.14	-	-	4.14	-	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	379	-	-	159	-	-	~ 5	2	148
Stage 1	-	-	-	-	-	-	46	55	-
Stage 2	-	-	-	-	-	-	353	139	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	379	-	-	159	-	-	~ 4	0	148
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	0	-
Stage 1	-	-	-	-	-	-	46	0	-
Stage 2	-	-	-	-	-	-	273	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	$ 4433.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	7	379	-	-	159	-	-
HCM Lane V/C Ratio	8.571	-	-	-	0.225	-	-
HCM Control Delay (s)	$ 4433.2	0	-	-	34.1	-	-
HCM Lane LOS	F	A	-	-	D	-	-
HCM 95th %tile Q(veh)	9.1	0	-	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

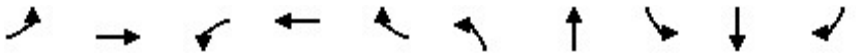


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	154	2081	39	2181	41	200	45	53	62	209
v/c Ratio	0.97	0.79	0.39	0.94	0.05	1.65	0.14	0.14	0.38	0.58
Control Delay	108.9	23.8	58.5	35.1	0.1	357.0	31.3	0.8	54.3	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.9	23.8	58.5	35.1	0.1	357.0	31.3	0.8	54.3	26.5
Queue Length 50th (ft)	87	345	22	394	0	~161	23	0	35	67
Queue Length 95th (ft)	#278	#747	#73	#823	0	#390	49	0	#130	131
Internal Link Dist (ft)		610		4020			2364			2550
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	159	2640	100	2319	783	121	873	802	164	830
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	0.97	0.79	0.39	0.94	0.05	1.65	0.05	0.07	0.38	0.25

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.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	439	1939	72	1755	227	112	375	221	197	231
v/c Ratio	1.81	0.87	0.53	0.96	0.33	0.66	0.58	1.06	0.29	0.47
Control Delay	409.9	32.6	61.3	46.5	8.8	64.0	32.2	123.9	34.7	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	409.9	32.6	61.3	46.5	8.8	64.0	32.2	123.9	34.7	7.5
Queue Length 50th (ft)	~398	389	42	368	20	65	89	~144	56	0
Queue Length 95th (ft)	#747	#741	#111	#688	94	#174	131	#376	86	55
Internal Link Dist (ft)		4020		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	242	2232	158	1821	680	190	1359	208	1415	771
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	1.81	0.87	0.46	0.96	0.33	0.59	0.28	1.06	0.14	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.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	510	1528	235	197	1678	288	622	149	494	786	393
v/c Ratio	1.20	0.95	0.37	0.66	1.18	0.98	0.58	0.25	1.20	0.66	0.54
Control Delay	156.7	54.5	8.5	64.6	127.9	102.5	38.2	4.3	157.0	37.3	10.8
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	156.7	54.5	8.5	64.6	127.9	102.5	38.2	4.3	157.0	37.3	10.8
Queue Length 50th (ft)	~240	423	20	77	~567	117	214	0	~239	272	51
Queue Length 95th (ft)	#346	#526	82	118	#665	#207	276	36	#347	342	145
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	424	1601	634	297	1418	294	1067	595	411	1188	730
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	1.20	0.95	0.37	0.66	1.18	0.98	0.58	0.25	1.20	0.66	0.54

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.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	172	2171	100	194	1763	278	103	307	415	171	99
v/c Ratio	2.02	1.32	0.17	1.56	1.00	0.41	0.96	0.76	1.21	0.27	0.16
Control Delay	528.5	180.3	1.6	325.5	57.9	10.1	129.9	44.9	158.4	25.0	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
Total Delay	528.5	180.3	1.6	325.5	57.9	10.1	129.9	44.9	158.4	25.0	3.6
Queue Length 50th (ft)	~177	~673	0	~180	418	30	69	165	~332	81	0
Queue Length 95th (ft)	#361	#954	9	#377	#687	114	#208	257	#628	130	26
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	85	1642	605	124	1755	672	107	660	342	931	848
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	2.02	1.32	0.17	1.56	1.00	0.41	0.96	0.47	1.21	0.18	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	452	1723	408	20	1447	310	238	332	336	627	503
v/c Ratio	0.79	0.71	0.43	0.22	1.34	0.53	0.66	0.38	0.75	0.65	0.77
Control Delay	54.4	26.3	4.9	58.9	191.6	20.7	57.5	34.9	57.5	38.2	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	26.3	4.9	58.9	191.6	20.7	57.5	34.9	57.5	38.2	22.1
Queue Length 50th (ft)	157	319	12	14	~715	90	84	102	118	206	128
Queue Length 95th (ft)	232	505	87	42	#960	201	136	145	#191	272	266
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	673	2429	950	93	1079	587	399	1164	496	1269	765
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.71	0.43	0.22	1.34	0.53	0.60	0.29	0.68	0.49	0.66

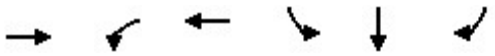
Intersection Summary

~ 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.

APPENDIX 6.5: EAPC (2026) QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1313	593	1301	618	620	334
v/c Ratio	1.10	1.14	0.55	1.59	1.59	0.78
Control Delay	89.1	90.9	3.6	307.6	308.0	43.9
Queue Delay	0.7	0.2	0.9	29.3	28.9	0.0
Total Delay	89.8	91.1	4.5	336.8	336.9	43.9
Queue Length 50th (ft)	~513	~431	58	~655	~657	171
Queue Length 95th (ft)	#652	m137	m57	#887	#889	#308
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1195	522	2348	389	390	428
Starvation Cap Reductn	0	10	694	0	0	0
Spillback Cap Reductn	52	0	0	314	314	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.15	1.16	0.79	8.24	8.16	0.78

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.



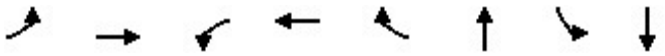
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	156	1825	1287	969	284	287	908
v/c Ratio	1.12	1.16	1.12	1.14	0.38	0.38	1.21
Control Delay	106.9	107.2	100.7	94.5	21.9	21.9	132.3
Queue Delay	0.0	2.6	0.4	0.0	0.0	0.0	0.0
Total Delay	106.9	109.8	101.0	94.5	21.9	21.9	132.3
Queue Length 50th (ft)	~127	~836	~551	~545	135	137	~756
Queue Length 95th (ft)	m105	m530	#687	#796	208	209	#1004
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	139	1576	1151	852	756	758	753
Starvation Cap Reductn	0	712	0	0	0	0	0
Spillback Cap Reductn	0	0	88	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	2.11	1.21	1.14	0.38	0.38	1.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

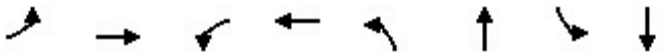


Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	300	2706	32	1719	185	101	216	273
v/c Ratio	1.02	1.21	0.30	1.00	0.23	0.31	0.77	0.51
Control Delay	104.3	122.1	57.9	52.0	8.6	19.7	55.6	10.3
Queue Delay	0.0	0.2	0.0	31.1	0.0	0.0	0.0	0.0
Total Delay	104.3	122.3	57.9	83.2	8.6	19.7	55.6	10.3
Queue Length 50th (ft)	~209	~1167	21	558	24	27	137	23
Queue Length 95th (ft)	#455	#1602	58	#914	81	71	218	90
Internal Link Dist (ft)		533		153		2377		233
Turn Bay Length (ft)	125		130					
Base Capacity (vph)	293	2235	134	1716	793	508	467	744
Starvation Cap Reductn	0	142	0	136	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	1.02	1.29	0.24	1.09	0.23	0.20	0.46	0.37

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.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	139	2683	263	1670	340	299	133	55
v/c Ratio	0.70	1.14	1.07	0.67	0.85	0.45	0.62	0.08
Control Delay	66.8	100.5	123.2	27.4	56.8	6.8	46.8	0.2
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	100.7	123.2	27.4	56.8	6.8	46.8	0.2
Queue Length 50th (ft)	98	~766	~213	314	227	12	81	0
Queue Length 95th (ft)	171	#946	#410	431	342	75	151	0
Internal Link Dist (ft)		294		330		353		252
Turn Bay Length (ft)	150		100					
Base Capacity (vph)	264	2350	246	2508	515	777	276	778
Starvation Cap Reductn	0	138	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	0.53	1.21	1.07	0.67	0.66	0.38	0.48	0.07

Intersection Summary

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95th percentile volume exceeds capacity, queue may be longer.
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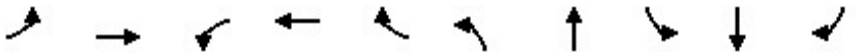


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	242	2150	69	1949	41	119	85	40	51	148
v/c Ratio	1.34	0.87	0.63	0.83	0.05	1.16	0.25	0.10	0.53	0.40
Control Delay	221.7	27.6	71.5	27.6	0.1	177.8	34.4	0.6	66.8	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	221.7	27.6	71.5	27.6	0.1	177.8	34.4	0.6	66.8	13.8
Queue Length 50th (ft)	~170	344	38	313	0	~74	44	0	28	20
Queue Length 95th (ft)	#436	#789	#139	#700	0	#247	82	0	#106	66
Internal Link Dist (ft)		215		4013			2364			122
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	180	2465	109	2340	789	103	863	794	96	831
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	1.34	0.87	0.63	0.83	0.05	1.16	0.10	0.05	0.53	0.18

Intersection Summary

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Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	304	1890	57	1885	145	49	170	74	93	161
v/c Ratio	1.15	0.72	0.50	0.89	0.19	0.42	0.30	0.67	0.16	0.40
Control Delay	140.0	21.9	62.2	34.2	2.8	57.0	22.8	74.9	35.3	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	140.0	21.9	62.2	34.2	2.8	57.0	22.8	74.9	35.3	7.6
Queue Length 50th (ft)	~204	295	33	354	0	28	30	43	26	0
Queue Length 95th (ft)	#490	#576	#102	#696	28	78	56	#158	47	44
Internal Link Dist (ft)		4013		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	265	2640	120	2108	759	132	1415	111	1378	719
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	1.15	0.72	0.47	0.89	0.19	0.37	0.12	0.67	0.07	0.22

Intersection Summary

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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	555	1192	182	158	1648	257	720	83	358	409	396
v/c Ratio	1.08	0.77	0.30	0.35	1.13	1.07	0.69	0.14	1.10	0.36	0.53
Control Delay	111.8	41.5	5.4	51.3	105.2	130.6	41.8	0.5	128.8	32.7	7.6
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	111.8	41.5	5.4	51.3	105.2	130.6	41.8	0.5	128.8	32.7	7.6
Queue Length 50th (ft)	~240	302	0	58	~536	~113	260	0	~161	127	21
Queue Length 95th (ft)	#349	347	50	95	#636	#200	330	0	#259	173	103
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	513	1686	646	448	1463	240	1038	583	326	1126	747
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	1.08	0.71	0.28	0.35	1.13	1.07	0.69	0.14	1.10	0.36	0.53

