

# OAK VALLEY NORTH SPECIFIC PLAN

TRAFFIC ANALYSIS

PREPARED BY: Charlene So, PE | [cso@urbanxroads.com](mailto:cso@urbanxroads.com)  
Aric Evatt | [aevatt@urbanxroads.com](mailto:aevatt@urbanxroads.com)

## TABLE OF CONTENTS

Table of Contents .....	ii
Appendices.....	iv
List of Exhibits.....	vi
List of Tables .....	x
List of Abbreviated Terms .....	xii
<b>1 Introduction.....</b>	<b>1</b>
1.1 Project Alternatives.....	1
1.2 Analysis Scenarios.....	3
1.3 Study Area .....	5
1.4 Summary of Findings .....	5
<b>2 Methodologies .....</b>	<b>24</b>
2.1 Level of Service.....	24
2.2 Intersection Capacity Analysis.....	24
2.3 Traffic Signal Warrant Analysis Methodology .....	26
2.4 Queuing Analysis .....	27
2.5 Minimum Acceptable Levels of Service (LOS).....	28
2.6 Deficiency Criteria.....	28
2.7 Project Fair Share Calculation Methodology .....	30
<b>3 Area Conditions .....</b>	<b>31</b>
3.1 Existing Circulation Network .....	31
3.2 City of Calimesa General Plan Circulation Element .....	31
3.3 Bicycle & Pedestrian Facilities.....	31
3.4 Transit Service.....	35
3.5 Existing (2022) Traffic Counts.....	35
3.6 Intersection Operations Analysis.....	42
3.7 Traffic Signal Warrants Analysis.....	42
<b>4 Projected Future Traffic.....</b>	<b>45</b>
4.1 Project Trip Generation .....	45
4.2 Project Trip Distribution .....	51
4.3 Modal Split.....	52
4.4 Project Trip Assignment.....	52
4.5 Background Traffic.....	65
<b>5 Opening Year Cumulative (2025) Traffic Conditions.....</b>	<b>85</b>
5.1 Roadway Improvements .....	85
5.2 Opening Year Cumulative (2025) Intersection Operations Analysis.....	85
5.3 Opening Year Cumulative (2025) Traffic Signal Warrant Analysis.....	89
5.4 Opening Year Cumulative (2025) Deficiencies and Improvements .....	94



- 6 Interim Year Cumulative (2028) Traffic Conditions.....97
  - 6.1 Roadway Improvements ..... 97
  - 6.2 Interim Year Cumulative (2028) Intersection Operations Analysis..... 97
  - 6.3 Interim Year Cumulative (2028) Traffic Signal Warrants Analysis..... 108
  - 6.4 Interim Year Cumulative (2028) Deficiencies and Improvements..... 108
- 7 Horizon Year (2045) Traffic Conditions.....114
  - 7.1 Roadway Improvements ..... 114
  - 7.2 Horizon Year (2045) Intersection Operations Analysis..... 114
  - 7.3 Horizon Year (2045) Traffic Signal Warrants Analysis..... 119
  - 7.4 Horizon Year (2045) Deficiencies and Improvements ..... 125
  - 7.5 Queuing Analysis ..... 129
- 8 Local and Regional Funding Mechanisms .....131
  - 8.1 Riverside County Transportation Uniform Mitigation Fee (TUMF)..... 131
  - 8.2 City of Calimesa Development Impact Fee (DIF) Program..... 131
  - 8.3 Measure A..... 131
  - 8.4 Fair Share Contribution..... 132
- 9 Conclusion .....137
- 10 References.....140

## **APPENDICES**

Appendix 1.1: Traffic Study Scoping Agreement

Appendix 3.1: Traffic Counts – May 2022

Appendix 3.2: Existing (2022) Conditions Intersection Operations Analysis Worksheets

Appendix 3.3: Existing (2022) Conditions Traffic Signal Warrant Analysis Worksheets

Appendix 5.1: Opening Year Cumulative (2025) Without Project Conditions Intersection Operations Analysis Worksheets

Appendix 5.2: Opening Year Cumulative (2025) With Project PA 1, High-Cube Warehouse & Truck/Trailer Lot Conditions Intersection Analysis Worksheets

Appendix 5.3: Opening Year Cumulative (2025) With Project PA 1, Parcel Hube Warehouse & Truck/Trailer Lot Conditions Intersection Analysis Worksheets

Appendix 5.4: Opening Year Cumulative (2025) Traffic Signal Warrant Analysis Worksheets

Appendix 5.5: Opening Year Cumulative (2025) Without Project Conditions With Improvements Intersection Operations Analysis Worksheets

Appendix 5.6: Opening Year Cumulative (2025) With Project PA 1, High-Cube Warehouse & Truck/Trailer Lot Conditions With Improvements Intersection Analysis Worksheets

Appendix 5.7: Opening Year Cumulative (2025) With Project PA 1, Parcel Hube Warehouse & Truck/Trailer Lot Conditions With Improvements Intersection Analysis Worksheets

Appendix 6.1: Interim Year Cumulative (2028) Without Project Conditions Intersection Operations Analysis Worksheets

Appendix 6.2: Interim Year Cumulative (2028) With Project Scenario 1 Conditions Intersection Analysis Worksheets

Appendix 6.3: Interim Year Cumulative (2028) With Project Scenario 2 Conditions Intersection Analysis Worksheets

Appendix 6.4: Sunday Interim Year Cumulative (2028) With PA3 Church Conditions Intersection Analysis Worksheets

Appendix 6.5: Interim Year Cumulative (2028) Traffic Signal Warrant Analysis Worksheets

Appendix 6.6: Interim Year Cumulative (2028) Without Project Conditions Intersection Operations Analysis Worksheets

Appendix 6.7: Interim Year Cumulative (2028) With Project Scenario 1 Conditions Intersection Analysis Worksheets

Appendix 6.8: Interim Year Cumulative (2028) With Project Scenario 2 Conditions Intersection Analysis Worksheets

Appendix 6.9: Sunday Interim Year Cumulative (2028) With PA3 Church Conditions Intersection Analysis Worksheets

Appendix 7.1: Horizon Year (2045) Without Project Conditions Intersection Operations Analysis Worksheets

Appendix 7.2: Horizon Year (2045) With Project Scenario 1 Conditions Intersection Operations Analysis Worksheets

Appendix 7.3: Horizon Year (2045) With PROJECT SCENARIO 2 Conditions Intersection Operations Analysis Worksheets

Appendix 7.4: Sunday Horizon Year (2045) With project scenario 3 (pa1 high-cube Warehouse & Truck/Trailer Lot and PA2 Church) Conditions Intersection Operations Analysis Worksheets

Appendix 7.5: Horizon Year (2045) With Project Conditions Traffic Signal Warrant Analysis Worksheets

Appendix 7.6: Horizon Year (2045) Without Project Conditions Intersection Operations Analysis Worksheets

Appendix 7.7: Horizon Year (2045) With Project Scenario 1 Conditions Intersection Operations Analysis Worksheets

Appendix 7.8: Horizon Year (2045) With PROJECT SCENARIO 2 Conditions Intersection Operations Analysis Worksheets

Appendix 7.9: Sunday Horizon Year (2045) With project scenario 3 (pa1 high-cube Warehouse & Truck/Trailer Lot and PA2 Church) Conditions Intersection Operations Analysis Worksheets

Appendix 7.10: Horizon Year (2045) With Project Conditions Queuing Analysis Worksheets

**LIST OF EXHIBITS**

Exhibit 1-1: Conceptual Site Plan.....2

Exhibit 1-2: Study Area..... 6

Exhibit 1-3: Recommended Improvements for Opening Year Cumulative (2025) Conditions ..... 10

Exhibit 1-4: Recommended Improvements for Interim Year Cumulative (2028) Conditions ..... 11

Exhibit 1-5: Recommended Improvements for Horizon Year (2045) Conditions ..... 12

Exhibit 3-1: Existing Number of Through Lanes and Intersection Controls .....32

Exhibit 3-2: City of Calimesa General Plan Circulation Element.....33

Exhibit 3-3: City of Calimesa General Plan Roadway Cross-Sections .....34

Exhibit 3-4: City of Calimesa Proposed multi-use Trail System.....36

Exhibit 3-5: Existing Pedestrian Facilities .....37

Exhibit 3-6: Existing (2022) AM Peak Hour Intersection Volumes.....38

Exhibit 3-7: Existing (2022) PM Peak Hour Intersection Volumes.....39

Exhibit 3-8: Existing (2022) Sunday Morning Intersection Volumes .....40

Exhibit 3-9: Existing (2022) Average Daily Traffic (ADT).....41

Exhibit 4-1: 2025 Warehouse (PA-1) Project Trip Distribution .....59

Exhibit 4-2: 2025 Truck/Trailer Parking Lot (PA-1) Project Trip Distribution .....60

Exhibit 4-3: 2028 Warehouse (PA-1) Project Trip Distribution .....61

Exhibit 4-4: 2028 Truck/Trailer Parking Lot (PA-1) Project Trip Distribution .....62

Exhibit 4-5: 2028 Multi-Family Residential (PA-2) Project Trip Distribution.....63

Exhibit 4-6: 2028 Sunday Morning With Church (PA-2) Project Trip Distribution.....64

Exhibit 4-7: Opening Year (2025) With PA 1, High-Cube Warehouse & Truck/Trailer Lot, pPROJECT oNLY AM Peak Hour Intersection Volumes.....66

Exhibit 4-8: Opening Year (2025) With PA 1, High-Cube Warehouse & Truck/Trailer Lot PM pPROJECT oNLY Peak Hour Intersection Volumes .....67

Exhibit 4-9: Opening Year (2025) With PA 1, High-Cube Warehouse & Truck/Trailer Lot pPROJECT oNLY Average Daily Traffic Volumes .....68

Exhibit 4-10: Opening Year (2025) With PA 1, Parcel Hub Warehouse & Truck/Trailer Lot pPROJECT oNLY AM Peak Hour Intersection Volumes .....69

Exhibit 4-11: Opening Year (2025) With PA 1, Parcel Hub Warehouse & Truck/Trailer Lot pPROJECT oNLY PM Peak Hour Intersection Volumes.....70

Exhibit 4-12: Opening Year (2025) With PA 1, Parcel Hub Warehouse & Truck/Trailer Lot pPROJECT  
oNLY Average Daily Traffic Volumes.....71

Exhibit 4-13: Interim Year (2028) Scenario 1 (PA 1 high-cube warehouse & Truck/Trailer Lot, and PA 2 Residential), Project only AM Peak Hour Intersection Volumes.....72

Exhibit 4-14: Interim Year (2028) Scenario 1 (PA 1 high-cube warehouse & Truck/Trailer Lot, and PA 2 Residential), Project only PM Peak Hour Intersection Volumes.....73

Exhibit 4-15: Interim Year (2028) Scenario 1 (PA 1 high-cube warehouse & Truck/Trailer Lot, and PA 2 Residential), Project only Average Daily Traffic Volumes.....74

Exhibit 4-16: Interim Year (2028) Scenario 2 (PA 1 Parcel Hub warehouse & Truck/Trailer Lot, and PA 2 Residential), Project only AM Peak Hour Intersection Volumes .....75

Exhibit 4-17: Interim Year (2028) Scenario 2 (PA 1 Parcel Hub warehouse & Truck/Trailer Lot, and PA 2 Residential), Project only PM Peak Hour Intersection Volumes .....76

Exhibit 4-18: Interim Year (2028) Scenario 2 (PA 1 Parcel Hub warehouse & Truck/Trailer Lot, and PA 2 Residential), Project only Average Daily Traffic Volumes.....77

Exhibit 4-19: Sunday Morning interim year (2028) Scenario 3 (PA 1 High-Cube Warehouse & Truck/Trailer Lot and PA 2 Church), Project Only Peak Hour Intersection Volumes.....78

Exhibit 4-20: Cumulative Development Location Map.....80

Exhibit 5-1: Opening Year Cumulative (2025) Without Project Peak Hour Traffic Volumes.....87

Exhibit 5-2: Opening Year Cumulative (2025) Without Project ADT Volumes .....88

Exhibit 5-3: Opening Year Cumulative (2025) With PA 1, High-Cube Warehouse & Truck/Trailer Lot Peak Hour Traffic Volumes .....90

Exhibit 5-5: Opening Year Cumulative (2025) With PA 1, Parcel Hub Warehouse & Truck/Trailer Lot Peak HOur Traffic Volumes.....92

Exhibit 5-6: Opening Year Cumulative (2025) With PA 1, Parcel Hub Warehouse & Truck/Trailer Lot ADT Volumes.....93

Exhibit 6-1: Interim Year Cumulative (2028) Without Project weekday AM and PM Peak HOur Traffic Volumes.....99

Exhibit 6-2: Interim Year Cumulative (2028) Without Project ADT Volumes .....100

Exhibit 6-3: Interim Year Cumulative (2028) Without Project Sunday Morning Traffic Volumes .....101

Exhibit 6-4: Interim Year Cumulative (2028) With Project Scenario 1 Weekday Peak hour Traffic Volumes .....103