Intersection Summary

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Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	269	1357	79	146	1848	586	92	396	215	150	77
v/c Ratio	2.83	0.84	0.13	0.74	0.96	0.68	0.75	0.84	1.04	0.27	0.13
Control Delay	875.1	40.6	0.4	69.5	47.4	12.0	84.8	47.9	120.2	28.6	0.5
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	875.1	40.6	0.4	69.5	47.4	12.0	84.8	47.9	120.2	28.6	0.5
Queue Length 50th (ft)	~312	316	0	95	440	66	62	222	~156	77	0
Queue Length 95th (ft)	#532	#487	0	#208	#678	235	#169	334	#352	126	0
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	95	1622	627	224	1916	860	124	697	207	816	770
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	2.83	0.84	0.13	0.65	0.96	0.68	0.74	0.57	1.04	0.18	0.10

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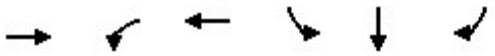


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	399	1199	226	20	1655	364	489	562	292	285	490
v/c Ratio	0.90	0.50	0.26	0.24	1.39	0.55	0.93	0.54	0.85	0.33	0.91
Control Delay	74.2	23.8	3.7	62.1	214.2	18.3	74.3	36.0	75.2	37.3	48.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.2	23.8	3.7	62.1	214.2	18.3	74.3	36.0	75.2	37.3	48.4
Queue Length 50th (ft)	159	221	0	15	~913	105	195	185	116	93	230
Queue Length 95th (ft)	#250	306	48	42	#1053	205	#300	241	#192	133	#426
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	452	2379	860	84	1188	659	529	1133	346	952	571
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	0.88	0.50	0.26	0.24	1.39	0.55	0.92	0.50	0.84	0.30	0.86

Intersection Summary

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Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1844	702	1187	560	560	177
v/c Ratio	1.39	1.53	0.50	1.50	1.50	0.41
Control Delay	209.6	270.6	3.1	269.8	269.8	18.7
Queue Delay	0.2	0.0	0.5	89.0	89.0	0.0
Total Delay	209.8	270.6	3.6	358.8	358.8	18.7
Queue Length 50th (ft)	~891	~644	43	~577	~577	42
Queue Length 95th (ft)	#1032	m#594	m44	#803	#803	106
Internal Link Dist (ft)	1367		346		1124	
Turn Bay Length (ft)		110		510		510
Base Capacity (vph)	1324	458	2380	374	374	434
Starvation Cap Reductn	0	0	686	0	0	0
Spillback Cap Reductn	59	0	0	356	356	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.46	1.53	0.70	31.11	31.11	0.41

Intersection Summary

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Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



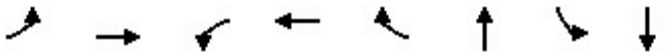
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	323	1978	1297	1172	280	284	651
v/c Ratio	1.61	1.10	1.03	1.21	0.43	0.44	0.99
Control Delay	305.5	81.2	70.2	123.4	27.5	27.6	63.7
Queue Delay	0.0	3.6	26.4	0.0	0.0	0.0	0.0
Total Delay	305.5	84.8	96.6	123.4	27.5	27.6	63.7
Queue Length 50th (ft)	~327	~841	~518	~712	150	153	413
Queue Length 95th (ft)	m#192	m530	#654	#972	230	234	#667
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	201	1801	1254	965	649	651	657
Starvation Cap Reductn	0	915	0	0	0	0	0
Spillback Cap Reductn	0	0	236	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.61	2.23	1.27	1.21	0.43	0.44	0.99

Intersection Summary

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m Volume for 95th percentile queue is metered by upstream signal.

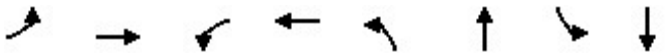


Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	260	2556	36	1623	156	77	185	222
v/c Ratio	1.18	1.11	0.40	0.86	0.18	0.27	0.65	0.49
Control Delay	156.0	76.7	63.5	28.6	6.6	25.1	46.5	14.8
Queue Delay	0.0	0.2	0.0	3.4	0.0	0.0	0.0	0.0
Total Delay	156.0	76.8	63.5	32.0	6.6	25.1	46.5	14.8
Queue Length 50th (ft)	~188	~936	22	400	14	28	108	37
Queue Length 95th (ft)	#437	#1464	#70	#801	63	65	175	99
Internal Link Dist (ft)		533		153		2377		233
Turn Bay Length (ft)	125		130					
Base Capacity (vph)	221	2310	89	1898	860	555	571	764
Starvation Cap Reductn	0	166	0	192	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	1.18	1.19	0.40	0.95	0.18	0.14	0.32	0.29

Intersection Summary

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	113	2460	154	1610	221	180	102	47
v/c Ratio	0.61	0.87	0.78	0.56	0.72	0.34	0.46	0.09
Control Delay	59.5	28.0	71.7	19.8	49.0	3.7	39.4	0.3
Queue Delay	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	31.9	71.7	19.8	49.0	3.7	39.4	0.3
Queue Length 50th (ft)	69	429	95	215	132	0	57	0
Queue Length 95th (ft)	142	#761	#243	396	209	28	105	0
Internal Link Dist (ft)		294		330		353		252
Turn Bay Length (ft)	150		100					
Base Capacity (vph)	271	2813	204	2864	568	791	415	792
Starvation Cap Reductn	0	282	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	0.42	0.97	0.75	0.56	0.39	0.23	0.25	0.06

Intersection Summary

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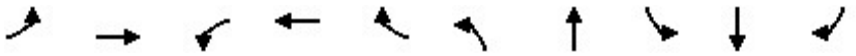


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	163	2174	39	2283	45	211	48	53	67	223
v/c Ratio	1.03	0.82	0.41	0.99	0.06	1.74	0.14	0.14	0.41	0.60
Control Delay	123.9	24.9	60.5	43.2	0.1	397.0	31.3	0.8	55.4	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.9	24.9	60.5	43.2	0.1	397.0	31.3	0.8	55.4	27.4
Queue Length 50th (ft)	94	375	22	433	0	~176	24	0	38	73
Queue Length 95th (ft)	#296	#797	#76	#881	0	#411	52	0	#141	139
Internal Link Dist (ft)		215		4013			2364			122
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	159	2639	94	2310	780	121	870	799	163	828
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	1.03	0.82	0.41	0.99	0.06	1.74	0.06	0.07	0.41	0.27

Intersection Summary

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Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	447	2019	72	1839	227	122	375	221	197	241
v/c Ratio	1.82	0.89	0.57	1.00	0.33	0.65	0.58	1.16	0.32	0.51
Control Delay	413.2	32.5	64.1	54.2	8.7	60.2	31.1	156.8	36.0	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	413.2	32.5	64.1	54.2	8.7	60.2	31.1	156.8	36.0	8.2
Queue Length 50th (ft)	~397	396	42	384	19	69	86	~152	56	0
Queue Length 95th (ft)	#750	#760	#124	#726	93	#170	128	#382	88	58
Internal Link Dist (ft)		4013		1210			851		1304	
Turn Bay Length (ft)	190		280		265	200		185		175
Base Capacity (vph)	245	2277	135	1832	683	225	1447	190	1403	773
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	1.82	0.89	0.53	1.00	0.33	0.54	0.26	1.16	0.14	0.31

Intersection Summary

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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	527	1565	252	197	1722	309	622	149	494	786	413
v/c Ratio	1.00	0.97	0.39	0.73	1.41	0.97	0.60	0.26	1.05	0.66	0.56
Control Delay	90.6	58.0	8.9	70.0	224.7	96.7	39.6	4.5	104.1	37.4	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.6	58.0	8.9	70.0	224.7	96.7	39.6	4.5	104.1	37.4	11.0
Queue Length 50th (ft)	~213	438	24	78	~654	124	218	0	~214	272	54
Queue Length 95th (ft)	#330	#546	90	#128	#752	#215	281	37	#323	343	152
Internal Link Dist (ft)		1210			2714		1200			2568	
Turn Bay Length (ft)	330		245	300		350		150	200		150
Base Capacity (vph)	526	1606	642	271	1220	320	1029	580	472	1185	739
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	1.00	0.97	0.39	0.73	1.41	0.97	0.60	0.26	1.05	0.66	0.56

Intersection Summary

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	175	2199	105	194	1796	278	109	307	415	171	102
v/c Ratio	1.94	1.32	0.17	1.62	1.03	0.42	0.95	0.76	1.25	0.27	0.17
Control Delay	487.1	178.6	1.9	347.6	62.9	10.5	123.1	44.2	171.1	25.5	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	487.1	178.6	1.9	347.6	62.9	10.5	123.1	44.2	171.1	25.5	3.9
Queue Length 50th (ft)	~175	~674	0	~181	~434	32	72	163	~335	82	0
Queue Length 95th (ft)	#362	#959	13	#377	#704	118	#213	254	#631	131	28
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	90	1667	612	120	1751	668	115	679	333	934	850
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	1.94	1.32	0.17	1.62	1.03	0.42	0.95	0.45	1.25	0.18	0.12

Intersection Summary

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Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	460	1735	416	20	1460	310	248	332	336	627	513
v/c Ratio	0.79	0.72	0.44	0.22	1.36	0.53	0.68	0.38	0.75	0.65	0.78
Control Delay	55.1	26.7	5.1	59.5	201.2	21.0	58.0	34.8	58.3	38.5	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	26.7	5.1	59.5	201.2	21.0	58.0	34.8	58.3	38.5	23.3
Queue Length 50th (ft)	161	326	14	14	~735	92	88	103	119	208	138
Queue Length 95th (ft)	236	509	90	42	#971	201	141	146	#191	274	279
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	675	2423	951	92	1071	584	409	1149	492	1239	755
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	0.68	0.72	0.44	0.22	1.36	0.53	0.61	0.29	0.68	0.51	0.68

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.