Exhibit 6-5: Interim Year Cumulative (2028) With Project Scenario 1 ADT Volumes ..... 104

Exhibit 6-6: Interim Year Cumulative (2028) With Project Scenario 2 Weekday Peak Hour Traffic  
Volumes ..... 105

Exhibit 6-7: Interim Year Cumulative (2028) With Project Scenario 2 ADT Volumes ..... 106

Exhibit 6-8: Sunday Morning Interim Year Cumulative (2028) With Project scenario 3 (PA1 High-Cube  
Warehouse & Truck/Trailer Lot, and PA 2 church) Traffic vOLUMES ..... 107

Exhibit 6-6: Singleton Road Interchange ICE Lane Geometry ..... 109

Exhibit 7-1: Horizon Year (2045) Without Project WEekday AM and PM Peak Hour Traffic Volumes. 116

Exhibit 7-2: Horizon Year (2045) Without Project ADT Volumes ..... 117

Exhibit 7-3: Horizon Year (2045) Without Project Sunday Morning Peak Hour Traffic Volumes ..... 118

Exhibit 7-4: Horizon Year (2045) With Project Scenario 1 Weekday Peak Hour Traffic Volumes ..... 120

Exhibit 7-5: Horizon Year (2045) With Project Scenario 1 ADT Volumes..... 121

Exhibit 7-6: Horizon Year (2045) With Project Scenario 2 Weekday Peak HOur TRaffic Volumes..... 122

Exhibit 7-7: Horizon Year (2045) With Project Scenario 2 ADT Volumes..... 123

Exhibit 7-8: Horizon Year (2045) With Project Scenario 3 Sunday Morning Traffic Volumes ..... 124

This page intentionally left blank

## LIST OF TABLES

Table 1-1: Intersection Analysis Locations .....	5
Table 1-2: Traffic Signal Warrant Summary .....	8
Table 1-3: Opening and Interim Year Improvements.....	14
Table 1-4: Horizon Year Improvements and Project Fair Share Contributions .....	19
Table 2-1: Signalized Intersection LOS Thresholds.....	25
Table 2-2: Unsignalized Intersection LOS Thresholds .....	26
Table 2-3: Traffic Signal Warrant Analysis Locations.....	27
Table 3-1: Intersection Analysis for Existing (2022) Conditions .....	43
Table 4-1: Opening Year (2025) with PA1, High-Cube Warehouse & Truck/Trailer Lot Trip Generation Summary Actual Vehicles.....	47
Table 4-2: Opening Year (2025) with PA1, High-Cube Warehouse & Truck/Trailer Lot Trip Generation Summary Passenger Car Equivalent (PCE).....	48
Table 4-3: Interim Year (2028) Scenario 1 (PA1 High-Cube Warehouse & Truck/Trailer Lot, and PA 2 Residential) Trip Generation Summary Actual Vehicles.....	49
Table 4-4: Interim Year (2028) Scenario 1 (PA1 High-Cube Warehouse & Truck/Trailer Lot, and PA 2 Residential) Trip Generation Summary Passenger Car Equivalent (PCE) .....	50
Table 4-5: Opening Year (2025) with PA1, Parcel Hub Warehouse & Truck/Trailer LOT TRIP Generation Summary Actual Vehicles .....	53
Table 4-6: Opening Year (2025) with PA1, Parcel Hub Warehouse & Truck/Trailer LOT TRIP Generation Summary Passenger Car Equivalent (PCE).....	54
Table 4-7: Interim Year (2028) Scenario 2 (PA1 Parcel Hub Warehouse & Truck/Trailer Lot, and PA 2 Residential) Trip Generation Summary Actual Vehicles.....	55
Table 4-8: Interim Year (2028) Scenario 2 (PA1 Parcel Hub Warehouse & Truck/Trailer Lot, and PA 2 Residential) Trip Generation Summary Passenger Car Equivalent (PCE) .....	56
Table 4-9: Sunday Morning Interim Year (2028) Scenario 3 (PA 2 High-Cube Warehouse & Truck/Trailer Lot, PA 2 Church) Trip Generation Summary Actual Vehicles.....	57
Table 4-10: Sunday Morning Interim Year (2028) Scenario 3 (PA 2 High-Cube Warehouse & Truck/Trailer Lot, PA 2 Church) Trip Generation Summary Passenger Car Equivalent (PCE) .....	58
Table 4-11: Cumulative Development land use Summary .....	81
Table 5-1: Intersection Analysis for Opening year Cumulative (2025) Conditions .....	86



Table 5-2: Intersection Approach Lanes for Opening year Cumulative (2025) Conditions With Improvements .....95

Table 5-3: Intersection Analysis For Opening Year Cumulative (2025) Conditions With Improvements 96

Table 6-1: Intersection Analysis for Opening year Cumulative (2028) Conditions .....98

Table 6-2: Intersection Approach Lanes for Interim year Cumulative (2028) Conditions With Improvements .....110

Table 6-3: Intersection Analysis For Interim Year Cumulative (2028) Conditions With Improvements 112

Table 7-1: Intersection Analysis for Horizon year (2045) Conditions .....115

Table 7-2: Intersection Approach Lanes for Horizon year (2045) Conditions With Improvements ....126

Table 7-3: Intersection Analysis For Horizon Year (2045) Conditions With Improvements .....128

Table 7-4: Peak Hour Queuing Summary for Horizon Year (2045) Conditions.....130

Table 8-1: Project Fair Share Calculations.....133

## 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
DU	Dwelling Units
EIR	Environmental Impact Report
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
NP	No/Without Project
OPR	Office of Planning and Research
NCHRP	National Cooperative Highway Research Program
PHF	Peak Hour Factor
Project	Oak Valley North Specific Plan
RCTC	Riverside County Transportation Commission
SCAG	Southern California Association of Governments
SHS	State Highway System
TA	Traffic Analysis
TAZ	Transportation Analysis Zone
TUMF	Transportation Uniform Mitigation Fee
WP	With Project
WRCOG	Western Riverside Council of Governments
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane

This page intentionally left blank

# 1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for Oak Valley North Specific Plan development (“Project”), which is located south of Singleton Road at Calimesa Boulevard in the City of Calimesa, as shown on Exhibit 1-1. 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 the City’s General Plan level of service goals and policies. This TA has been prepared in accordance with the Final City of Calimesa Transportation Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (dated May 2020) and through consultation with City of Calimesa staff during the scoping process. (1) The Project traffic study scoping agreement is provided in Appendix 1.1 of this TA, which has been reviewed and approved by the City of Calimesa.

## 1.1 PROJECT ALTERNATIVES

Within Planning Area 1 (PA 1), two alternative approaches to trip generation of the four warehouse buildings are evaluated in terms of average weekday commute periods. These two scenarios are labeled the “PA 1 High-Cube Warehouse and Truck/Trailer Lot”, the “Project Scenario 2” and the “PA1 Parcel Hub Warehouse and Truck/Trailer Lot” for purposes of the TA (see descriptions below).

Within PA 2, 223 multi-family residential units are included the weekday analysis of the two PA 1 trip generation scenarios. However, a church facility may be developed in PA 2 instead of residential. A third scenario is therefore included in the TA which specifically addresses Sunday morning traffic with the PA 2 church.

For traffic analysis purposes, three scenarios are evaluated with the following land uses:

**a. Scenario 1:**

- 982,232 square feet of high-cube warehouse in four buildings (PA1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

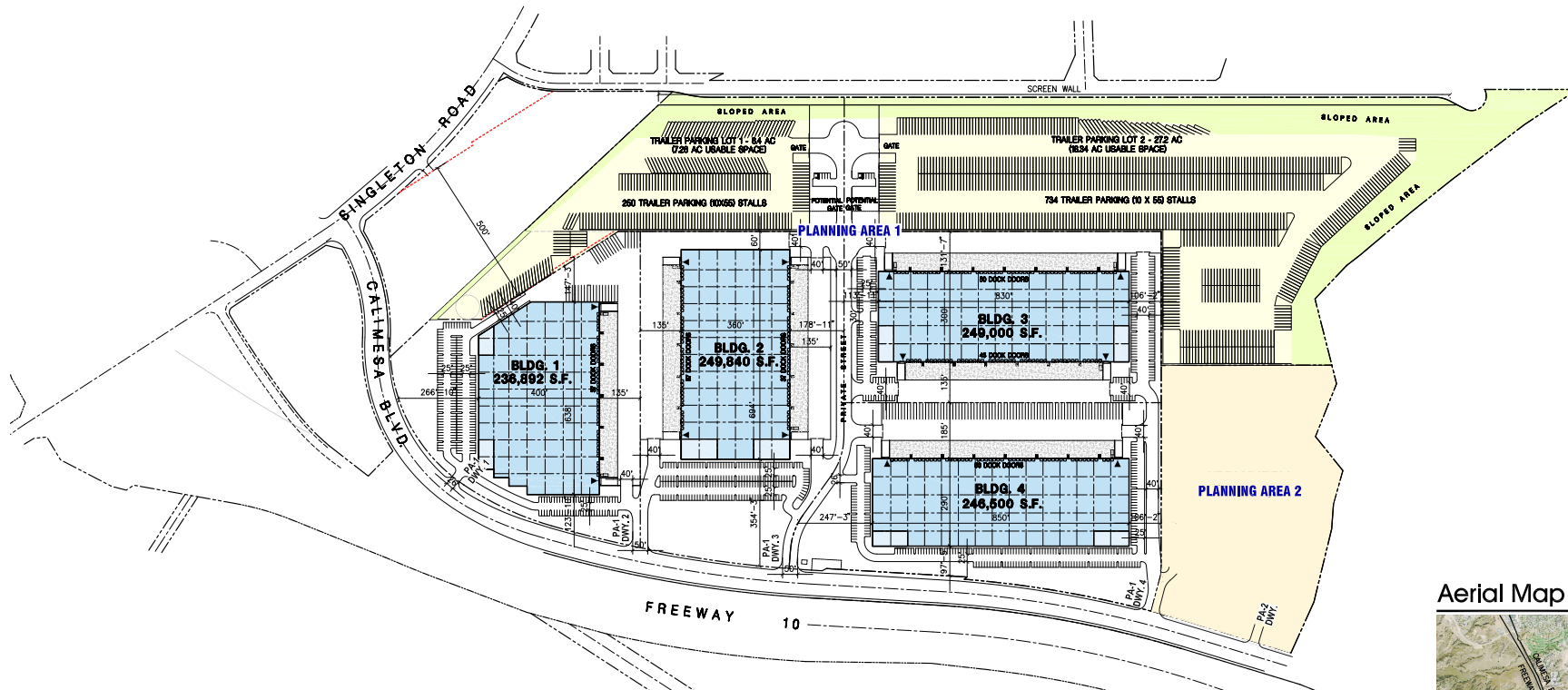
**b. Scenario 2:**

- 982,232 square feet of parcel hub warehouse in four buildings (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

**c. Scenario 3 (Sunday Morning Analysis with PA 2 Church):**

- 982,232 square feet of high-cube warehouse (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- Church with 1,200 seats (PA 2).

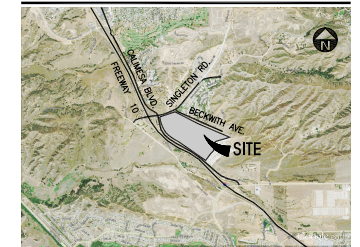
EXHIBIT 1-1: CONCEPTUAL SITE PLAN



Tabulation

SITE AREA	BLDG.1	BLDG.2	BLDG.3	BLDG.4	TRAILER LOT 1	TRAILER LOT 2	TOTAL	ZONING ORDINANCE FOR CITY
In s.f.	572,474	758,600	595,052	612,188	436,908	1,163,535	4,138,757 s.f.	Zoning Designation - Business Park (BP) & Light Industrial (LI)
In acres	13.1	17.4	13.7	14.1	10.03	26.71	95.0 ac	<b>MAXIMUM BUILDING HEIGHT ALLOWED</b>
								Height - 50'
<b>NET USABLE SITE AREA</b>								<b>MAXIMUM FLOOR AREA RATIO</b>
In s.f.					317,116	798,890	1,116,006 s.f.	FAR - 40
In acres					7.28	18.34	25.6 ac	<b>SETBACKS</b>
								<b>Buildings</b>
<b>BUILDING AREA</b>								Landscape Landscape Landscape
Office	20,000	20,000	20,000	20,000			80,000 s.f.	Collector/Local St. - 15'
Warehouse	216,892	229,840	229,000	226,500			902,232 s.f.	Major & Secondary St. - 20'
TOTAL	236,892	249,840	249,000	246,500			982,232 s.f.	Side / Rear - none, adjoints Rzone 30'
<b>COVERAGE</b>	41.4%	32.9%	41.8%	40.3%			23.7%	
<b>AUTO PARKING REQUIRED</b>								<b>Note:</b> This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.
Office: 1/250 s.f.	80	80	80	80			320 stalls	
Whse: 1st 40K @ 1/1,000 s.f.	40	40	40	40			160 stalls	
Whse: Above 40K @ 1/3,000 s.f.	59	64	63	63			249 stalls	
<b>TOTAL</b>	<b>179</b>	<b>184</b>	<b>183</b>	<b>183</b>			<b>729 stalls</b>	
<b>AUTO PARKING PROVIDED</b>								
Standard (9' x 19')	121	119	107	101	4	4	456 stalls	
Accessible Stalls (9' x 19')	7	7	6	6	0	0	26 stalls	
Accessible Stalls - Van (12' x 19')	2	2	1	1	1	1	8 stalls	
EV Capable (Chargers + Supply Equip) 20% of Total	44	43	39	37	0	0	163 stalls	
EV Chargers installed 25% of Total EV Capable	11	11	10	10				
Clean Air/FEV/Carpool/An Pool Vehicles	33	33	28	28	0	0	122 stalls	
<b>TOTAL</b>	<b>218</b>	<b>215</b>	<b>191</b>	<b>183</b>	<b>5</b>	<b>5</b>	<b>775 stalls</b>	
<b>TRAILER PARKING PROVIDED</b>								
Trailer (10' x 55')	31	0	0	79	250	734	1,094 stalls	

Aerial Map



Legend

- POTENTIAL OFFICE
- WAREHOUSE
- DRIVE THRU DOOR



Project occupancies for PA 1 is anticipated to occur in 2025. Project occupancies for PAs 1 and 2 are anticipated to occur in 2028. Exhibit 1-1 shows the conceptual site use plan of which the traffic study is based on. Access will be accommodated to Calimesa Boulevard via 4 driveways for PA 1 and 1 driveway within PA 2. It should be noted that the southerly driveway on PA 1 will also serve as a shared access to PA 2. Each of the Project driveways will have full access (no turn restrictions). Regional access to the Project will be accommodated via the I-10 Freeway at Singleton Road.