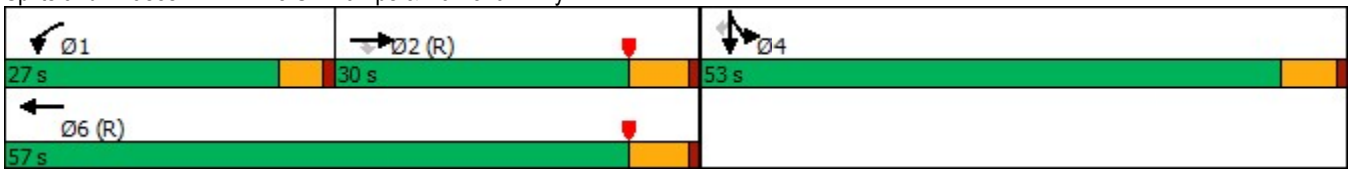
APPENDIX 6.6: EAPC (2026) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

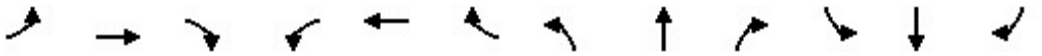
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Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	746	502	563	1236	1174	2	317
Future Volume (vph)	746	502	563	1236	1174	2	317
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	30.0	30.0	27.0	57.0	53.0	53.0	53.0
Total Split (%)	27.3%	27.3%	24.5%	51.8%	48.2%	48.2%	48.2%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	26.9	26.9	21.7	53.1	45.4	45.4	45.4
Actuated g/C Ratio	0.24	0.24	0.20	0.48	0.41	0.41	0.41
v/c Ratio	0.63	0.67	0.87	0.53	0.89	0.89	0.48
Control Delay	40.6	8.1	21.1	10.4	46.6	46.5	20.2
Queue Delay	0.0	0.0	0.0	0.4	53.0	53.0	0.0
Total Delay	40.6	8.1	21.1	10.8	99.6	99.4	20.2
LOS	D	A	C	B	F	F	C
Approach Delay	27.5			14.0		82.6	
Approach LOS	C			B		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 40.3	Intersection LOS: D
Intersection Capacity Utilization 185.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰↰	↑↑↑					↰	↲	↱
Traffic Volume (veh/h)	0	746	502	563	1236	0	0	0	0	1174	2	317
Future Volume (veh/h)	0	746	502	563	1236	0	0	0	0	1174	2	317
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	785	317	593	1301	0				1237	0	229
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1429	444	659	2611	0				1369	0	609
Arrive On Green	0.00	0.28	0.28	0.19	0.51	0.00				0.38	0.00	0.38
Sat Flow, veh/h	0	5274	1585	3456	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	785	317	593	1301	0				1237	0	229
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1728	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	14.4	19.8	18.4	18.4	0.0				36.0	0.0	11.4
Cycle Q Clear(g_c), s	0.0	14.4	19.8	18.4	18.4	0.0				36.0	0.0	11.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1429	444	659	2611	0				1369	0	609
V/C Ratio(X)	0.00	0.55	0.71	0.90	0.50	0.00				0.90	0.00	0.38
Avail Cap(c_a), veh/h	0	1429	444	707	2611	0				1538	0	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.65	0.65	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	33.7	35.7	43.5	17.6	0.0				32.0	0.0	24.4
Incr Delay (d2), s/veh	0.0	1.5	9.5	9.9	0.4	0.0				7.3	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	5.8	8.4	8.4	6.6	0.0				15.9	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.2	45.1	53.3	18.1	0.0				39.3	0.0	24.8
LnGrp LOS	A	D	D	D	B	A				D	A	C
Approach Vol, veh/h		1102			1894						1466	
Approach Delay, s/veh		38.1			29.1						37.0	
Approach LOS		D			C						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.5	36.8		47.8		62.2						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	22.5	24.0		47.5		51.0						
Max Q Clear Time (g_c+I1), s	20.4	21.8		38.0		20.4						
Green Ext Time (p_c), s	0.5	1.0		4.2		6.2						

Intersection Summary			
HCM 6th Ctrl Delay		33.9	
HCM 6th LOS		C	

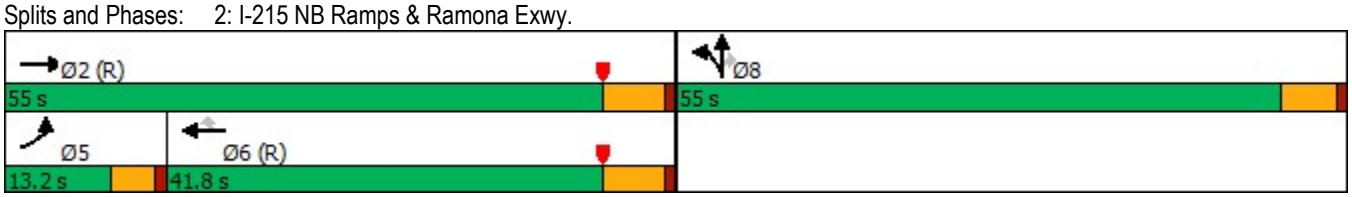
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	151	1770	1248	940	551	3	881
Future Volume (vph)	151	1770	1248	940	551	3	881
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.2	55.0	41.8	41.8	55.0	55.0	55.0
Total Split (%)	12.0%	50.0%	38.0%	38.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	8.4	49.0	36.1	36.1	49.5	49.5	49.5
Actuated g/C Ratio	0.08	0.45	0.33	0.33	0.45	0.45	0.45
v/c Ratio	0.59	0.81	0.77	0.97	0.38	0.38	1.21
Control Delay	47.4	31.5	37.2	31.9	21.9	21.9	132.3
Queue Delay	0.0	47.9	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	79.4	37.2	31.9	21.9	21.9	132.3
LOS	D	E	D	C	C	C	F
Approach Delay		76.8	34.9			89.7	
Approach LOS		E	C			F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 63.6	Intersection LOS: E
Intersection Capacity Utilization 185.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1770	0	0	1248	940	551	3	881	0	0	0
Future Volume (veh/h)	151	1770	0	0	1248	940	551	3	881	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	156	1825	0	0	1287	0	570	0	702			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	216	2275	0	0	1747		1603	0	713			
Arrive On Green	0.08	0.59	0.00	0.00	0.34	0.00	0.45	0.00	0.45			
Sat Flow, veh/h	3456	5274	0	0	5274	1585	3563	0	1585			
Grp Volume(v), veh/h	156	1825	0	0	1287	0	570	0	702			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1702	1585	1781	0	1585			
Q Serve(g_s), s	4.8	30.5	0.0	0.0	24.4	0.0	11.5	0.0	48.1			
Cycle Q Clear(g_c), s	4.8	30.5	0.0	0.0	24.4	0.0	11.5	0.0	48.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	216	2275	0	0	1747		1603	0	713			
V/C Ratio(X)	0.72	0.80	0.00	0.00	0.74		0.36	0.00	0.98			
Avail Cap(c_a), veh/h	273	2275	0	0	1747		1603	0	713			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.58	0.58	0.00	0.00	0.17	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	49.5	18.7	0.0	0.0	31.8	0.0	19.8	0.0	29.9			
Incr Delay (d2), s/veh	4.0	1.8	0.0	0.0	0.5	0.0	0.1	0.0	29.6			
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	2.1	9.0	0.0	0.0	9.4	0.0	4.5	0.0	22.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	20.5	0.0	0.0	32.3	0.0	19.9	0.0	59.5			
LnGrp LOS	D	C	A	A	C		B	A	E			
Approach Vol, veh/h		1981			1287	A		1272				
Approach Delay, s/veh		23.1			32.3			41.8				
Approach LOS		C			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.0			11.4	43.6		55.0				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		49.0			8.7	35.8		49.5				
Max Q Clear Time (g_c+I1), s		32.5			6.8	26.4		50.1				
Green Ext Time (p_c), s		7.9			0.1	3.9		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

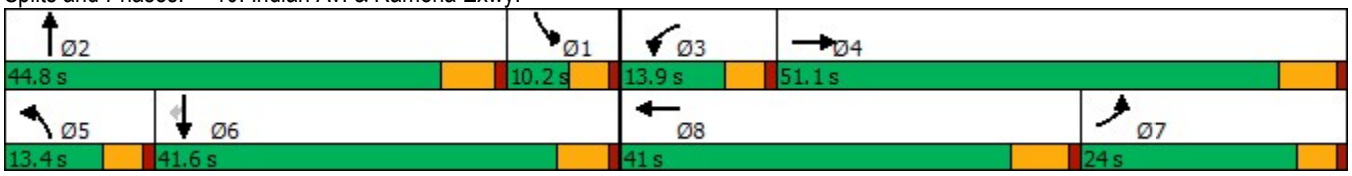
User approved volume balancing among the lanes for turning movement.

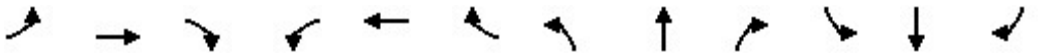
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	292	1757	55	1810	47	102	71	89	155
Future Volume (vph)	292	1757	55	1810	47	102	71	89	155
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	24.0	51.1	13.9	41.0	13.4	44.8	10.2	41.6	41.6
Total Split (%)	20.0%	42.6%	11.6%	34.2%	11.2%	37.3%	8.5%	34.7%	34.7%
Yellow Time (s)	3.6	5.2	3.6	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	19.6	49.6	7.2	35.2	6.9	14.7	6.5	16.3	16.3
Actuated g/C Ratio	0.20	0.51	0.07	0.36	0.07	0.15	0.07	0.17	0.17
v/c Ratio	0.85	0.58	0.44	0.88	0.39	0.30	0.63	0.16	0.40
Control Delay	61.9	19.8	55.8	35.6	54.9	22.9	70.1	35.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	19.8	55.8	35.6	54.9	22.9	70.1	35.8	7.7
LOS	E	B	E	D	D	C	E	D	A
Approach Delay		25.7		36.2		30.1		29.7	
Approach LOS		C		D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.4	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 30.7	Intersection LOS: C
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	1757	58	55	1810	139	47	102	61	71	89	155
Future Volume (veh/h)	292	1757	58	55	1810	139	47	102	61	71	89	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	1830	53	57	1885	119	49	106	44	74	93	136
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	339	3480	101	76	2314	146	71	281	111	95	499	223
Arrive On Green	0.19	0.54	0.54	0.04	0.37	0.37	0.04	0.11	0.11	0.05	0.14	0.14
Sat Flow, veh/h	1781	6475	188	1781	6232	393	1781	2488	983	1781	3554	1585
Grp Volume(v), veh/h	304	1364	519	57	1460	544	49	74	76	74	93	136
Grp Sat Flow(s),veh/h/ln	1781	1609	1837	1781	1609	1800	1781	1777	1693	1781	1777	1585
Q Serve(g_s), s	14.7	16.1	16.1	2.8	24.1	24.1	2.4	3.4	3.7	3.6	2.0	4.4
Cycle Q Clear(g_c), s	14.7	16.1	16.1	2.8	24.1	24.1	2.4	3.4	3.7	3.6	2.0	4.4
Prop In Lane	1.00		0.10	1.00		0.22	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	339	2593	987	76	1792	668	71	201	192	95	499	223
V/C Ratio(X)	0.90	0.53	0.53	0.75	0.81	0.81	0.69	0.37	0.40	0.78	0.19	0.61
Avail Cap(c_a), veh/h	391	2593	987	187	1900	709	177	784	747	113	1440	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	13.2	13.2	41.8	25.0	25.0	41.9	36.3	36.4	41.3	33.5	13.7
Incr Delay (d2), s/veh	19.1	0.2	0.5	5.5	2.7	6.9	4.5	1.1	1.3	20.3	0.2	2.7
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	7.7	4.8	5.6	1.3	8.6	10.4	1.1	1.5	1.5	2.1	0.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	13.4	13.7	47.3	27.7	32.0	46.4	37.4	37.7	61.7	33.7	16.4
LnGrp LOS	D	B	B	D	C	C	D	D	D	E	C	B
Approach Vol, veh/h		2187			2061			199			303	
Approach Delay, s/veh		19.1			29.4			39.7			32.8	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	15.8	8.4	53.7	8.1	18.2	23.0	39.0
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	5.6	* 39	9.3	44.9	8.8	35.8	19.4	* 35
Max Q Clear Time (g_c+I1), s	5.6	5.7	4.8	18.1	4.4	6.4	16.7	26.1
Green Ext Time (p_c), s	0.0	0.8	0.0	14.2	0.0	1.0	0.1	6.7