In order to develop the traffic characteristics of the PA 1 high-cube warehouse scenario for Project Scenario 1, trip-generation statistics published in the [TUMF High-Cube Warehouse Trip Generation Study](#) (WSP, January 29, 2019) are used. The purpose of WSP 2019 study was to gather enough data to develop reliable trip generation rates for centers for use in traffic impact studies in the Inland Empire. In addition, the South Coast Air Quality Management District (SCAQMD) recommends the use of 0.64 truck trips per 1,000 square feet, which would account for variations in the future users.

For the Truck/Trailer Parking Lot land use, the ITE Trip Generation Manual does not currently have applicable trip generation rates. Estimates for the proposed truck/trailer parking lot land use have been developed using data collected at two facilities with operations similar to the Project and further discussed in detail in Section 4.1 *Project Trip Generation* of this report.

For the he high-cube parcel hub warehouse in PA 1 for Project scenario 2 and remaining land use in PA 2 (potential residential or church use), the trip generation rates published by the Institute of Transportation Engineers (ITE) as provided in their [Trip Generation Manual](#), 11th Edition (2021) have been utilized. (2)

Passenger car equivalents (PCEs) allow the typical “real-world” mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses.

The Project Scenario 1 is anticipated to generate a total of 7,073 PCE trip-ends per day with 384 AM peak vehicle hour trips and 547 PM peak hour vehicle trips. The Project Scenario 2 is anticipated to generate a total of 10,529 PCE trip-ends per day with 1,203 AM peak vehicle hour trips and 1,129 PM peak hour vehicle trips. The Project Scenario 3 is anticipated to generate a total of 699 Sunday morning peak hour vehicle trips with PA2 developed as a church.

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.

## 1.2 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 (2022) Conditions
- Opening Year Cumulative (2025) Without Project
- Opening Year Cumulative (2025) With PA1 only (High-Cube Warehouse & Truck/Trailer Lot)

- Opening Year Cumulative (2025) With PA1 only (Parcel Hub Warehouse & Truck/Trailer Lot)
- Interim Year Cumulative (2028) Without Project
- Interim Year Cumulative (2028) With Project Scenario 1 (PA1 + PA2 residential)
- Interim Year Cumulative (2028) With Project Scenario 2 (PA1 + PA2 residential)
- Sunday Morning Interim Year Cumulative (2028) With Project Scenario 3 (PA1 + PA2 church)
- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project Scenario 1 (PA1 + PA2 residential)
- Horizon Year (2045) With Project Scenario 2 (PA1 + PA2 residential)
- Sunday Morning Horizon Year (2045) With Project Scenario 3 (PA1 + PA2 church)

### 1.2.1 EXISTING (2022) CONDITIONS

Information for Existing (2022) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. For a detailed discussion on the existing traffic counts, see Section 3.7 *Existing Traffic Counts*.

### 1.2.2 OPENING YEAR CUMULATIVE (2025) CONDITIONS

The Opening Year Cumulative (2025) conditions analysis determines the potential near-term cumulative circulation system deficiencies for Project opening (PA 1). To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2022) conditions of 6.12% is included for Opening Year Cumulative (2025) traffic conditions. A list of cumulative development projects was compiled from information provided by the City of Calimesa, other near-by agencies, and is consistent with other recent studies in the study area (see Table 4-11).

### 1.2.3 INTERIM YEAR CUMULATIVE (2028) CONDITIONS

The Interim Year Cumulative (2028) conditions analysis determines the potential near-term cumulative circulation system deficiencies for full buildout of the Project (PAs 1 and 2). To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2022) conditions of 12.62% is included for Interim Year Cumulative (2028) traffic conditions. Table 4-11 provides a summary of the cumulative development projects for 2028 conditions.

### 1.2.4 HORIZON YEAR (2045) CONDITIONS

Traffic projections for Horizon Year (2045) conditions were derived from the latest Riverside County Transportation Analysis Model (RIVCOM) using accepted procedures for model forecast refinement and smoothing. The Horizon Year conditions analysis is utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF) program or City of Calimesa Development Impact Fee (DIF) programs, can accommodate the long-range cumulative traffic at the target Level of Service (LOS) identified in the City of Calimesa (lead agency) General Plan. (3) Each of these regional transportation fee programs are discussed in more detail in Section 8 *Local and Regional Funding Mechanisms*.

### 1.3 STUDY AREA

To ensure that this TA satisfies the City of Calimesa’s traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by City of Calimesa 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 agreement approved by the City is included in Appendix 1.1 of this TA.

The 17 study area intersections shown on Exhibit 1-2 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with City of Calimesa staff. At a minimum, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the City’s 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 used throughout the City for the purposes of estimating a potential area of influence (i.e., study area).

**TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS**

#	Intersection	#	Intersection
1	I-10 EB Ramps / Singleton Rd.	10	Calimesa Bl. / Cherry Valley Bl.
2	I-10 WB Ramps / Singleton Rd.	11	Calimesa Bl. / I-10 WB off-ramp
3	Calimesa Bl. / Singleton Rd.	12	Roberts Rd. / Singleton Rd.
4	Beckwith Av. / Singleton Rd.	13	Calimesa Bl. / PA-1 Dwy. 1
5	Singleton Cyn. Rd. / Singleton Rd.	14	Calimesa Bl. / PA-1 Dwy. 2
6	Calimesa Bl. / Sandalwood Dr. - 5th St.	15	Calimesa Bl. / PA-1 Dwy. 3
7	Roberts Rd. / Cherry Valley Bl.	16	Calimesa Bl. / PA-1 Dwy. 4
8	I-10 EB Ramps / Cherry Valley Bl.	17	Calimesa Bl. / PA-2 Dwy.
9	I-10 WB Ramps / Cherry Valley Bl.		

### 1.4 SUMMARY OF FINDINGS

Section 3 *Area Conditions*, Section 5 *Opening Year Cumulative (2025) Traffic Conditions*, Section 6 *Interim Year Cumulative (2028) Traffic Conditions*, and Section 7 *Horizon Year (2045) Traffic Conditions* of this report include the detailed analyses without and with the Project alternatives. Level of Service deficiencies and recommended improvements are summarized below.

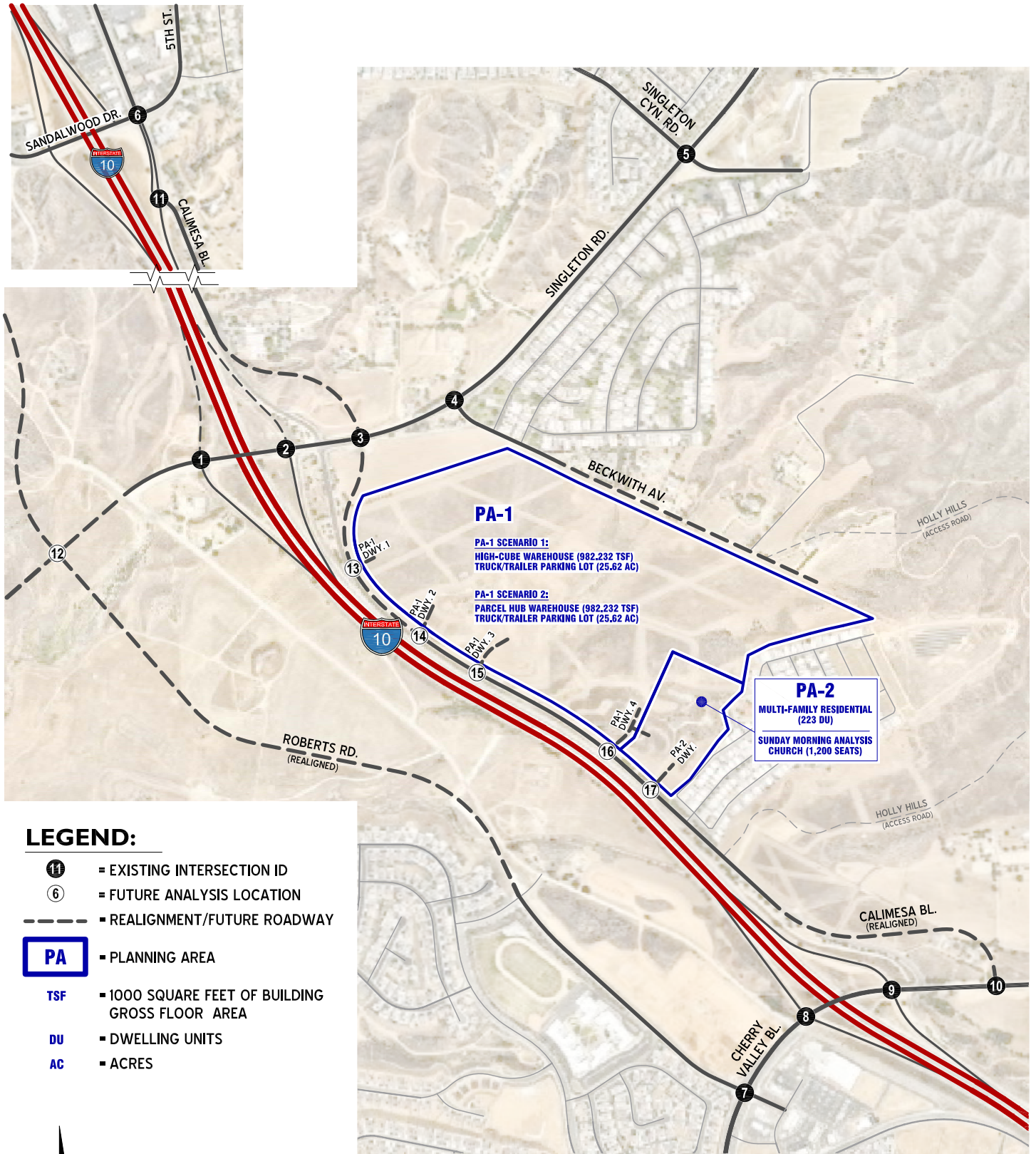
#### 1.4.1 EXISTING (2022) CONDITIONS

The following study area intersections are currently operating at an unacceptable Level of Service (LOS) during the peak hours:

- I-10 EB Ramps & Cherry Valley Blvd. (#8) – LOS F AM and PM peak hours
- I-10 WB Ramps & Cherry Valley Blvd. (#9) – LOS F AM and PM peak hours
- Calimesa Blvd. & Cherry Valley Blvd. (#10) – LOS F AM peak hour



**EXHIBIT 1-2: STUDY AREA**



Traffic signal warrants are estimated to be satisfied for existing conditions (see Table 1-2) at the following locations:

- Calimesa Boulevard at Singleton Road (#3)
- I-10 EB Ramps at Cherry Valley Boulevard (#8)
- I-10 WB Ramps at Cherry Valley Boulevard (#9)

I-10 Interchange improvements are currently planned at both Singleton Road and Cherry Valley Boulevard. The initial improvements at the I-10 / Singleton Road interchange include (1) the eastbound offramp from I-10 to Singleton Road, (2) the westbound onramp to I-10 from Singleton Road, and (3) realignment of Calimesa Boulevard.