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

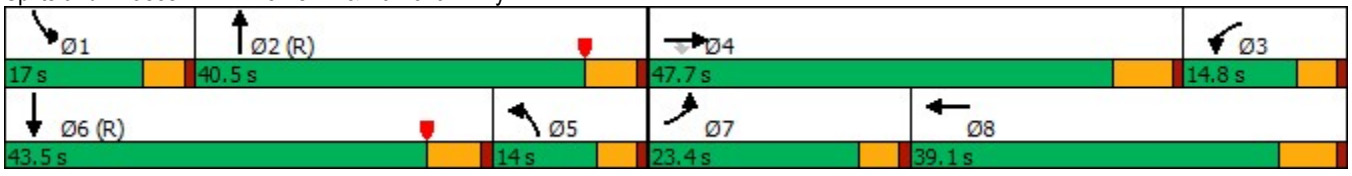
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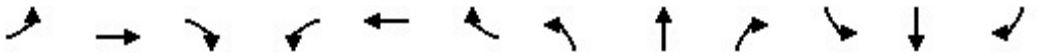
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	544	1168	178	155	1384	252	706	351	401
Future Volume (vph)	544	1168	178	155	1384	252	706	351	401
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	9.6	41.8
Total Split (s)	23.4	47.7	47.7	14.8	39.1	14.0	40.5	17.0	43.5
Total Split (%)	19.5%	39.8%	39.8%	12.3%	32.6%	11.7%	33.8%	14.2%	36.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.8	35.3	35.3	16.4	32.9	9.4	34.7	12.4	37.7
Actuated g/C Ratio	0.16	0.29	0.29	0.14	0.27	0.08	0.29	0.10	0.31
v/c Ratio	1.03	0.73	0.31	0.34	1.08	0.96	0.55	1.01	0.50
Control Delay	97.1	40.4	5.4	50.9	89.7	100.7	36.9	104.1	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.1	40.4	5.4	50.9	89.7	100.7	36.9	104.1	25.1
LOS	F	D	A	D	F	F	D	F	C
Approach Delay		53.4			86.3		52.4		49.5
Approach LOS		D			F		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38.2 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 62.4	Intersection LOS: E
Intersection Capacity Utilization 90.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	544	1168	178	155	1384	231	252	706	81	351	401	388
Future Volume (veh/h)	544	1168	178	155	1384	231	252	706	81	351	401	388
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	555	1192	100	158	1412	134	257	720	32	358	409	233
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	541	1528	432	502	1383	131	1144	2767	123	357	1069	498
Arrive On Green	0.16	0.27	0.27	0.15	0.27	0.27	0.33	0.55	0.55	0.10	0.31	0.31
Sat Flow, veh/h	3456	5611	1585	3456	5046	479	3456	5012	222	3456	3404	1585
Grp Volume(v), veh/h	555	1192	100	158	1047	499	257	488	264	358	409	233
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1784	1728	1702	1830	1728	1702	1585
Q Serve(g_s), s	18.8	23.6	5.9	4.9	32.9	32.9	6.4	9.0	9.1	12.4	11.2	14.2
Cycle Q Clear(g_c), s	18.8	23.6	5.9	4.9	32.9	32.9	6.4	9.0	9.1	12.4	11.2	14.2
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	541	1528	432	502	1026	489	1144	1879	1010	357	1069	498
V/C Ratio(X)	1.03	0.78	0.23	0.31	1.02	1.02	0.22	0.26	0.26	1.00	0.38	0.47
Avail Cap(c_a), veh/h	541	1940	548	502	1026	489	1144	1879	1010	357	1069	498
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)	0.79	0.79	0.79	0.35	0.35	0.35	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	40.3	33.9	45.9	43.5	43.6	29.0	14.1	14.1	53.8	32.1	33.1
Incr Delay (d2), s/veh	40.9	1.3	0.2	0.0	22.1	29.4	0.0	0.3	0.6	48.3	1.0	3.1
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	10.9	10.5	2.2	2.0	17.6	17.8	2.6	3.3	3.7	7.6	4.6	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.5	41.6	34.1	46.0	65.6	73.0	29.0	14.4	14.7	102.1	33.1	36.2
LnGrp LOS	F	D	C	D	F	F	C	B	B	F	C	D
Approach Vol, veh/h		1847			1704			1009			1000	
Approach Delay, s/veh		56.2			65.9			18.2			58.5	
Approach LOS		E			E			B			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	72.3	23.6	38.9	45.8	43.5	23.4	39.1
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	12.4	34.7	10.2	* 42	9.4	* 38	18.8	32.9
Max Q Clear Time (g_c+I1), s	14.4	11.1	6.9	25.6	8.4	16.2	20.8	34.9
Green Ext Time (p_c), s	0.0	4.5	0.1	7.1	0.1	3.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

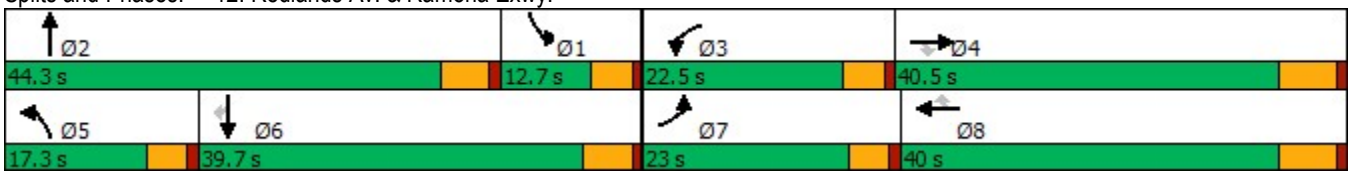
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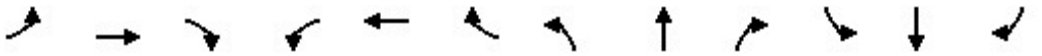
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	264	1330	77	143	1811	574	90	178	211	147	75
Future Volume (vph)	264	1330	77	143	1811	574	90	178	211	147	75
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	23.0	40.5	40.5	22.5	40.0	40.0	17.3	44.3	12.7	39.7	39.7
Total Split (%)	19.2%	33.8%	33.8%	18.8%	33.3%	33.3%	14.4%	36.9%	10.6%	33.1%	33.1%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	18.5	39.5	39.5	12.9	34.0	34.0	9.6	27.4	8.1	28.3	28.3
Actuated g/C Ratio	0.17	0.36	0.36	0.12	0.31	0.31	0.09	0.25	0.07	0.26	0.26
v/c Ratio	0.90	0.58	0.12	0.70	0.93	0.73	0.59	0.85	0.84	0.31	0.16
Control Delay	77.6	31.0	0.4	64.4	46.1	13.4	64.7	50.5	78.4	35.7	2.8
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	77.6	31.0	0.4	64.4	46.1	13.4	64.7	50.5	78.4	35.7	2.8
LOS	E	C	A	E	D	B	E	D	E	D	A
Approach Delay		37.0			39.7			53.2		50.7	
Approach LOS		D			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.9	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 41.0	Intersection LOS: D
Intersection Capacity Utilization 86.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	1330	77	143	1811	574	90	178	210	211	147	75
Future Volume (veh/h)	264	1330	77	143	1811	574	90	178	210	211	147	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	269	1357	48	146	1848	331	92	182	179	215	150	72
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	2462	594	176	2023	488	117	206	203	262	483	403
Arrive On Green	0.17	0.38	0.38	0.10	0.31	0.31	0.07	0.24	0.24	0.08	0.26	0.26
Sat Flow, veh/h	1781	6434	1552	1781	6434	1551	1781	860	845	3456	1870	1559
Grp Volume(v), veh/h	269	1357	48	146	1848	331	92	0	361	215	150	72
Grp Sat Flow(s),veh/h/ln	1781	1609	1552	1781	1609	1551	1781	0	1705	1728	1870	1559
Q Serve(g_s), s	15.8	17.6	2.1	8.6	29.5	14.5	5.4	0.0	21.8	6.5	6.9	3.8
Cycle Q Clear(g_c), s	15.8	17.6	2.1	8.6	29.5	14.5	5.4	0.0	21.8	6.5	6.9	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	298	2462	594	176	2023	488	117	0	409	262	483	403
V/C Ratio(X)	0.90	0.55	0.08	0.83	0.91	0.68	0.79	0.00	0.88	0.82	0.31	0.18
Avail Cap(c_a), veh/h	307	2462	594	299	2038	492	212	0	622	262	601	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	25.8	21.0	47.2	35.2	17.0	49.1	0.0	39.1	48.6	31.9	30.8
Incr Delay (d2), s/veh	27.0	0.3	0.1	3.8	6.8	3.7	4.4	0.0	9.5	17.2	0.4	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	8.9	6.3	0.7	3.8	11.7	5.2	2.5	0.0	9.9	3.4	3.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.6	26.0	21.0	51.0	42.0	20.7	53.6	0.0	48.6	65.8	32.3	31.0
LnGrp LOS	E	C	C	D	D	C	D	A	D	E	C	C
Approach Vol, veh/h		1674			2325			453			437	
Approach Delay, s/veh		33.0			39.6			49.6			48.5	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	31.0	15.1	47.0	11.6	32.9	22.4	39.7
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	8.1	* 39	17.9	34.3	12.7	34.3	18.4	33.8
Max Q Clear Time (g_c+I1), s	8.5	23.8	10.6	19.6	7.4	8.9	17.8	31.5
Green Ext Time (p_c), s	0.0	1.8	0.1	7.6	0.0	1.0	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

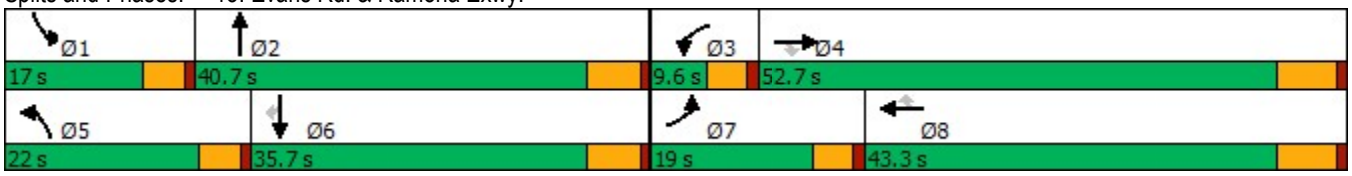
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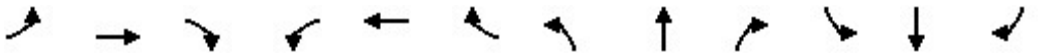
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	383	1151	217	19	1589	349	469	510	280	274	470
Future Volume (vph)	383	1151	217	19	1589	349	469	510	280	274	470
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	19.0	52.7	52.7	9.6	43.3	43.3	22.0	40.7	17.0	35.7	35.7
Total Split (%)	15.8%	43.9%	43.9%	8.0%	36.1%	36.1%	18.3%	33.9%	14.2%	29.8%	29.8%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.0	54.6	54.6	5.6	39.4	39.4	18.0	34.1	12.5	28.6	28.6
Actuated g/C Ratio	0.13	0.47	0.47	0.05	0.34	0.34	0.15	0.29	0.11	0.24	0.24
v/c Ratio	0.91	0.51	0.26	0.24	0.97	0.53	0.93	0.55	0.80	0.33	0.91
Control Delay	76.1	23.9	3.7	62.1	54.1	13.7	74.3	36.8	68.1	37.2	48.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.1	23.9	3.7	62.1	54.1	13.7	74.3	36.8	68.1	37.2	48.1
LOS	E	C	A	E	D	B	E	D	E	D	D
Approach Delay		32.8			47.0			54.3		50.6	
Approach LOS		C			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 44.6	Intersection LOS: D
Intersection Capacity Utilization 83.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	1151	217	19	1589	349	469	510	30	280	274	470
Future Volume (veh/h)	383	1151	217	19	1589	349	469	510	30	280	274	470
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	399	1199	0	20	1655	234	489	531	19	292	285	334
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	444	2242		46	1717	533	532	1026	37	364	869	387
Arrive On Green	0.13	0.44	0.00	0.03	0.34	0.34	0.15	0.29	0.29	0.11	0.24	0.24
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	3498	125	3456	3554	1585
Grp Volume(v), veh/h	399	1199	0	20	1655	234	489	269	281	292	285	334
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1846	1728	1777	1585
Q Serve(g_s), s	13.3	20.1	0.0	1.3	37.2	13.4	16.3	14.8	14.8	9.7	7.7	23.6
Cycle Q Clear(g_c), s	13.3	20.1	0.0	1.3	37.2	13.4	16.3	14.8	14.8	9.7	7.7	23.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	444	2242		46	1717	533	532	521	541	364	869	387
V/C Ratio(X)	0.90	0.53		0.44	0.96	0.44	0.92	0.52	0.52	0.80	0.33	0.86
Avail Cap(c_a), veh/h	444	2242		85	1717	533	532	558	580	384	964	430
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	24.0	0.0	56.1	38.1	30.2	48.7	34.4	34.4	51.1	36.3	42.3
Incr Delay (d2), s/veh	20.4	0.2	0.0	2.5	14.1	0.6	20.7	0.8	0.8	10.1	0.2	15.2
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	6.7	7.5	0.0	0.6	16.6	4.9	8.3	6.3	6.5	4.6	3.3	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.6	24.3	0.0	58.6	52.2	30.8	69.5	35.2	35.2	61.2	36.5	57.4
LnGrp LOS	E	C		E	D	C	E	D	D	E	D	E
Approach Vol, veh/h		1598	A		1909			1039			911	
Approach Delay, s/veh		35.8			49.6			51.3			52.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	38.3	7.0	55.3	22.0	32.6	19.0	43.3
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	12.4	34.9	5.0	46.2	17.4	29.9	14.4	36.8
Max Q Clear Time (g_c+I1), s	11.7	16.8	3.3	22.1	18.3	25.6	15.3	39.2
Green Ext Time (p_c), s	0.0	2.8	0.0	8.0	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

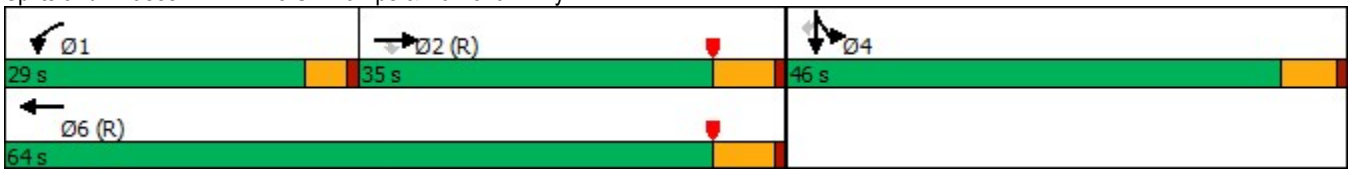
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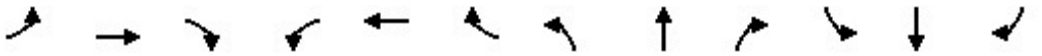
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1132	675	688	1163	1098	0	173
Future Volume (vph)	1132	675	688	1163	1098	0	173
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	35.0	35.0	29.0	64.0	46.0	46.0	46.0
Total Split (%)	31.8%	31.8%	26.4%	58.2%	41.8%	41.8%	41.8%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	30.4	30.4	24.2	59.1	39.4	39.4	39.4
Actuated g/C Ratio	0.28	0.28	0.22	0.54	0.36	0.36	0.36
v/c Ratio	0.82	0.74	0.93	0.43	0.93	0.93	0.29
Control Delay	43.5	8.2	28.6	6.3	57.9	57.9	15.4
Queue Delay	0.0	0.0	0.0	0.3	54.3	54.3	0.0
Total Delay	43.5	8.2	28.6	6.6	112.2	112.2	15.4
LOS	D	A	C	A	F	F	B
Approach Delay	30.3			14.8		99.0	
Approach LOS	C			B		F	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 42.2	Intersection LOS: D
Intersection Capacity Utilization 191.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1132	675	688	1163	0	0	0	0	1098	0	173
Future Volume (veh/h)	0	1132	675	688	1163	0	0	0	0	1098	0	173
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1155	511	702	1187	0				1120	0	135
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	2	2	2	2	0				2	2	2
Cap, veh/h	0	1497	465	757	2825	0				1219	0	543
Arrive On Green	0.00	0.29	0.29	0.22	0.55	0.00				0.34	0.00	0.34
Sat Flow, veh/h	0	5274	1585	3456	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	1155	511	702	1187	0				1120	0	135
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1728	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	22.7	32.2	21.9	14.9	0.0				33.2	0.0	6.7
Cycle Q Clear(g_c), s	0.0	22.7	32.2	21.9	14.9	0.0				33.2	0.0	6.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1497	465	757	2825	0				1219	0	543
V/C Ratio(X)	0.00	0.77	1.10	0.93	0.42	0.00				0.92	0.00	0.25
Avail Cap(c_a), veh/h	0	1497	465	770	2825	0				1312	0	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.69	0.69	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.5	38.9	42.1	14.3	0.0				34.7	0.0	26.0
Incr Delay (d2), s/veh	0.0	3.9	71.6	12.9	0.3	0.0				10.1	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	9.4	21.0	10.2	5.2	0.0				15.2	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	39.4	110.5	55.0	14.6	0.0				44.8	0.0	26.2
LnGrp LOS	A	D	F	E	B	A				D	A	C
Approach Vol, veh/h		1666			1889						1255	
Approach Delay, s/veh		61.2			29.6						42.8	
Approach LOS		E			C						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	28.6	38.2		43.2		66.8						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	24.5	29.0		40.5		58.0						
Max Q Clear Time (g_c+I1), s	23.9	34.2		35.2		16.9						
Green Ext Time (p_c), s	0.2	0.0		2.5		5.6						

Intersection Summary			
HCM 6th Ctrl Delay		44.0	
HCM 6th LOS		D	

Notes

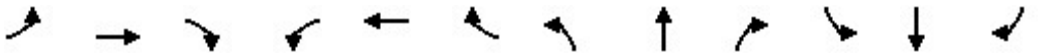
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	313	1919	1258	1137	543	4	631
Future Volume (vph)	313	1919	1258	1137	543	4	631
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	17.0	62.0	45.0	45.0	48.0	48.0	48.0
Total Split (%)	15.5%	56.4%	40.9%	40.9%	43.6%	43.6%	43.6%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	12.4	56.0	39.1	39.1	42.5	42.5	42.5
Actuated g/C Ratio	0.11	0.51	0.36	0.36	0.39	0.39	0.39
v/c Ratio	0.83	0.76	0.72	1.06	0.43	0.44	0.99
Control Delay	49.6	30.5	33.4	57.0	27.5	27.6	63.7
Queue Delay	0.0	48.2	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	78.6	33.4	57.0	27.5	27.6	63.7
LOS	D	E	C	E	C	C	E
Approach Delay		74.6	44.6			46.9	
Approach LOS		E	D			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 56.6	Intersection LOS: E
Intersection Capacity Utilization 191.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1919	0	0	1258	1137	543	4	631	0	0	0
Future Volume (veh/h)	313	1919	0	0	1258	1137	543	4	631	0	0	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	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	323	1978	0	0	1297	0	563	0	502			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	376	2813	0	0	2049		1227	0	546			
Arrive On Green	0.22	1.00	0.00	0.00	0.40	0.00	0.34	0.00	0.34			
Sat Flow, veh/h	3456	5274	0	0	5274	1585	3563	0	1585			
Grp Volume(v), veh/h	323	1978	0	0	1297	0	563	0	502			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1702	1585	1781	0	1585			
Q Serve(g_s), s	9.9	0.0	0.0	0.0	22.4	0.0	13.5	0.0	33.4			
Cycle Q Clear(g_c), s	9.9	0.0	0.0	0.0	22.4	0.0	13.5	0.0	33.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	376	2813	0	0	2049		1227	0	546			
V/C Ratio(X)	0.86	0.70	0.00	0.00	0.63		0.46	0.00	0.92			
Avail Cap(c_a), veh/h	393	2813	0	0	2049		1376	0	612			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.40	0.40	0.00	0.00	0.40	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.2	0.0	0.0	0.0	26.4	0.0	28.1	0.0	34.6			
Incr Delay (d2), s/veh	7.5	0.6	0.0	0.0	0.6	0.0	0.3	0.0	18.0			
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	0.2	0.0	0.0	8.5	0.0	5.6	0.0	14.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	0.6	0.0	0.0	27.0	0.0	28.3	0.0	52.6			
LnGrp LOS	D	A	A	A	C		C	A	D			
Approach Vol, veh/h		2301			1297	A		1065				
Approach Delay, s/veh		7.5			27.0			39.8				
Approach LOS		A			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.6			16.5	50.1		43.4				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		56.0			12.5	39.0		42.5				
Max Q Clear Time (g_c+I1), s		2.0			11.9	24.4		35.4				
Green Ext Time (p_c), s		13.1			0.1	5.0		2.5				

Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

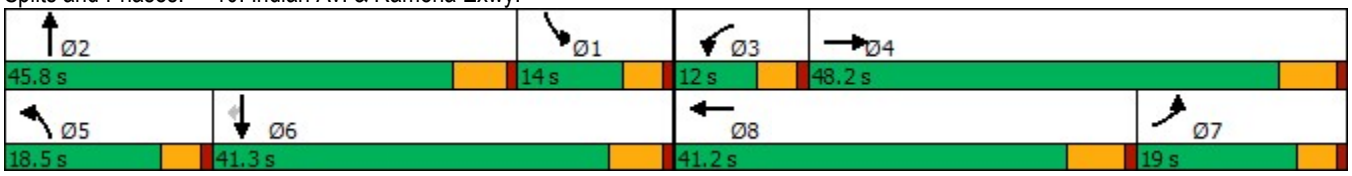
User approved volume balancing among the lanes for turning movement.