#### 1.4.2 ON-SITE IMPROVEMENTS

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

- Calimesa Boulevard at its ultimate half-section width as a Major Arterial (typical 92-foot right-of-way) between the Project's northern and southern boundaries consistent with City of Calimesa standards.
- At Planning Area 1 Driveway 1 (intersection #13), provide 150' southbound left turn pocket on Calimesa Boulevard. For the Project Scenario 2 alternative, provide traffic signal control at this location.
- At Planning Area 1 Driveway 2 (intersection #14), provide 150' southbound left turn pocket on Calimesa Boulevard.
- At Planning Area 1 Driveway 3 (intersection #15), provide 150' southbound left turn pocket on Calimesa Boulevard. For the Project Scenario 2, provide traffic signal control and separate 150' northbound right turn pocket on Calimesa Boulevard.
- At Planning Area 1 Driveway 4 (intersection #16), provide 150' southbound left turn pocket on Calimesa Boulevard.
- At Planning Area 2 Driveway (intersection #17), provide 150' southbound left turn pocket on Calimesa Boulevard.

Horizontal sight distance should be evaluated for all Project driveways once final site design occurs based on the City's guidelines. As defined by the California Department of Transportation (Caltrans) Highway Design Manual, sight distance is the continuous length of highway ahead visible to the driver.

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 Caltrans and City of Calimesa sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

**TABLE 1-2: TRAFFIC SIGNAL WARRANT SUMMARY<sup>1,2</sup>**

# Intersection	Existing	Opening Year (2025) Cumulative			Interim Year (2028) Cumulative					Horizon Year (2045) Cumulative				
		Without Project	With PA1 High-Cube Warehouse & Truck/Trailer Lot	With PA1 Parcel Hub Warehouse & Truck/Trailer Lot	Without Project	With Scenario 1	With Scenario 2	Sunday w/o Project	Sunday PA2 Church (Scenario 3)	Without Project	With Scenario 1	With Scenario 2	Sunday w/o Project	Sunday PA2 Church (Scenario 3)
1 I-10 EB Ramps / Singleton Rd.	n/a	X												
2 I-10 WB Ramps / Singleton Rd.	n/a	X												
3 Calimesa Bl. / Singleton Rd.	X													
4 Beckwith Av. / Singleton Rd.	--	--	--	--	X									
5 Singleton Cyn. Rd. / Singleton Rd.	--	--	--	--	--	--	--	--	--	X				
6 Calimesa Bl. / Sandalwood Dr. - 5th St.	Existing	Existing Signal			Existing Signal					Existing Signal				
7 Roberts Rd. / Cherry Valley Bl.	Existing	Existing Signal			Existing Signal					Existing Signal				
8 I-10 EB Ramps / Cherry Valley Bl.	X													
9 I-10 WB Ramps / Cherry Valley Bl.	X													
10 Calimesa Bl. / Cherry Valley Bl.	--	X												
11 Calimesa Bl. / I-10 WB off-ramp	--	X												
12 Roberts Rd. / Singleton Rd.	--	--	--	--	X									
13 Calimesa Bl. / PA-1 Dwy. 1	n/a	n/a	--	--	n/a	--	--	n/a	--	n/a	--	--	n/a	--
14 Calimesa Bl. / PA-1 Dwy. 2	n/a	n/a	--	--	n/a	--	--	n/a	--	n/a	--	--	n/a	--
15 Calimesa Bl. / PA-1 Dwy. 3	n/a	n/a	--	--	n/a	--	--	n/a	--	n/a	--	X	n/a	--
16 Calimesa Bl. / PA-1 Dwy. 4	n/a	n/a	--	--	n/a	--	--	n/a	--	n/a	--	--	n/a	--
17 Calimesa Bl. / PA-2 Dwy.	n/a	n/a	--	--	n/a	--	--	n/a	--	n/a	--	--	n/a	--

<sup>1</sup> X = Intersection meets traffic signal warrant criteria; -- = traffic signal not warranted; n/a = not applicable;

 = Warranted under previously analysis scenario

<sup>2</sup> Peak hour volume based traffic signal warrant uses the sum of all the approach volumes on the major road and the sum of the highest approach volume on the minor leg.

Daily Volume based traffic signal warrant uses the Average Daily Traffic (ADT) volume on the major road and half of the highest ADT on the minor leg.

### 1.4.3 OPENING YEAR CUMULATIVE (2025) CONDITIONS

The recommended intersection improvements needed to address the cumulative deficiencies identified under Opening Year (2025) traffic conditions are shown in Exhibit 1-3.

Traffic signal warrants are estimated to be satisfied for Opening Year (2025) conditions without the Project (see Table 1-2) at the following locations:

- I-10 EB Ramps at Singleton Road (#1)
- I-10 WB Ramps at Singleton Road (#2)
- Calimesa Boulevard at Cherry Valley Boulevard (#10)
- Calimesa Boulevard at I-10 WB Off Ramp (#11)

### 1.4.4 INTERIM YEAR CUMULATIVE (2028) CONDITIONS

The recommended intersection improvements needed to address cumulative deficiencies identified under Interim Year (2028) traffic conditions without and with the Project are shown in Exhibit 1-4. Traffic signal warrants are estimated to be satisfied for Interim Year (2028) conditions without the Project (see Table 1-2) at the following locations:

- Beckwith Avenue at Singleton Road
- Roberts Road at Singleton Road

It should be noted that the intersections of Calimesa Boulevard at PA-1 Driveway 1 (#13) and Calimesa Boulevard at PA-1 Driveway 3 (#15) are anticipated to satisfy signal warrants under Horizon Year (2045) With Project Scenario 2 conditions.

With cumulative growth, roadway improvements which involve widening of the existing Singleton Road bridge over the I-10 mainline are needed to serve 2028 conditions without the Project. The Cherry Valley Boulevard bridge over the I-10 Freeway mainline also needs to be widened to serve cumulative growth to 2028.

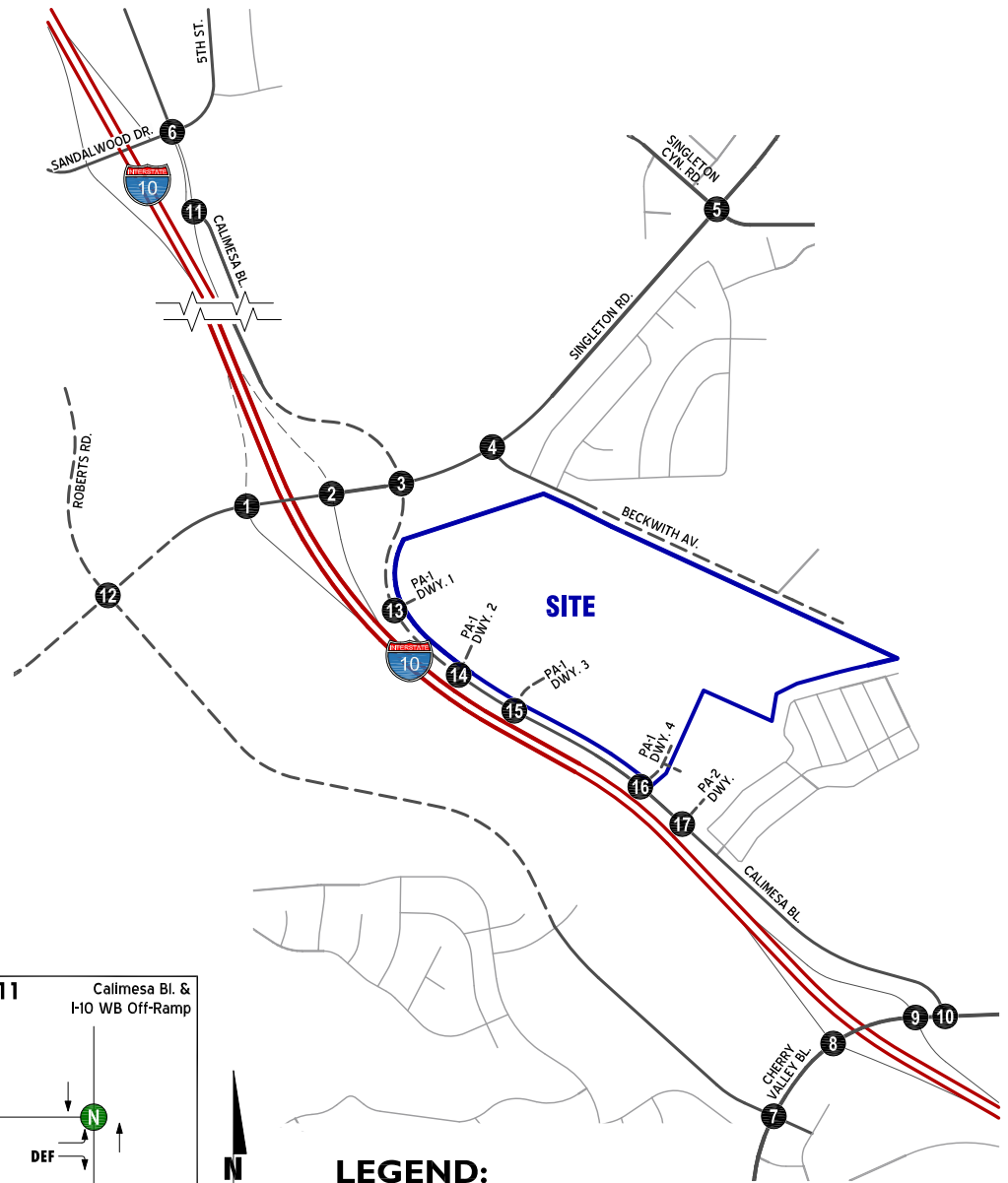
### 1.4.5 HORIZON YEAR (2045) CONDITIONS

The recommended intersection improvements needed to address the cumulative deficiencies identified under Horizon Year (2045) traffic conditions are shown in Exhibit 1-5. Traffic signal warrants are estimated to be satisfied for Horizon Year (2045) conditions without the Project (see Table 1-2) at the intersection of Singleton Canyon Road at Singleton Road.

Roadway improvements which involve widening the existing Singleton Road bridge over the I-10 mainline to its ultimate configuration are needed without or with the Project.

**EXHIBIT 1-3: RECOMMENDED IMPROVEMENTS FOR  
OPENING YEAR (2025) CUMULATIVE WITH PROJECT**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>	
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>	
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>	
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>	
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>	<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy. 1</p> <p><b>FUTURE INTERSECTION</b></p>



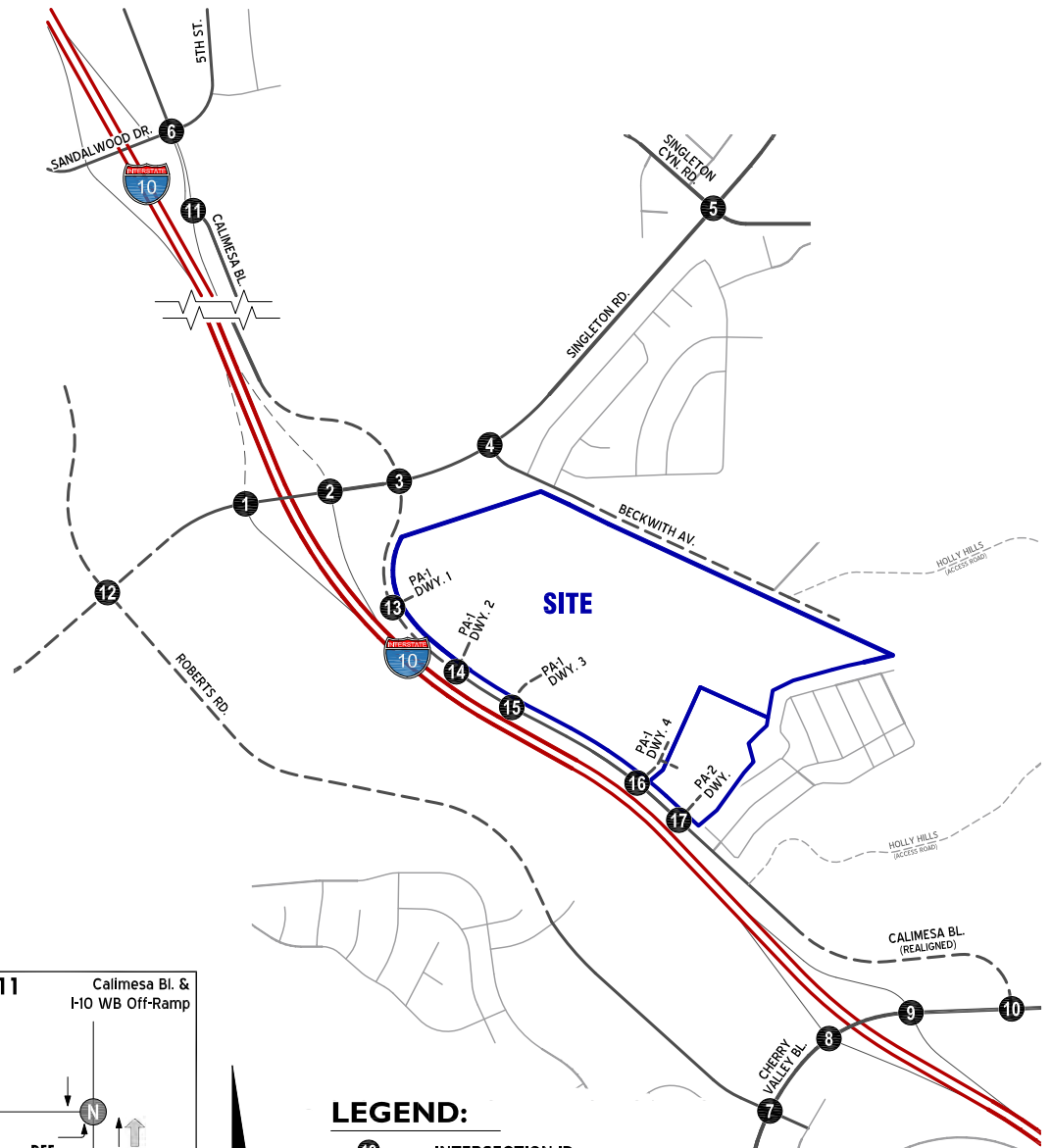
**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = SITE BOUNDARY
- = EXISTING TRAFFIC SIGNAL
- = NEW TRAFFIC SIGNAL IMPROVEMENT
- = ALL WAY STOP
- = STOP SIGN
- = EXISTING LANE
- = CUMULATIVE LANE IMPROVEMENT
- = PROJECT LANE IMPROVEMENT
- = DEFACTO RIGHT TURN LANE
- = RIGHT TURN OVERLAP PHASE
- = FOR WITH PA1 PARCEL HUB MIX PROJECT, ADDITIONAL IMPROVEMENTS ARE RECOMMENDED