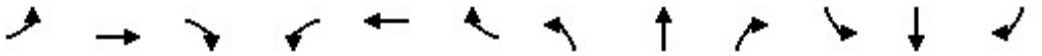
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	425	1872	68	1747	116	235	210	187	229
Future Volume (vph)	425	1872	68	1747	116	235	210	187	229
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.2	9.6	40.2	9.6	43.8	9.6	34.8	34.8
Total Split (s)	19.0	48.2	12.0	41.2	18.5	45.8	14.0	41.3	41.3
Total Split (%)	15.8%	40.2%	10.0%	34.3%	15.4%	38.2%	11.7%	34.4%	34.4%
Yellow Time (s)	3.6	5.2	3.6	5.2	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	4.6	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	14.5	45.1	7.0	35.4	10.4	17.0	9.5	16.0	16.0
Actuated g/C Ratio	0.15	0.46	0.07	0.36	0.11	0.17	0.10	0.16	0.16
v/c Ratio	1.70	0.69	0.57	0.90	0.65	0.58	1.29	0.34	0.52
Control Delay	359.4	24.4	64.3	36.6	59.6	31.3	204.5	37.5	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	359.4	24.4	64.3	36.6	59.6	31.3	204.5	37.5	8.8
LOS	F	C	E	D	E	C	F	D	A
Approach Delay		85.2		37.5		38.2		83.0	
Approach LOS		F		D		D		F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.70	
Intersection Signal Delay: 63.2	Intersection LOS: E
Intersection Capacity Utilization 92.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 10: Indian Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	1872	46	68	1747	216	116	235	122	210	187	229
Future Volume (veh/h)	425	1872	46	68	1747	216	116	235	122	210	187	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	447	1971	27	72	1839	122	122	247	75	221	197	136
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	3123	43	93	2194	146	153	353	105	181	567	253
Arrive On Green	0.16	0.71	0.47	0.05	0.53	0.35	0.09	0.13	0.13	0.10	0.16	0.16
Sat Flow, veh/h	1781	6588	90	1781	6210	412	1781	2701	802	1781	3554	1585
Grp Volume(v), veh/h	447	1444	554	72	1429	532	122	161	161	221	197	136
Grp Sat Flow(s),veh/h/ln	1781	1609	1853	1781	1609	1796	1781	1777	1726	1781	1777	1585
Q Serve(g_s), s	14.4	14.5	14.9	3.7	23.2	23.8	6.2	8.0	8.3	9.4	4.6	4.8
Cycle Q Clear(g_c), s	14.4	14.5	14.9	3.7	23.2	23.8	6.2	8.0	8.3	9.4	4.6	4.8
Prop In Lane	1.00		0.05	1.00		0.23	1.00		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	277	2287	878	93	1705	635	153	232	226	181	567	253
V/C Ratio(X)	1.61	0.63	0.63	0.78	0.84	0.84	0.80	0.69	0.72	1.22	0.35	0.54
Avail Cap(c_a), veh/h	277	2287	878	142	1823	679	267	767	745	181	1362	607
HCM Platoon Ratio	1.00	1.50	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	9.1	9.6	43.4	19.5	21.4	41.6	38.5	38.6	41.6	34.6	15.6
Incr Delay (d2), s/veh	292.7	0.6	1.5	5.9	3.5	8.7	3.6	3.6	4.2	139.6	0.4	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	28.4	3.2	4.1	1.7	6.2	8.7	2.8	3.6	3.6	11.0	1.9	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	331.8	9.7	11.0	49.3	23.0	30.0	45.2	42.1	42.8	181.2	35.0	17.4
LnGrp LOS	F	A	B	D	C	C	D	D	D	F	D	B
Approach Vol, veh/h		2445			2033			444			554	
Approach Delay, s/veh		68.9			25.8			43.2			89.0	
Approach LOS		E			C			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	17.9	9.4	50.1	12.5	20.6	20.6	38.9
Change Period (Y+Rc), s	5.8	* 5.8	4.6	6.2	4.6	5.8	6.2	* 6.2
Max Green Setting (Gmax), s	9.4	* 40	7.4	42.0	13.9	35.5	14.4	* 35
Max Q Clear Time (g_c+I1), s	11.4	10.3	5.7	16.9	8.2	6.8	16.4	25.8
Green Ext Time (p_c), s	0.0	1.8	0.0	14.6	0.1	1.6	0.0	7.0

Intersection Summary	
HCM 6th Ctrl Delay	52.8
HCM 6th LOS	D

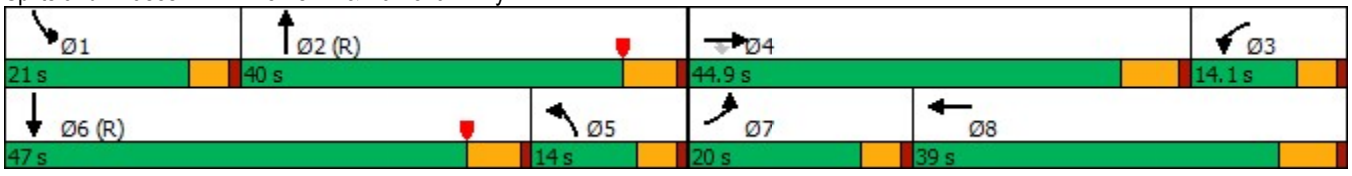
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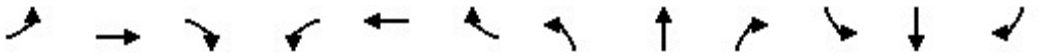
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	495	1471	237	185	1358	290	585	464	739
Future Volume (vph)	495	1471	237	185	1358	290	585	464	739
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	38.8	9.6	41.8
Total Split (s)	20.0	44.9	44.9	14.1	39.0	14.0	40.0	21.0	47.0
Total Split (%)	16.7%	37.4%	37.4%	11.8%	32.5%	11.7%	33.3%	17.5%	39.2%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.4	38.4	38.4	9.8	32.8	9.4	34.2	16.4	41.2
Actuated g/C Ratio	0.13	0.32	0.32	0.08	0.27	0.08	0.28	0.14	0.34
v/c Ratio	1.20	0.87	0.39	0.71	1.14	1.15	0.54	1.05	0.69
Control Delay	153.9	45.0	8.4	68.4	109.1	151.3	35.5	106.0	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	153.9	45.0	8.4	68.4	109.1	151.3	35.5	106.0	32.8
LOS	F	D	A	E	F	F	D	F	C
Approach Delay		65.6			104.9		68.6		54.1
Approach LOS		E			F		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 74.0	Intersection LOS: E
Intersection Capacity Utilization 95.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: Perris Bl. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	495	1471	237	185	1358	260	290	585	140	464	739	388
Future Volume (veh/h)	495	1471	237	185	1358	260	290	585	140	464	739	388
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	527	1565	128	197	1445	139	309	622	75	494	786	207
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	443	1738	491	271	1376	132	1141	2528	302	472	1384	361
Arrive On Green	0.19	0.46	0.46	0.12	0.41	0.41	0.50	0.82	0.82	0.20	0.51	0.51
Sat Flow, veh/h	3456	5611	1585	3456	5033	484	3456	4624	552	3456	4032	1053
Grp Volume(v), veh/h	527	1565	128	197	1074	510	309	456	241	494	662	331
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1776	1728	1702	1771	1728	1702	1681
Q Serve(g_s), s	15.4	30.8	5.9	6.6	32.8	32.8	6.3	3.6	3.7	16.4	16.0	16.2
Cycle Q Clear(g_c), s	15.4	30.8	5.9	6.6	32.8	32.8	6.3	3.6	3.7	16.4	16.0	16.2
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.31	1.00		0.63
Lane Grp Cap(c), veh/h	443	1738	491	271	1022	485	1141	1861	968	472	1169	577
V/C Ratio(X)	1.19	0.90	0.26	0.73	1.05	1.05	0.27	0.25	0.25	1.05	0.57	0.57
Avail Cap(c_a), veh/h	443	1810	511	274	1022	485	1141	1861	968	472	1169	577
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	0.58	0.58	0.58	0.52	0.52	0.52	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	30.4	23.8	51.7	35.4	35.4	21.9	5.2	5.2	47.7	23.0	23.0
Incr Delay (d2), s/veh	97.6	3.9	0.2	4.3	35.0	43.7	0.0	0.3	0.6	53.9	2.0	4.1
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	11.9	11.5	2.1	2.8	17.1	17.4	2.3	1.2	1.3	9.8	5.5	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	146.1	34.3	23.9	56.0	70.4	79.1	21.9	5.5	5.8	101.6	25.0	27.1
LnGrp LOS	F	C	C	E	F	F	C	A	A	F	C	C
Approach Vol, veh/h		2220			1781			1006			1487	
Approach Delay, s/veh		60.3			71.3			10.6			50.9	
Approach LOS		E			E			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	71.6	15.6	43.4	45.6	47.0	20.0	39.0
Change Period (Y+Rc), s	4.6	5.8	6.2	* 6.2	5.8	* 5.8	4.6	6.2
Max Green Setting (Gmax), s	16.4	34.2	9.5	* 39	9.4	* 41	15.4	32.8
Max Q Clear Time (g_c+I1), s	18.4	5.7	8.6	32.8	8.3	18.2	17.4	34.8
Green Ext Time (p_c), s	0.0	4.4	0.0	4.4	0.1	6.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.5
HCM 6th LOS	D