**EXHIBIT 1-4: RECOMMENDED IMPROVEMENTS FOR INTERIM YEAR (2028) CUMULATIVE WITH PROJECT**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>	
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>	
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>	
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>	
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>	<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>

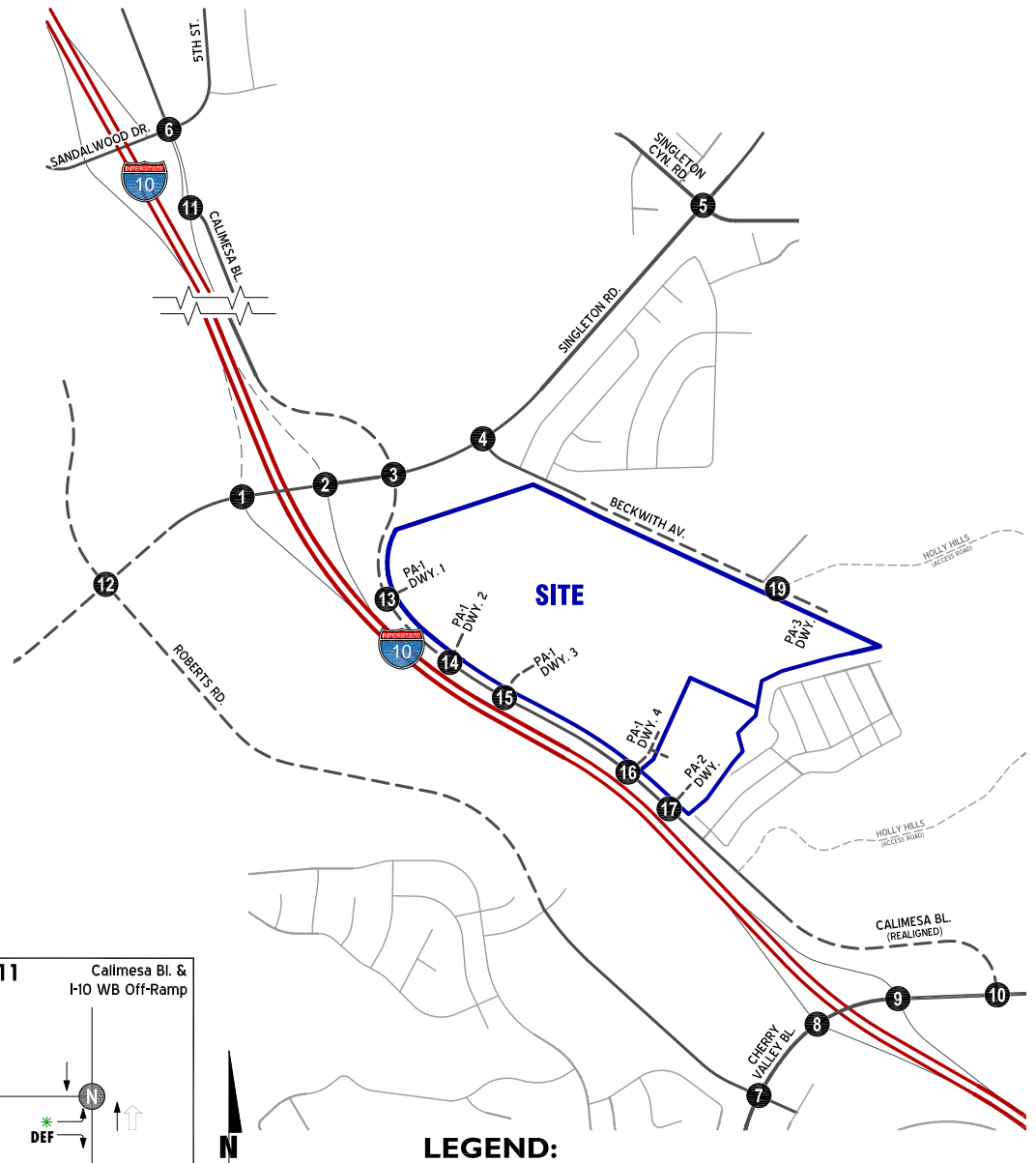


**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = SITE BOUNDARY
- = EXISTING TRAFFIC SIGNAL
- = PREVIOUS TRAFFIC SIGNAL IMPROVEMENT
- = NEW TRAFFIC SIGNAL IMPROVEMENT
- = ALL WAY STOP
- = STOP SIGN
- = EXISTING LANE
- = PREVIOUS LANE IMPROVEMENT
- = CURRENT CUMULATIVE LANE IMPROVEMENT
- = CURRENT PROJECT LANE IMPROVEMENT
- = DEFACTO RIGHT TURN LANE
- = EXISTING RIGHT TURN OVERLAP PHASE
- = CUMULATIVE RIGHT TURN OVERLAP PHASE IMPROVEMENT
- = PROJECT RIGHT TURN OVERLAP PHASE IMPROVEMENT
- = FOR WITH PA1 PARCEL HUB MIX PROJECT, ADDITIONAL IMPROVEMENTS ARE RECOMMENDED

**EXHIBIT 1-5: RECOMMENDED IMPROVEMENTS FOR HORIZON YEAR (2045) WITH PROJECT**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>	
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>	
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>	
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>	
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>



**LEGEND:**

- 19 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = SITE BOUNDARY
- = EXISTING TRAFFIC SIGNAL
- = PREVIOUS TRAFFIC SIGNAL IMPROVEMENT
- = NEW TRAFFIC SIGNAL IMPROVEMENT
- = ALL WAY STOP
- = STOP SIGN
- = EXISTING LANE
- = PREVIOUS LANE IMPROVEMENT
- = CURRENT CUMULATIVE LANE IMPROVEMENT
- = CURRENT PROJECT LANE IMPROVEMENT
- DEF = DEFACTO RIGHT TURN LANE
- RTO = EXISTING RIGHT TURN OVERLAP PHASE
- = PREVIOUS RIGHT TURN OVERLAP PHASE IMPROVEMENT
- \* = CUMULATIVE IMPROVEMENT, PROVIDE A NEW RECEIVING LANE

#### **1.4.6 OFF-SITE IMPROVEMENTS AND PROJECT FAIR SHARE TRAFFIC CONTRIBUTIONS**

There are cumulative improvement needs identified above at off-site intersections, and these improvements are listed in Table 1-3 for Opening Year and Interim Year conditions and in Table 1-4 for Horizon Year conditions. Table 1-4 also indicates the Project fair share traffic contribution at each location and rough order of magnitude (ROM) estimates for each improvement. The Project's responsibility for contributions towards deficient intersection improvements will be fulfilled through various mechanisms, including payment to fair share programs (if applicable) that would be assigned to construction of the identified recommended improvements or separate fair share funding contributions.



TABLE 1-3: OPENING YEAR AND INTERIM YEAR IMPROVEMENTS

#	Intersection Location	Opening Year Cumulative (2025) <sup>1</sup>			Interim Year Cumulative (2028) <sup>1</sup>			
		Without Project	With PA1 High-Cube Warehouse & Truck/Trailer Lot Project	With PA1 Parcel Hub Warehouse & Truck/Trailer Lot Project	Without Project	With Project Scenario 1	With Project Scenario 2	Sunday Morning With Project Scenario 3
1	I-10 EB Ramps / Singleton Rd.	- Install a Traffic Signal	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Construct 1 shared SB left/through lane	- Same	- Same	- Modify SB L/T striping to SB L/T/R lane	- Same	- Same	- Same
		- Construct 1 SB right turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 EB right turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 WB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
					- Add 2nd EB through lane	- Same	- Same	- Add 1 SB left turn lane
2	I-10 WB Ramps / Singleton Rd.	- Install a Traffic Signal	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 EB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 WB right turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
					- Add 1 NB left turn lane	- Same	- Same	- Same
					- Add 2nd EB left turn lane	- Same	- Same	- Same
						- Add 1 NBR & modify existing NBT to shared NBT/R		
3	Calimesa Bl. / Singleton Rd.	- Realign Calimesa Boulevard	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Install a Traffic Signal	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1NBT/R	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 SBL & 1 SBT	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 EB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 WB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
			- Add 1 NB left turn lane	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
			<b>- Add 1 EB right turn lane</b>	<b>- Same</b>	--	--	--	--
				- Add 2nd NB left turn lane	--	- Add 2nd NBL	- Same	- Same
					- Add 1 SB right turn lane	- Same	- Same	- Same
			- Add 2nd EBT lane	- Modify previous (2025 w/ Project) EBR improvement to provide 2nd EB through lane	- Same as 2028 w/ Project Scenario 1	- Same as 2028 w/ Project Scenario 1		
			- Add a 2nd WB through lane	- Same	- Same	- Same		
				- Add 1 NBR	- Same	- Same		

TABLE 1-3: OPENING YEAR AND INTERIM YEAR IMPROVEMENTS

#	Intersection Location	Opening Year Cumulative (2025) <sup>1</sup>			Interim Year Cumulative (2028) <sup>1</sup>			Sunday Morning With Project Scenario 3
		Without Project	With PA1 High-Cube Warehouse & Truck/Trailer Lot Project	With PA1 Parcel Hub Warehouse & Truck/Trailer Lot Project	Without Project	With Project Scenario 1	With Project Scenario 2	
4	Beckwith Av. / Singleton Rd.	--	--	--	- Install a Traffic Signal	- Same	- Same	- Same
					- Provide 1 NB left turn lane	- Same	- Same	- Same
					- Provide 1 EB U-turn lane	- Same	- Same	- Same
					- Provide 1 EB right turn lane	- Same	- Same	- Same
5	Singleton Cyn. Rd. / Singleton Rd.	--	--	--	--	--	--	--
6	Calimesa Bl. / Sandalwood Dr. - 5th St.	--	--	--	- Modify NBT striping to NBL turn lane	- Same	- Same	- Same
					- Modify WBR striping to WBT lane	- Same	- Same	- Same
7	Roberts Rd. / Cherry Valley Bl.	- Add 1 SB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
					- Add 2nd SB left turn lane	- Same	- Same	- Same
					- Add 2nd EB left turn lane	- Same	- Same	- Same
					- Modify traffic signal to implement overlap phasing on the existing WB right turn lane	- Same	- Same	- Same
8	I-10 EB Ramps / Cherry Valley Bl.	- Install a Traffic Signal	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 SB right turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 EB right turn lane	- Same	- Same	- Reconstruct EB right turn to shared EB through/right lane	- Same	- Same	- Same
		- Add 1 WB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
					- Add 2nd SB right turn lane	- Same	- Same	- Same
					- Widen Cherry Valley Boulevard Bridge to 4 lane roadway	- Same	- Same	- Same
					- Add 2nd WB through lane	- Same	- Same	- Same
9	I-10 WB Ramps / Cherry Valley Bl.	- Install a Traffic Signal	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 NB right turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 EB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 WB right turn lane	- Same	- Same	- Reconstruct WB right turn to 2nd WB through lane	- Same	- Same	- Same
					- Add 2nd EB left turn lane	- Same	- Same	- Same
					- Add 1 WB right turn lane			