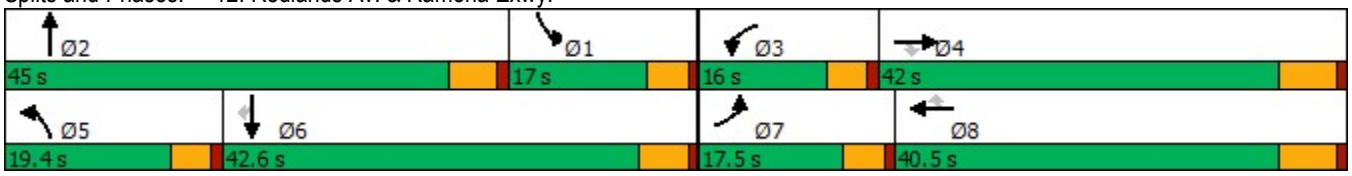
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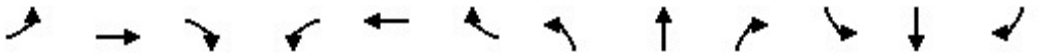
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	168	2111	101	186	1724	267	105	144	398	164	98
Future Volume (vph)	168	2111	101	186	1724	267	105	144	398	164	98
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	24.2	24.2	9.6	27.2	27.2	9.6	43.4	9.6	23.4	23.4
Total Split (s)	17.5	42.0	42.0	16.0	40.5	40.5	19.4	45.0	17.0	42.6	42.6
Total Split (%)	14.6%	35.0%	35.0%	13.3%	33.8%	33.8%	16.2%	37.5%	14.2%	35.5%	35.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	12.7	36.0	36.0	11.5	34.8	34.8	10.4	22.1	12.5	24.2	24.2
Actuated g/C Ratio	0.12	0.35	0.35	0.11	0.34	0.34	0.10	0.21	0.12	0.23	0.23
v/c Ratio	0.81	0.98	0.16	0.98	0.83	0.40	0.61	0.76	1.00	0.39	0.22
Control Delay	72.8	49.4	1.8	109.1	36.5	6.9	60.5	43.8	90.9	36.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.8	49.4	1.8	109.1	36.5	6.9	60.5	43.8	90.9	36.1	6.0
LOS	E	D	A	F	D	A	E	D	F	D	A
Approach Delay		49.0			39.1			48.2		64.7	
Approach LOS		D			D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 47.0	Intersection LOS: D
Intersection Capacity Utilization 86.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: Redlands Av. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	2111	101	186	1724	267	105	144	151	398	164	98
Future Volume (veh/h)	168	2111	101	186	1724	267	105	144	151	398	164	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	2199	70	194	1796	148	109	150	115	415	171	93
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	2318	559	205	2311	557	137	179	137	432	446	378
Arrive On Green	0.12	0.36	0.36	0.11	0.36	0.36	0.08	0.18	0.18	0.12	0.24	0.24
Sat Flow, veh/h	1781	6434	1552	1781	6434	1552	1781	982	753	3456	1870	1585
Grp Volume(v), veh/h	175	2199	70	194	1796	148	109	0	265	415	171	93
Grp Sat Flow(s),veh/h/ln	1781	1609	1552	1781	1609	1552	1781	0	1735	1728	1870	1585
Q Serve(g_s), s	9.6	33.0	3.0	10.7	24.6	4.2	6.0	0.0	14.6	11.9	7.6	4.7
Cycle Q Clear(g_c), s	9.6	33.0	3.0	10.7	24.6	4.2	6.0	0.0	14.6	11.9	7.6	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	206	2318	559	205	2311	557	137	0	316	432	446	378
V/C Ratio(X)	0.85	0.95	0.13	0.95	0.78	0.27	0.80	0.00	0.84	0.96	0.38	0.25
Avail Cap(c_a), veh/h	232	2321	560	205	2311	557	266	0	692	432	701	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	30.9	21.3	43.6	28.3	8.7	45.0	0.0	39.2	43.2	31.7	30.6
Incr Delay (d2), s/veh	20.6	9.4	0.1	47.7	1.7	0.3	3.9	0.0	5.9	33.1	0.5	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	5.2	13.1	1.0	7.2	8.9	2.2	2.7	0.0	6.5	6.9	3.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	40.2	21.4	91.4	30.0	9.0	49.0	0.0	45.0	76.3	32.2	30.9
LnGrp LOS	E	D	C	F	C	A	D	A	D	E	C	C
Approach Vol, veh/h		2444			2138			374			679	
Approach Delay, s/veh		41.4			34.1			46.2			59.0	
Approach LOS		D			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	23.5	16.0	41.9	12.2	29.1	16.1	41.8
Change Period (Y+Rc), s	5.4	* 5.4	4.6	6.2	4.6	5.4	4.6	6.2
Max Green Setting (Gmax), s	12.4	* 40	11.4	35.8	14.8	37.2	12.9	34.3
Max Q Clear Time (g_c+I1), s	13.9	16.6	12.7	35.0	8.0	9.6	11.6	26.6
Green Ext Time (p_c), s	0.0	1.5	0.0	0.8	0.1	1.2	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

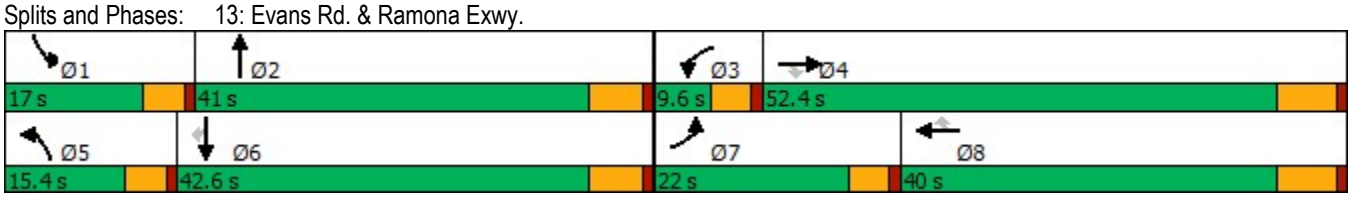
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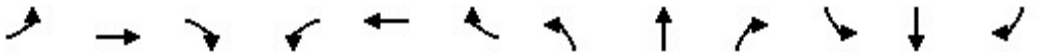
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	451	1700	408	20	1431	304	243	313	329	614	503
Future Volume (vph)	451	1700	408	20	1431	304	243	313	329	614	503
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.5	33.5	9.6	36.5	36.5	9.6	38.8	9.6	34.8	34.8
Total Split (s)	22.0	52.4	52.4	9.6	40.0	40.0	15.4	41.0	17.0	42.6	42.6
Total Split (%)	18.3%	43.7%	43.7%	8.0%	33.3%	33.3%	12.8%	34.2%	14.2%	35.5%	35.5%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.5	-2.5	-0.6	-2.5	-2.5	-0.6	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	17.4	54.1	54.1	5.6	36.2	36.2	11.0	29.1	12.9	31.1	31.1
Actuated g/C Ratio	0.16	0.48	0.48	0.05	0.32	0.32	0.10	0.26	0.12	0.28	0.28
v/c Ratio	0.86	0.71	0.44	0.22	0.89	0.47	0.74	0.36	0.85	0.64	0.83
Control Delay	63.8	26.6	6.1	60.5	44.6	12.2	64.1	34.1	69.8	38.4	30.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.8	26.6	6.1	60.5	44.6	12.2	64.1	34.1	69.8	38.4	30.9
LOS	E	C	A	E	D	B	E	C	E	D	C
Approach Delay		29.9			39.2			46.9		42.9	
Approach LOS		C			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 111.8	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 37.0	Intersection LOS: D
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: Evans Rd. & Ramona Exwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	451	1700	408	20	1431	304	243	313	13	329	614	503
Future Volume (veh/h)	451	1700	408	20	1431	304	243	313	13	329	614	503
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	460	1735	0	20	1460	232	248	319	10	336	627	385
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	532	2278		46	1625	504	323	952	30	398	1040	464
Arrive On Green	0.15	0.45	0.00	0.03	0.32	0.32	0.09	0.27	0.27	0.12	0.29	0.29
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	3517	110	3456	3554	1585
Grp Volume(v), veh/h	460	1735	0	20	1460	232	248	161	168	336	627	385
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1851	1728	1777	1585
Q Serve(g_s), s	14.6	32.1	0.0	1.2	30.8	13.2	7.9	8.2	8.2	10.7	17.1	25.6
Cycle Q Clear(g_c), s	14.6	32.1	0.0	1.2	30.8	13.2	7.9	8.2	8.2	10.7	17.1	25.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	532	2278		46	1625	504	323	481	501	398	1040	464
V/C Ratio(X)	0.87	0.76		0.43	0.90	0.46	0.77	0.33	0.34	0.84	0.60	0.83
Avail Cap(c_a), veh/h	552	2278		88	1630	506	349	583	607	398	1217	543
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	26.2	0.0	54.1	36.7	30.7	49.9	33.0	33.0	48.9	34.3	37.3
Incr Delay (d2), s/veh	12.5	1.6	0.0	2.4	7.1	0.7	8.0	0.4	0.4	14.4	0.6	9.2
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	12.0	0.0	0.6	12.9	4.8	3.7	3.5	3.6	5.3	7.2	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	27.8	0.0	56.4	43.8	31.4	57.9	33.4	33.4	63.2	34.9	46.5
LnGrp LOS	E	C		E	D	C	E	C	C	E	C	D
Approach Vol, veh/h		2195	A		1712			577			1348	
Approach Delay, s/veh		34.3			42.3			43.9			45.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	34.5	6.9	54.3	14.5	37.0	21.3	39.9
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	12.4	35.2	5.0	45.9	10.8	36.8	17.4	33.5
Max Q Clear Time (g_c+I1), s	12.7	10.2	3.2	34.1	9.9	27.6	16.6	32.8
Green Ext Time (p_c), s	0.0	1.7	0.0	7.9	0.0	3.6	0.1	0.6

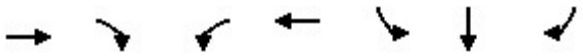
Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.7: EAPC (2026) QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	785	528	593	1301	618	620	334
v/c Ratio	0.63	0.67	0.87	0.53	0.89	0.89	0.48
Control Delay	40.6	8.1	21.1	10.4	46.6	46.5	20.2
Queue Delay	0.0	0.0	0.0	0.4	53.0	53.0	0.0
Total Delay	40.6	8.1	21.1	10.8	99.6	99.4	20.2
Queue Length 50th (ft)	189	0	172	201	404	405	126
Queue Length 95th (ft)	236	99	179	187	#626	#628	206
Internal Link Dist (ft)	1367			346		1124	
Turn Bay Length (ft)			110		510		510
Base Capacity (vph)	1242	786	702	2455	725	728	725
Starvation Cap Reductn	0	0	0	603	0	0	0
Spillback Cap Reductn	0	0	0	0	335	336	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.67	0.84	0.70	1.58	1.58	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

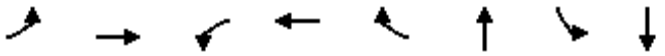


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	156	1825	1287	969	284	287	908
v/c Ratio	0.59	0.81	0.77	0.97	0.38	0.38	1.21
Control Delay	47.4	31.5	37.2	31.9	21.9	21.9	132.3
Queue Delay	0.0	47.9	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	79.4	37.2	31.9	21.9	21.9	132.3
Queue Length 50th (ft)	60	511	298	229	135	137	~756
Queue Length 95th (ft)	94	562	356	#570	208	209	#1004
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	271	2265	1666	1002	756	758	753
Starvation Cap Reductn	0	853	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	0.58	1.29	0.77	0.97	0.38	0.38	1.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	300	2706	32	1719	185	101	216	273
v/c Ratio	0.83	0.82	0.30	0.77	0.26	0.29	0.73	0.48
Control Delay	57.2	21.5	56.7	30.8	8.4	18.2	49.7	7.9
Queue Delay	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	23.4	56.7	30.8	8.4	18.2	49.7	7.9
Queue Length 50th (ft)	187	469	20	306	14	25	131	9
Queue Length 95th (ft)	307	#800	57	#569	78	67	211	70
Internal Link Dist (ft)		533		153		2377		233
Turn Bay Length (ft)	125		130					
Base Capacity (vph)	543	3282	118	2240	723	601	548	837
Starvation Cap Reductn	0	399	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	0.55	0.94	0.27	0.77	0.26	0.17	0.39	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	242	2150	69	1949	41	119	85	40	51	148
v/c Ratio	1.34	0.87	0.63	0.83	0.05	1.16	0.25	0.10	0.53	0.40
Control Delay	221.7	27.6	71.5	27.6	0.1	177.8	34.4	0.6	66.8	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	221.7	27.6	71.5	27.6	0.1	177.8	34.4	0.6	66.8	13.8
Queue Length 50th (ft)	~170	344	38	313	0	~74	44	0	28	20
Queue Length 95th (ft)	#436	#789	#139	#700	0	#247	82	0	#106	66
Internal Link Dist (ft)		215		4013			2364			122
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	180	2465	109	2340	789	103	863	794	96	831
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	1.34	0.87	0.63	0.83	0.05	1.16	0.10	0.05	0.53	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

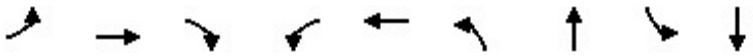
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	304	1890	57	2030	49	170	74	93	161
v/c Ratio	0.85	0.58	0.44	0.88	0.39	0.30	0.63	0.16	0.40
Control Delay	61.9	19.8	55.8	35.6	54.9	22.9	70.1	35.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	19.8	55.8	35.6	54.9	22.9	70.1	35.8	7.7
Queue Length 50th (ft)	171	213	32	308	28	30	43	26	0
Queue Length 95th (ft)	#434	415	87	#586	77	56	#152	48	45
Internal Link Dist (ft)		4013		1210		851		1304	
Turn Bay Length (ft)	190		280		200		185		175
Base Capacity (vph)	356	3248	170	2297	161	1389	118	1314	694
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	0.85	0.58	0.34	0.88	0.30	0.12	0.63	0.07	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	555	1192	182	158	1648	257	803	358	805
v/c Ratio	1.03	0.73	0.31	0.34	1.08	0.96	0.55	1.01	0.50
Control Delay	97.1	40.4	5.4	50.9	89.7	100.7	36.9	104.1	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.1	40.4	5.4	50.9	89.7	100.7	36.9	104.1	25.1
Queue Length 50th (ft)	~237	275	0	58	~471	104	188	~146	134
Queue Length 95th (ft)	#350	299	49	97	#561	#188	232	#247	176
Internal Link Dist (ft)		1210			2714		1200		2568
Turn Bay Length (ft)	330		245	300		350		200	
Base Capacity (vph)	537	1932	666	468	1522	268	1459	354	1626
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	1.03	0.62	0.27	0.34	1.08	0.96	0.55	1.01	0.50

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.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	269	1357	79	146	1848	586	92	396	215	150	77
v/c Ratio	0.90	0.58	0.12	0.70	0.93	0.73	0.59	0.85	0.84	0.31	0.16
Control Delay	77.6	31.0	0.4	64.4	46.1	13.4	64.7	50.5	78.4	35.7	2.8
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	77.6	31.0	0.4	64.4	46.1	13.4	64.7	50.5	78.4	35.7	2.8
Queue Length 50th (ft)	185	220	0	99	361	59	62	231	77	87	0
Queue Length 95th (ft)	#386	320	0	176	#519	227	124	346	#162	148	15
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	300	2325	661	292	1997	808	207	643	256	589	570
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	0.90	0.58	0.12	0.50	0.93	0.73	0.44	0.62	0.84	0.25	0.14

Intersection Summary

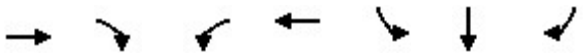
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	399	1199	226	20	1655	364	489	562	292	285	490
v/c Ratio	0.91	0.51	0.26	0.24	0.97	0.53	0.93	0.55	0.80	0.33	0.91
Control Delay	76.1	23.9	3.7	62.1	54.1	13.7	74.3	36.8	68.1	37.2	48.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.1	23.9	3.7	62.1	54.1	13.7	74.3	36.8	68.1	37.2	48.1
Queue Length 50th (ft)	159	222	0	15	466	70	195	187	115	93	229
Queue Length 95th (ft)	#254	308	48	42	#582	165	#300	244	#178	133	#424
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	441	2374	859	84	1711	692	528	1105	381	960	574
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	0.90	0.51	0.26	0.24	0.97	0.53	0.93	0.51	0.77	0.30	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1155	689	702	1187	560	560	177
v/c Ratio	0.82	0.74	0.93	0.43	0.93	0.93	0.29
Control Delay	43.5	8.2	28.6	6.3	57.9	57.9	15.4
Queue Delay	0.0	0.0	0.0	0.3	54.3	54.3	0.0
Total Delay	43.5	8.2	28.6	6.6	112.2	112.2	15.4
Queue Length 50th (ft)	285	2	207	94	389	389	49
Queue Length 95th (ft)	343	114	#318	94	#613	#613	102
Internal Link Dist (ft)	1367			346		1124	
Turn Bay Length (ft)			110		510		510
Base Capacity (vph)	1407	933	764	2733	618	618	629
Starvation Cap Reductn	0	0	0	806	0	0	0
Spillback Cap Reductn	0	0	0	0	354	354	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.74	0.92	0.62	2.12	2.12	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



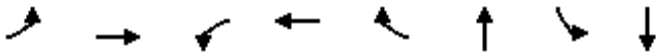
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	323	1978	1297	1172	280	284	651
v/c Ratio	0.83	0.76	0.72	1.06	0.43	0.44	0.99
Control Delay	49.6	30.5	33.4	57.0	27.5	27.6	63.7
Queue Delay	0.0	48.2	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	78.6	33.4	57.0	27.5	27.6	63.7
Queue Length 50th (ft)	124	547	288	~503	150	153	413
Queue Length 95th (ft)	m147	592	342	#763	230	234	#667
Internal Link Dist (ft)		346	533			1200	
Turn Bay Length (ft)	110			155			500
Base Capacity (vph)	390	2588	1807	1103	649	651	657
Starvation Cap Reductn	0	1171	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	0.83	1.40	0.72	1.06	0.43	0.44	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	260	2556	36	1623	156	77	185	222
v/c Ratio	0.79	0.75	0.38	0.67	0.20	0.26	0.63	0.44
Control Delay	56.7	18.0	60.4	25.5	6.0	24.2	43.8	8.1
Queue Delay	0.0	0.7	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	56.7	18.6	60.4	25.6	6.0	24.2	43.8	8.1
Queue Length 50th (ft)	151	357	22	243	5	27	106	8
Queue Length 95th (ft)	#314	#730	#68	444	54	64	172	61
Internal Link Dist (ft)		533		153		2377		233
Turn Bay Length (ft)	125		130					
Base Capacity (vph)	424	3398	96	2434	769	616	624	844
Starvation Cap Reductn	0	440	0	83	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	0.61	0.86	0.38	0.69	0.20	0.13	0.30	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	163	2174	39	2283	45	211	48	53	67	223
v/c Ratio	1.03	0.82	0.41	0.99	0.06	1.74	0.14	0.14	0.41	0.60
Control Delay	123.9	24.9	60.5	43.2	0.1	397.0	31.3	0.8	55.4	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.9	24.9	60.5	43.2	0.1	397.0	31.3	0.8	55.4	27.4
Queue Length 50th (ft)	94	375	22	433	0	~176	24	0	38	73
Queue Length 95th (ft)	#296	#797	#76	#881	0	#411	52	0	#141	139
Internal Link Dist (ft)		215		4013			2364			122
Turn Bay Length (ft)	200		200			200			130	
Base Capacity (vph)	159	2639	94	2310	780	121	870	799	163	828
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	1.03	0.82	0.41	0.99	0.06	1.74	0.06	0.07	0.41	0.27

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.

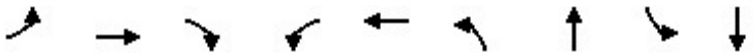


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	447	2019	72	2066	122	375	221	197	241
v/c Ratio	1.70	0.69	0.57	0.90	0.65	0.58	1.29	0.34	0.52
Control Delay	359.4	24.4	64.3	36.6	59.6	31.3	204.5	37.5	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	359.4	24.4	64.3	36.6	59.6	31.3	204.5	37.5	8.8
Queue Length 50th (ft)	~386	270	42	321	70	86	~164	57	0
Queue Length 95th (ft)	#740	468	#124	#590	154	128	#395	91	60
Internal Link Dist (ft)		4013		1210		851		1304	
Turn Bay Length (ft)	190		280		200		185		175
Base Capacity (vph)	263	2941	135	2295	254	1436	171	1297	733
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	1.70	0.69	0.53	0.90	0.48	0.26	1.29	0.15	0.33

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.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	527	1565	252	197	1722	309	771	494	1199
v/c Ratio	1.20	0.87	0.39	0.71	1.14	1.15	0.54	1.05	0.69
Control Delay	153.9	45.0	8.4	68.4	109.1	151.3	35.5	106.0	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	153.9	45.0	8.4	68.4	109.1	151.3	35.5	106.0	32.8
Queue Length 50th (ft)	~254	379	22	78	~512	~144	173	~215	263
Queue Length 95th (ft)	#365	437	87	#128	#601	#237	216	#324	317
Internal Link Dist (ft)		1210			2714		1200		2568
Turn Bay Length (ft)	330		245	300		350		200	
Base Capacity (vph)	440	1802	653	278	1516	268	1440	469	1734
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	1.20	0.87	0.39	0.71	1.14	1.15	0.54	1.05	0.69

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.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	175	2199	105	194	1796	278	109	307	415	171	102
v/c Ratio	0.81	0.98	0.16	0.98	0.83	0.40	0.61	0.76	1.00	0.39	0.22
Control Delay	72.8	49.4	1.8	109.1	36.5	6.9	60.5	43.8	90.9	36.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.8	49.4	1.8	109.1	36.5	6.9	60.5	43.8	90.9	36.1	6.0
Queue Length 50th (ft)	111	401	0	127	306	10	68	161	139	95	0
Queue Length 95th (ft)	#270	#643	12	#322	#477	80	139	252	#295	162	34
Internal Link Dist (ft)		2714			2406			1990		1262	
Turn Bay Length (ft)	315		320	300		260	290		280		
Base Capacity (vph)	222	2241	642	197	2166	693	256	693	415	676	647
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	0.79	0.98	0.16	0.98	0.83	0.40	0.43	0.44	1.00	0.25	0.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	460	1735	416	20	1460	310	248	332	336	627	513
v/c Ratio	0.86	0.71	0.44	0.22	0.89	0.47	0.74	0.36	0.85	0.64	0.83
Control Delay	63.8	26.6	6.1	60.5	44.6	12.2	64.1	34.1	69.8	38.4	30.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.8	26.6	6.1	60.5	44.6	12.2	64.1	34.1	69.8	38.4	30.9
Queue Length 50th (ft)	170	332	24	14	372	46	92	102	126	210	188
Queue Length 95th (ft)	#274	505	110	42	#508	134	#156	142	#220	270	330
Internal Link Dist (ft)		2406			1284			1088		2283	
Turn Bay Length (ft)	325		300	310		200	200		215		215
Base Capacity (vph)	556	2460	946	89	1647	663	352	1173	401	1229	713
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.71	0.44	0.22	0.89	0.47	0.70	0.28	0.84	0.51	0.72

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.