TABLE 1-3: OPENING YEAR AND INTERIM YEAR IMPROVEMENTS

#	Intersection Location	Opening Year Cumulative (2025) <sup>1</sup>			Interim Year Cumulative (2028) <sup>1</sup>			
		Without Project	With PA1 High-Cube Warehouse & Truck/Trailer Lot Project	With PA1 Parcel Hub Warehouse & Truck/Trailer Lot Project	Without Project	With Project Scenario 1	With Project Scenario 2	Sunday Morning With Project Scenario 3
10	Calimesa Bl. / Cherry Valley Bl.	- Install a Traffic Signal	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 SB right turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 1 EB left turn lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
		- Add 2nd WB through lane	- Same	- Same	- Same as 2025	- Same as 2025	- Same as 2025	- Same as 2025
						- Modify traffic signal to implement overlap phasing on the SBR turn lane	- Same	- Same
11	Calimesa Bl. / I-10 WB off-ramp	--	--	--	- Install a Traffic Signal	- Same	- Same	- Same
12	Roberts Rd. / Singleton Rd.	--	--	--	- Realign Roberts Road	- Same	- Same	- Same
					- Install a Traffic Signal	- Same	- Same	- Same
					NB Approach: 1 NBL, 1 NBT, & 1 NBR	- Same	- Same	- Same
					SB Approach: 1 SBL, 2 SBT, & 1 SBR	- Same	- Same	- Same
					EB Approach: 1 EBL, 2 EBT, & 1 EBR	- Same	- Same	- Same
					WB Approach: 1 WBL, 2 WBT, & 1 WBR	- Same	- Same	- Same
					- Add 2nd NB through lane	- Same	- Same	- Same
			- Modify traffic signal to implement overlap phasing on the NB right turn lane	- Same	- Same	- Same		
13	Calimesa Bl. / PA-1 Dwy. 1	- N/A	- Provide Cross-Street Stop	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
			- Add 1 SB left turn lane	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
			- Construct 1 shared WB L/R	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
			- Add 2nd NB through lane	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
					- Add 2nd SB through lane	- Same	- Same	- Same
14	Calimesa Bl. / PA-1 Dwy. 2	- N/A	- Provide Cross-Street Stop	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
			- Add 1 SB left turn lane	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
			- Construct 1 shared WB L/R	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
			- Add 2nd NB through lane	- Same		- Same as 2025 with Project	- Same as 2025 with Project	- Same as 2025 with Project
					- Add 2nd SB through lane	- Same	- Same	- Same

**TABLE 1-3: OPENING YEAR AND INTERIM YEAR IMPROVEMENTS**

# Intersection Location	Opening Year Cumulative (2025) <sup>1</sup>			Interim Year Cumulative (2028) <sup>1</sup>			Sunday Morning With Project Scenario 3
	Without Project	With PA1 High-Cube Warehouse & Truck/Trailer Lot Project	With PA1 Parcel Hub Warehouse & Truck/Trailer Lot Project	Without Project	With Project Scenario 1	With Project Scenario 2	
15 Calimesa Bl. / PA-1 Dwy. 3	- N/A	- <b>Provide Cross-Street Stop</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
		- <b>Add 1 SB left turn lane</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
		- <b>Construct 1 shared WB L/R</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
		- <b>Add 2nd NB through lane</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
				- <b>Add 2nd SB through lane</b>	- <b>Same</b>	- <b>Same</b>	- <b>Same</b>
					- <b>Install a Traffic Signal</b>		
16 Calimesa Bl. / PA-1 Dwy. 4	- N/A	- <b>Provide Cross-Street Stop</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
		- <b>Add 1 SB left turn lane</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
		- <b>Construct 1 shared WB L/R</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
		- <b>Add 2nd NB through lane</b>	- <b>Same</b>		- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>	- <b>Same as 2025 with Project</b>
				- <b>Add 2nd SB through lane</b>	- <b>Same</b>	- <b>Same</b>	- <b>Same</b>
17 Calimesa Bl. / PA-2 Dwy.	- N/A	- N/A	- N/A		- <b>Provide Cross-Street Stop</b>	- <b>Same</b>	- <b>Same</b>
					- <b>Add 1 SB left turn lane</b>	- <b>Same</b>	- <b>Same</b>
					- <b>Construct 1 shared WB L/R</b>	- <b>Same</b>	- <b>Same</b>
					- <b>Add 2nd NB through lane</b>	- <b>Same</b>	- <b>Same</b>
				- <b>Add 2nd SB through lane</b>	- <b>Same</b>	- <b>Same</b>	- <b>Same</b>

<sup>1</sup> Improvements shown in **bold** are to be constructed by the Project (i.e., construct responsibility). See Table 1-4 for the "Construct" obligation.

**TABLE 1-4: HORIZON YEAR IMPROVEMENTS AND PROJECT FAIR SHARE TRAFFIC CONTRIBUTIONS**

#	Intersection Location	Horizon Year (2045)						
		Without Project	With Project Scenario 1		With Project Scenario 2		Sunday Morning With Project Scenario 3	
			Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>
1	I-10 EB Ramps / Singleton Rd.	- Same as 2025 (Install TS)	- Same as 2025	4.5%	- Same as 2025	12.9%	- Same as 2025	6.7%
		- Modify SB L/T/R striping to SB L/T lane	- Same		- Modify SB L/T striping to SB L/T/R lane		- Same	
		- Same as 2025 (Add 1 SBR)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 EBR)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 WBL)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2028 (Add 2nd EBT)	- Same as 2028		- Same as 2028		- Same as 2028	
		--	--		- Add 1 SB left turn lane (same as 2028)		--	
		- Add 2nd SB right turn lane	- Same		--		- Same	
		- Add 2nd WB left turn lane	- Same		- Same		- Same	
		- Add 2nd WB through lane	- Same		- Same		- Same	
2	I-10 WB Ramps / Singleton Rd.	- Same as 2025 (Install TS)	- Same as 2025	8.4%	- Same as 2025	22.9%	- Same as 2025	10.3%
		- Same as 2025 (Add 1 EBL)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 WBR)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2028 (Add 1 NBL)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add 2nd EBL)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Add 1 NB right turn lane & modify existing NBT to shared NB L/T/R	- Same		- Same		- Same	
		- Add 2nd EBT	- Same		- Same		- Same	
		- Modify WB approach to provide a 2nd WBT and 1 WBR	- Same		- Same		- Same	
3	Calimesa Bl. / Singleton Rd.	- Same as 2025 (Realign Calimesa)	- Same as 2025	11.7%	- Same as 2025	28.0%	- Same as 2025	17.8%
		- Same as 2025 (Install TS)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 NBT/R)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 SBL & 1 SBT/R)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 EBL)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 WBL)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Add 1 NB left turn lane	- Same as 2025 w/ Project (Add 1 NBL)		- Same as 2025 w/ Project		- Same as 2025 w/ Project	
		--	-		-		-	
		- Add 2nd NB left turn lane	- Same as 2028 w/ Project (Add 2nd NBL)		- Same as 2028 w/ Project		- Same as 2028 w/ Project	
		- Same as 2028 (Add 1 SBR)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add 2nd EBT)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add 2nd WBT)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Add 2nd NBT lane	- Modify previous 2028 w/ Project improvement (Add 1 NBR) to provide 2nd NBT lane		- Same		- Same	
		- Add 2nd EBL	- Same		- Same		- Same	
			<b>- Add 1 EB right turn lane</b>	<b>Construct</b>	<b>- Same</b>	<b>Construct</b>	<b>- Same</b>	<b>Construct</b>

**TABLE 1-4: HORIZON YEAR IMPROVEMENTS AND PROJECT FAIR SHARE TRAFFIC CONTRIBUTIONS**

#	Intersection Location	Horizon Year (2045)						
		Without Project	With Project Scenario 1		With Project Scenario 2		Sunday Morning With Project Scenario 3	
			Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>
4	Beckwith Av. / Singleton Rd.	- Same as 2028 (Install TS)	- Same as 2028	0.8%	- Same as 2028	2.5%	- Same as 2028	3.8%
		- Same as 2028 (Add 1 NBL)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add 1 EBU-turn)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Modify previous EBR improvement to provide 2nd EBT lane	- Same		- Same		- Same	
		- Add 2nd WBT lane	- Same		- Same		- Same	
5	Singleton Cyn. Rd. / Singleton Rd.	- Install a Traffic Signal	- Same	1.3%	- Same	3.5%	- Same	4.7%
		- Add 1 NB left turn lane	- Same		- Same		- Same	
		- Add 1 SB left turn lane	- Same		- Same		- Same	
6	Calimesa Bl. / Sandalwood Dr. - 5th St.	- Same as 2028 (Modify NBT striping to NBL turn lane)	- Same	1.1%	- Same	2.4%	- Same	7.6%
		- Same as 2028 (Modify WBR striping to WBT lane)	- Same		- Same		- Same	
7	Roberts Rd. / Cherry Valley Bl.	- Same as 2025 (Add 1 SBL)	- Same as 2025	0.9%	- Same as 2025	2.5%	- Same as 2025	7.2%
		- Same as 2028 (Add 2nd SBL)	- Same		- Same		- Same	
		- Same as 2028 (Add 2nd EBL)	- Same		- Same		- Same	
		- Same as 2028 (Add overlap phase to existing WBR)	- Same		- Same		- Same	
		- Provide 2nd WB left turn lane	- Same		- Same		- Same	
8	I-10 EB Ramps / Cherry Valley Bl.	- Same as 2025 (Install TS)	- Same as 2025	3.9%	- Same as 2025	9.9%	- Same as 2025	11.5%
		- Same as 2025 (Add 1 SBR)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2028 (2nd EBT)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2025 (Add 1 WBL)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2028 (Add 2nd SBR)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Widen Cherry Valley Blvd. bridge to 4-lane roadway)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add 2nd WBT)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Add 2nd WB left turn lane	- Same		- Same		- Same	
- Add 1 EB right turn lane	- Same		- Same		- Same			
9	I-10 WB Ramps / Cherry Valley Bl.	- Same as 2025 (Install TS)	- Same as 2025	5.4%	- Same as 2025	12.9%	- Same as 2025	13.2%
		- Same as 2025 (Add 1 NBR)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 EBL)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2028 (Reconstruct WBR to 2nd WBT lane)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add 2nd EBL)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Add 1 WB right turn lane	- Same		- Same		- Same	
		- Add 2nd EB through lane	- Same		- Same		- Same	
					- Modify NB L/T striping to NB L/T/R lane			

TABLE 1-4: HORIZON YEAR IMPROVEMENTS AND PROJECT FAIR SHARE TRAFFIC CONTRIBUTIONS

#	Intersection Location	Horizon Year (2045)						
		Without Project	With Project Scenario 1		With Project Scenario 2		Sunday Morning With Project Scenario 3	
			Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>
10	Calimesa Bl. / Cherry Valley Bl.	- Same as 2025 (Install TS)	- Same as 2025	6.4%	- Same as 2025	16.0%	- Same as 2025	17.0%
		- Same as 2025 (Add 1 SBR)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 1 EBL)	- Same as 2025		- Same as 2025		- Same as 2025	
		- Same as 2025 (Add 2nd WBT)	- Same as 2025		- Same as 2025		- Same as 2025	
		- <b>Modify traffic signal to implement overlap phasing on the SB right turn lane</b>	- <b>Same</b>	<b>Construct</b>	- <b>Same</b>	<b>Construct</b>	- <b>Same</b>	<b>Construct</b>
		- Add 2nd EB through lane	- Same		- Same		- Same	
11	Calimesa Bl. / I-10 WB off-ramp	- Same as 2028 (Install TS)	- Same as 2028	1.2%	- Same as 2028	3.1%	- Same as 2028	19.2%
		- Provide 2nd NB receiving lane	- Same		- Same		- Same	
12	Roberts Rd. / Singleton Rd.	- Same as 2028 (Realign Roberts)	- Same as 2028	0.5%	- Same as 2028	1.3%	- Same as 2028	2.7%
		- Same as 2028 (Install TS)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Provide 1 NBL, 1 NBT, 1 NBR)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Provide 1 SBL, 2 SBT, 1 SBR)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Provide 1 EBL, 2 EBT, 1 EBR)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Provide 1 WBL, 2 WBT, 1 WBR)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add 2nd NBT)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Same as 2028 (Add overlap phase to previous NBR improvement)	- Same as 2028		- Same as 2028		- Same as 2028	
		- Add 2nd WBL turn lane	- Same		- Same		- Same	
13	Calimesa Bl. / PA-1 Dwy. 1	- <b>Same as 2025 w/ Project (Provide Cross-Street Stop control)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2025 w/ Project (Add 1 SBL)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2025 w/ Project (Add shared WB L/R)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2025 w/ Project (Add 2nd NBT)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2028 w/o Project (Add 2nd SBT)</b>	- <b>Same as 2028 w/o Project</b>	<b>Construct</b>	- <b>Same as 2028 w/o Project</b>	<b>Construct</b>	- <b>Same as 2028 w/o Project</b>	<b>Construct</b>
14	Calimesa Bl. / PA-1 Dwy. 2	- <b>Same as 2025 w/ Project (Provide Cross-Street Stop control)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2025 w/ Project (Add 1 SBL)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2025 w/ Project (Add shared WB L/R)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2025 w/ Project (Add 2nd NBT)</b>	<b>Construct</b>		- <b>Same as 2025 w/ Project</b>	<b>Construct</b>	- <b>Same as 2025 w/ Project</b>	<b>Construct</b>
		- <b>Same as 2028 (Add 2nd SBT)</b>	- <b>Same as 2028 w/o Project</b>	<b>Construct</b>	- <b>Same as 2028 w/o Project</b>	<b>Construct</b>	- <b>Same as 2028 w/o Project</b>	<b>Construct</b>

**TABLE 1-4: HORIZON YEAR IMPROVEMENTS AND PROJECT FAIR SHARE TRAFFIC CONTRIBUTIONS**

#	Intersection Location	Horizon Year (2045)						
		Without Project	With Project Scenario 1		With Project Scenario 2		Sunday Morning With Project Scenario 3	
			Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>	Improvements	Fair Share (%) <sup>1</sup>
15	Calimesa Bl. / PA-1 Dwy. 3	- Same as 2025 w/ Project (Provide Cross-Street Stop control)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2025 w/ Project (Add 1 SBL)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2025 w/ Project (Add shared WB L/R)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2025 w/ Project (Add 2nd NBT)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2028 (Add 2nd SBT)	- Same as 2028 w/o Project	<b>Construct</b>	- Same as 2028 w/o Project	<b>Construct</b>	- Same as 2028 w/o Project	<b>Construct</b>
			- Same as 2025 with Project Scenario 2	<b>Construct</b>				
16	Calimesa Bl. / PA-1 Dwy. 4	- Same as 2025 w/ Project (Provide Cross-Street Stop control)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2025 w/ Project (Add 1 SBL)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2025 w/ Project (Add shared WB L/R)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2025 w/ Project (Add 2nd NBT)	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	- Same as 2025 w/ Project	<b>Construct</b>	
		- Same as 2028 (Add 2nd SBT)	- Same as 2028 w/o Project	<b>Construct</b>	- Same as 2028 w/o Project	<b>Construct</b>	- Same as 2028 w/o Project	<b>Construct</b>
17	Calimesa Bl. / PA-2 Dwy.	- Same as 2028 w/ Project (Provide Cross-Street Stop control)	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	
		- Same as 2028 w/ Project (Add 1 SBL)	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	
		- Same as 2028 w/ Project (Add shared WB L/R)	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	
		- Same as 2028 w/ Project (Add 2nd NBT)	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	- Same as 2028 w/ Project	<b>Construct</b>	
		- Same as 2028 w/o Project	<b>Construct</b>	- Same as 2028 w/o Project	<b>Construct</b>	- Same as 2028 w/o Project	<b>Construct</b>	

<sup>1</sup> Project Fair Share percentage (see Table 8-1) applies to the improvements unless otherwise noted. Improvements shown in **bold** are to be constructed by the Project (i.e., construct responsibility). Refer to Table 1-3 for the timing of the specific improvement.



## 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 Calimesa's Guidelines. (1)

### 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 6<sup>th</sup> 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 Calimesa 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 delay includes 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) 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.

**TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS**

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0 <sup>1</sup>
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

<sup>1</sup> If V/C is greater than 1.0 then LOS is F per HCM.

A saturation flow rate of 1900 has been utilized for all study area intersections located within the study area. 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.,  $PHF = \frac{[Hourly Volume]}{[4 \times Peak 15\text{-minute Flow Rate}]}$ ). 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 Calimesa 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 <sup>1</sup>
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

<sup>1</sup> 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 determine 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 Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (5)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The 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 traffic conditions and for all future analysis scenarios for existing unsignalized intersections. 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. Rural warrants have been used as posted speed limits on the major roadways with unsignalized intersections are over 40 miles per hour while urban warrants have been used where speeds are 40 miles per hour or below.

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. Traffic signal warrant analyses were performed for the following study area intersection shown on Table 2-4:

**TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS**

#	Intersection	#	Intersection
1	I-10 EB Ramps / Singleton Rd.	11	Calimesa Bl. / I-10 WB off-ramp
2	I-10 WB Ramps / Singleton Rd.	12	Roberts Rd. / Singleton Rd.
3	Calimesa Bl. / Singleton Rd.	13	Calimesa Bl. / PA-1 Dwy. 1
4	Beckwith Av. / Singleton Rd.	14	Calimesa Bl. / PA-1 Dwy. 2
5	Singleton Cyn. Rd. / Singleton Rd.	15	Calimesa Bl. / PA-1 Dwy. 3
8	I-10 EB Ramps / Cherry Valley Bl.	16	Calimesa Bl. / PA-1 Dwy. 4
9	I-10 WB Ramps / Cherry Valley Bl.	17	Calimesa Bl. / PA-2 Dwy.

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 *Opening Year Cumulative (2025) Traffic Conditions*, Section 6 *Interim Year Cumulative (2028) Traffic Conditions*, and Section 7 *Horizon Year (2045) Traffic Conditions* of this report. Traffic signal warrant analysis has not been conducted on intersections that are restricted to right-in/right-out access only as these locations would not be suitable for signalization due to inadequate spacing from adjacent intersections. 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

The traffic modeling and signal timing optimization software package SimTraffic has been utilized to assess the queues. 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. These random simulations generated by SimTraffic have been utilized to determine the 95<sup>th</sup> percentile queue lengths observed for each applicable turn lane. A SimTraffic simulation has been recorded up to 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 15-minute periods with 60-minute recording intervals.

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 95<sup>th</sup> percentile queue resulting from the Synchro progression analysis. The footnote from the Synchro output sheets indicates if the 95<sup>th</sup> percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95<sup>th</sup> percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95<sup>th</sup> percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The 95<sup>th</sup> percentile queue is derived from the average queue plus 1.65 standard deviations.

## **2.5 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)**

Minimum Acceptable LOS and associated definitions of intersection deficiencies has been obtained from each of the applicable surrounding jurisdictions.

### **2.5.1 CITY OF CALIMESA**

According to the City of Calimesa, LOS C is the minimum acceptable condition that should be maintained during the peak commute hours. However, a peak hour LOS of D, or lower, may be allowed on City-maintained roadway segments in commercial and employment areas or any combination of major highways, urban arterials, secondary highways, or freeway ramp intersections. For the purposes of this traffic study, LOS D is defined as the minimum acceptable condition for all signalized study area intersections and LOS C is defined as the minimum acceptable condition for all unsignalized study area intersection.

### **2.5.2 CALTRANS**

Senate Bill 743 (SB 743), approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) has recommended the use of vehicle miles traveled (VMT) as the replacement for automobile delay-based LOS. Caltrans acknowledges automobile delay will no longer be considered a CEQA impact for development projects and will use VMT as the metric for determining impacts on the State Highway System (SHS). However, LOS D has been utilized as the target LOS for Caltrans facilities, consistent with the County of Riverside.

## **2.6 DEFICIENCY CRITERIA**

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

### 2.6.1 SIGNALIZED INTERSECTIONS

Operational improvements would be required at study intersections under either of the following conditions:

- a) Any signalized study intersection consisting of two or more collectors or local roads that is operating at an acceptable LOS C or better without Project traffic in which the addition of Project traffic causes the intersection to degrade to a LOS D or worse.
- b) Any signalized study intersection consisting of two or more collector or local roads that is operating at LOS D or worse without Project traffic where the Project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.
- c) Any signalized study intersection consisting of one or more highway or arterial road that is operating at an acceptable LOS D or better without Project traffic in which the addition of Project traffic causes the intersection to degrade to a LOS E or F.
- d) Any signalized study intersection consisting of one or more highway or arterial road that is operating at LOS E or F without Project traffic where the Project increases delay by 5.0 or more seconds.

If either of the above conditions is satisfied, improvements should be identified that achieve the following:

- Improving traffic operations to LOS C or better for case a, above.
- Improving traffic operations to offset the increase in delay for case b or case d, above.
- Improving traffic operations to LOS D or better for case c, above.

### 2.6.2 UNSIGNALIZED INTERSECTIONS

Operational improvements would be required at study intersections under either case e, or both case f and case g, below:

- e) The addition of Project related traffic causes the intersection to degrade from an acceptable LOS C or better to LOS D or worse.
- f) The Project adds 5.0 seconds or more delay to an intersection that is already project to operate without project traffic at LOS D or worse.
- g) The intersection meets the peak hour traffic signal warrant under the addition of project traffic.

## 2.7 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the TUMF and/or DIF will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share contribution based on the Project's proportional share may be imposed in order to address the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the City Traffic Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval). The Project's fair share contribution is determined based on the following equation, which is the ratio of Project traffic to net new traffic (where net new traffic is the future traffic less existing traffic):

$$\text{Project Fair Share \%} = \text{Project Traffic} / (\text{2045 With Project Total Traffic} - \text{Existing Traffic})$$

For those recommended improvements that are included in the Oak Valley North Specific Plan, fair share for non-TUMF identified improvements should be calculated based on the average total AM and PM Project Scenario 1 trip generation and the average total AM and PM Oak Valley North project traffic to identify what percentage of trips the Project Scenario 1 contributes.

### 3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Calimesa General Plan Circulation Network, and a review of existing peak hour intersection operations, roadway segment operation, traffic signal warrant, and queuing analyses.

#### 3.1 EXISTING CIRCULATION NETWORK

Pursuant to the scoping agreement with City of Calimesa staff (Appendix 1.1), the study area includes a total of 7 existing and future intersections as shown previously on Exhibit 1-3, where the Project is anticipated to contribute 50 or more peak hour trips. Exhibit 3-1 illustrates the study area intersections located near the Project Scenario 1 and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

#### 3.2 CITY OF CALIMESA GENERAL PLAN CIRCULATION ELEMENT

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

**Urban Arterials** have a 134-foot right-of-way and accommodate 3 lanes in each direction with a raised median. Cherry Valley Boulevard (between Desert Lawn Drive and the I-10 Freeway Mainline), and Singleton Road (between Roberts Road and the I-10 Freeway Mainline) are classified as an Urban Arterials.

**Major Arterials** have a 92-foot right-of-way and accommodate 2 lanes in each direction, and a center turn lane. The following study area roadways within the City of Calimesa are classified as a Major Arterial:

- Calimesa Boulevard
- Singleton Road between Beckwith Avenue and the I-10 Freeway Mainline

**Arterials** have a 100-foot right-of-way and include a raised or painted median. Roberts Road is classified as an Arterial.

**Collectors** have a 52-foot right-of-way without median. Beckwith Avenue is classified as a Collector.

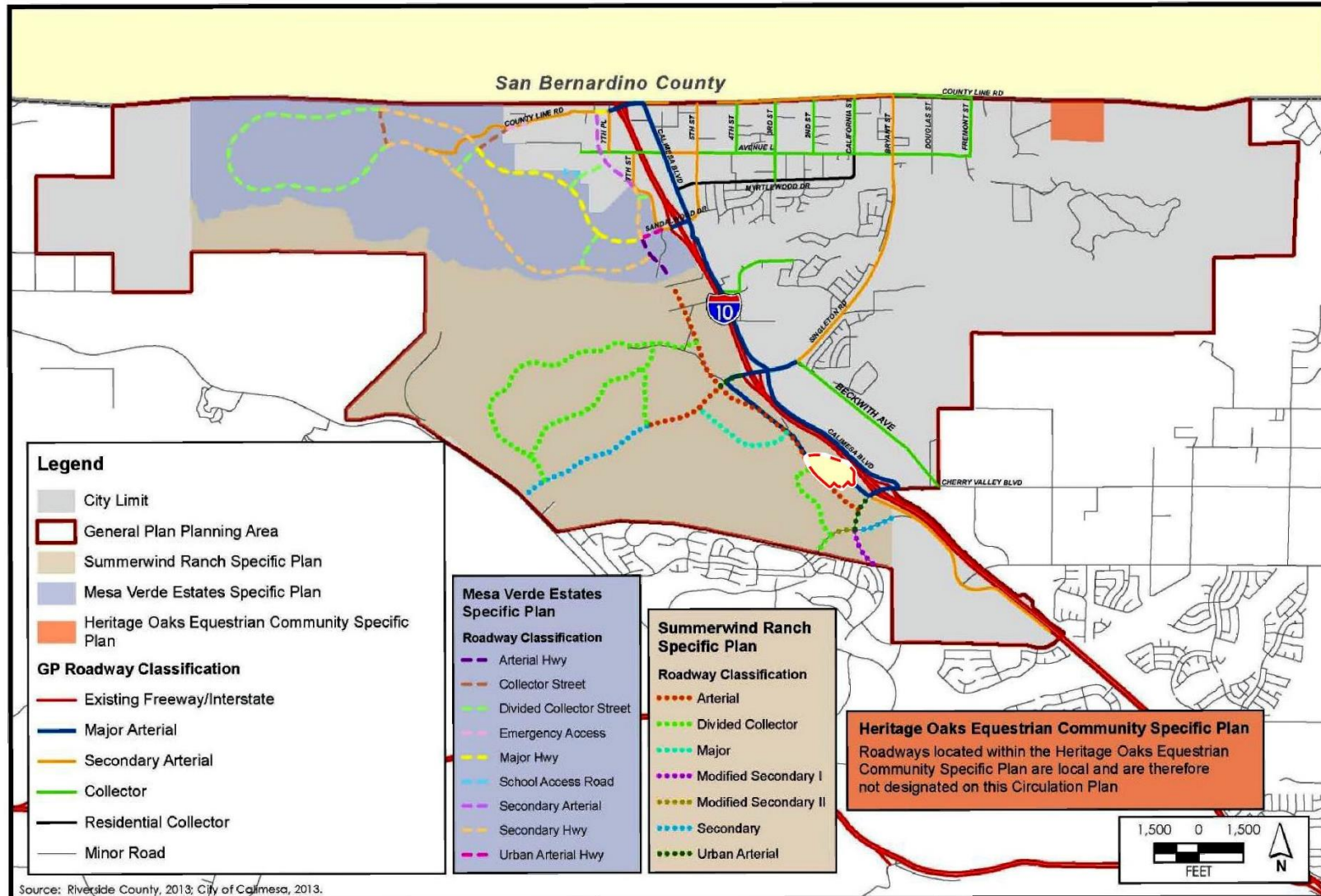
#### 3.3 BICYCLE & PEDESTRIAN FACILITIES

Exhibit 3-4 details the City of Calimesa's proposed multi-use trail system. The City of Calimesa General Plan Proposed Multi-Use Trail System shows an unknown trail type (called Singleton/Bryant Connector) along Singleton Road and Beckwith Avenue. Future bike trails and paseos are anticipated along Roberts Road and portions of Cherry Valley Boulevard. Exhibit 3-5 illustrates the existing pedestrian facilities near the Project site.





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



Site Boundary

**EXHIBIT 3-3: CITY OF CALIMESA GENERAL PLAN ROADWAY CROSS-SECTIONS**

Roadway Classification	Number of Lanes	Right-of-Way Width	Curb-to-Curb Width
<p>Residential Collector</p> <p>These roadways would provide a 40-foot curb-to-curb roadway within a 52-foot right-of-way. This functional classification is similar to a local street classification, although it would generally have less fronting land uses than a purely local street and would also function as a connection for a limited number of local trips to the arterial system.</p>	2	52 feet	40 feet
<p>Collector</p> <p>These streets would provide a 40-foot curb-to-curb roadway within a 52-foot right-of-way. This is sufficient to provide one lane in each direction with parking. Collector streets function as feeder routes to carry traffic from the arterial system to the local system, but should carry only very minimal levels of non-local through traffic.</p>	2	52 feet	40 feet
<p>Secondary Arterial</p> <p>These roadways would provide a 72-foot curb-to-curb roadway within an 88-foot right-of-way. This is sufficient width to provide two through lanes in each direction (plus a center left turn lane) without parking, or one lane in each direction (plus a center left turn lane) with parking. Secondary arterials would function in a similar</p>	2-4 center lane plus turn	88 feet	72 feet

Roadway Classification	Number of Lanes	Right-of-Way Width	Curb-to-Curb Width
<p>manner to major arterials except that secondary arterials carry less total traffic, less non-local through traffic, and a relatively greater proportion of local traffic. Secondary arterials are typically spaced at half-mile intervals between major arterials, or, where appropriate, depending on geographic and land use conditions.</p>			
<p>Major Arterial</p> <p>These roadways would provide a 76-foot curb-to-curb roadway within a 92-foot right-of-way upon full buildout. This is sufficient width to provide three lanes in each direction (plus a center left turn lane) without curbside parking, or two lanes in each direction (plus a center left turn lane) with curbside parking.</p>	4-6 center lane plus turn	92 feet	76 feet
<p>Specific Plan Streets</p> <p>These are defined as streets in an area to be covered in the future by a specific plan. The exact alignment, width and right-of-way of specific plan streets are not specified at this time, but will be determined based upon more detailed studies of proposed land use patterns and anticipated traffic volumes once the development plans are more fully described.</p>	Varies; see Specific Plan for details.	Varies; see Specific Plan for details.	Varies; see Specific Plan for details.

### 3.4 TRANSIT SERVICE

Pass Transit operates Commuter Link bus service in the Project vicinity. Transit service is reviewed and updated periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. Consistent with the City of Calimesa General Plan, new roadways should be designed to accommodate future transit services.

### 3.5 EXISTING (2022) 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 2022 when local schools were in session and operating on normal bell schedules. The Project Site is currently vacant and undeveloped except for two single family homes on the central and northern portions of the property. 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)

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 AM and PM peak hour study area intersection volumes are shown on Exhibits 3-6 and 3-7, respectively. Existing Sunday morning peak hour study area intersection volumes are shown on Exhibit 3-8.

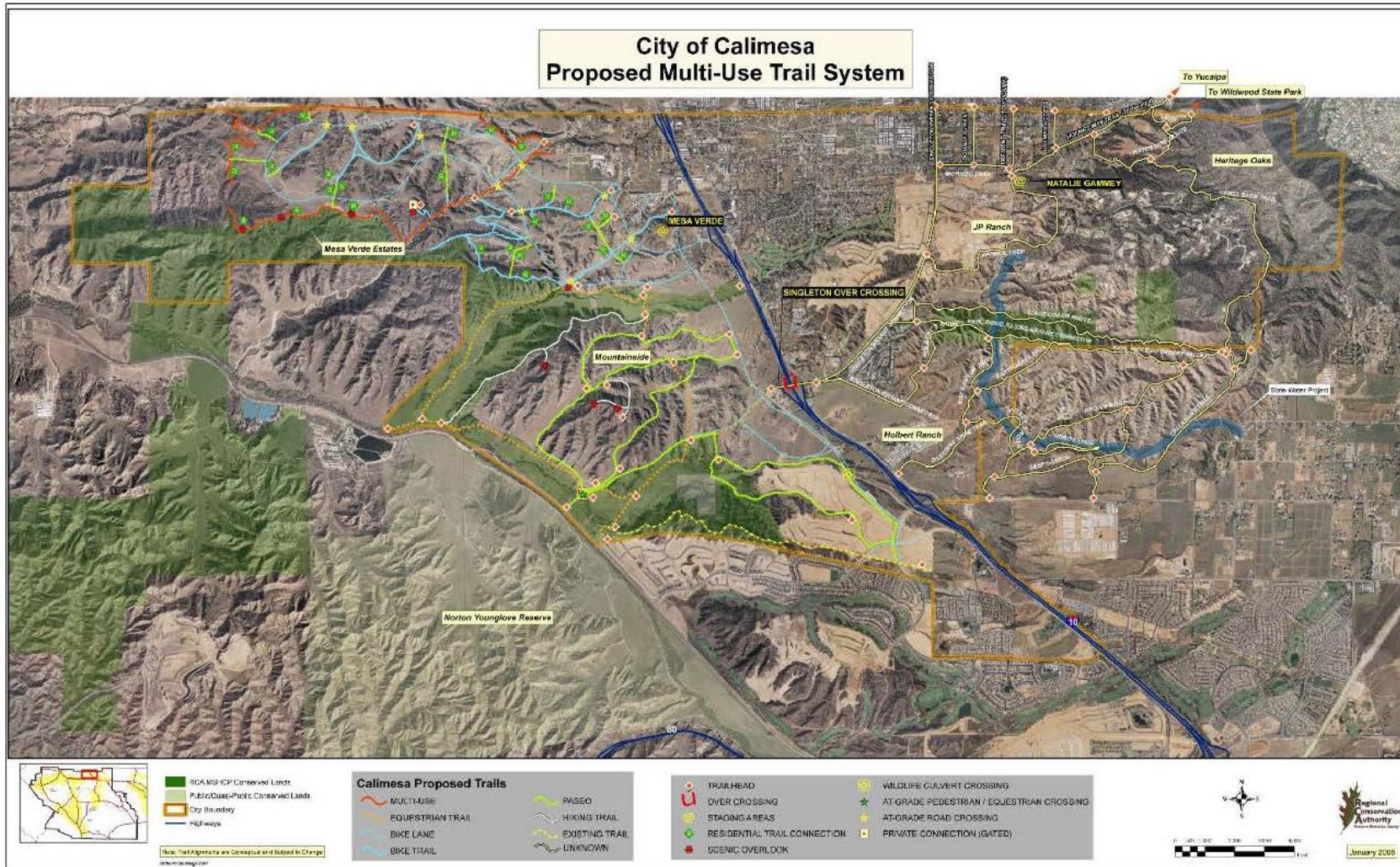
Existing weekday ADT volumes on arterial highways throughout the study area are shown on Exhibit 3-9. Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

$$\text{Weekday PM Peak Hour (Approach Volume + Exit Volume)} \times 12.987 = \text{Leg Volume}$$

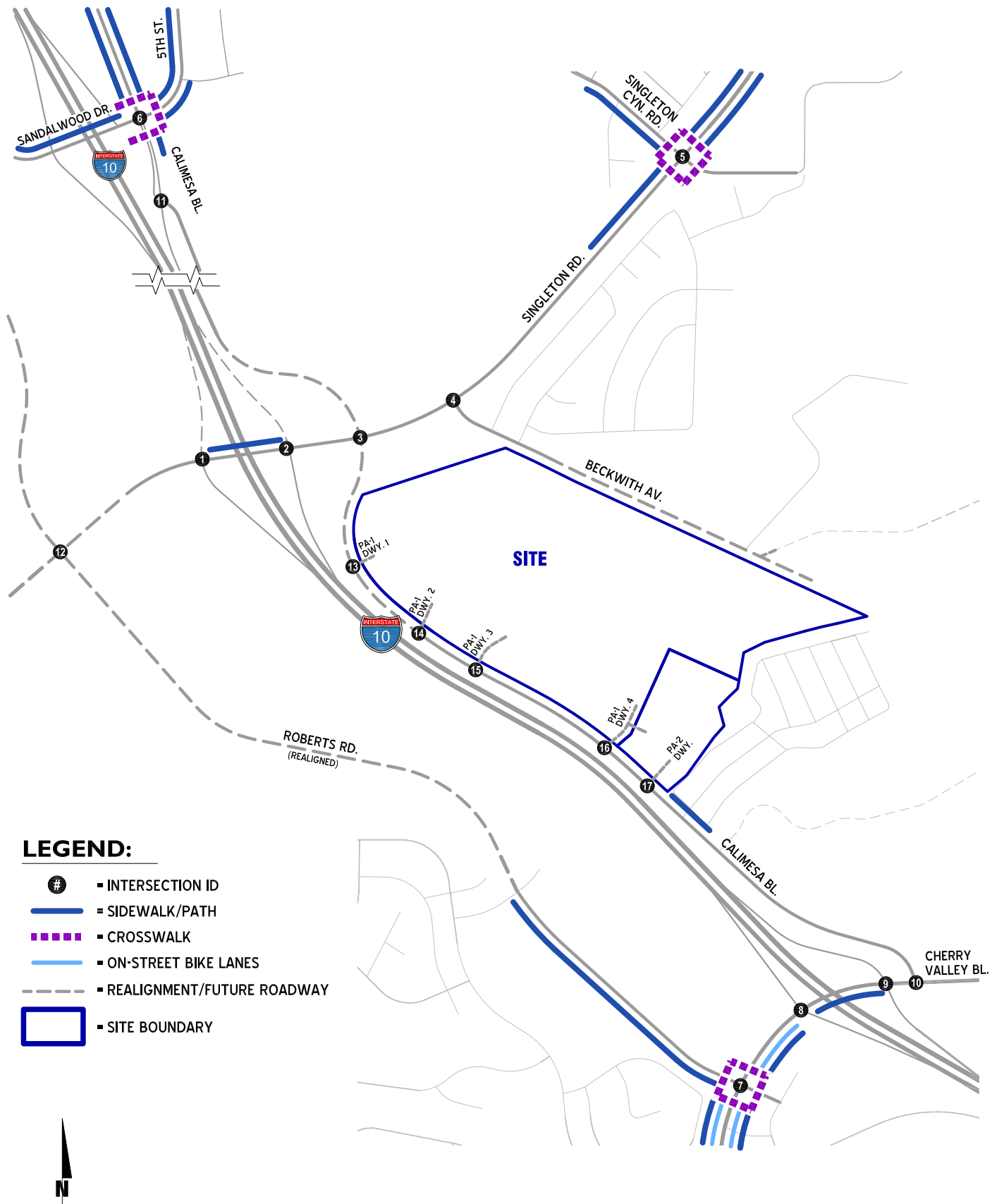
A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.70 percent. As such, the above equation utilizing a factor of 12.987 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.70 percent (i.e.,  $1/0.0770 = 12.987$ ) and was assumed to sufficiently estimate ADT volumes for planning-level analyses. This factor is consistent with that used for other traffic studies within the study area.



EXHIBIT 3-4: CITY OF CALIMESA PROPOSED MULTI-USE TRAIL SYSTEM

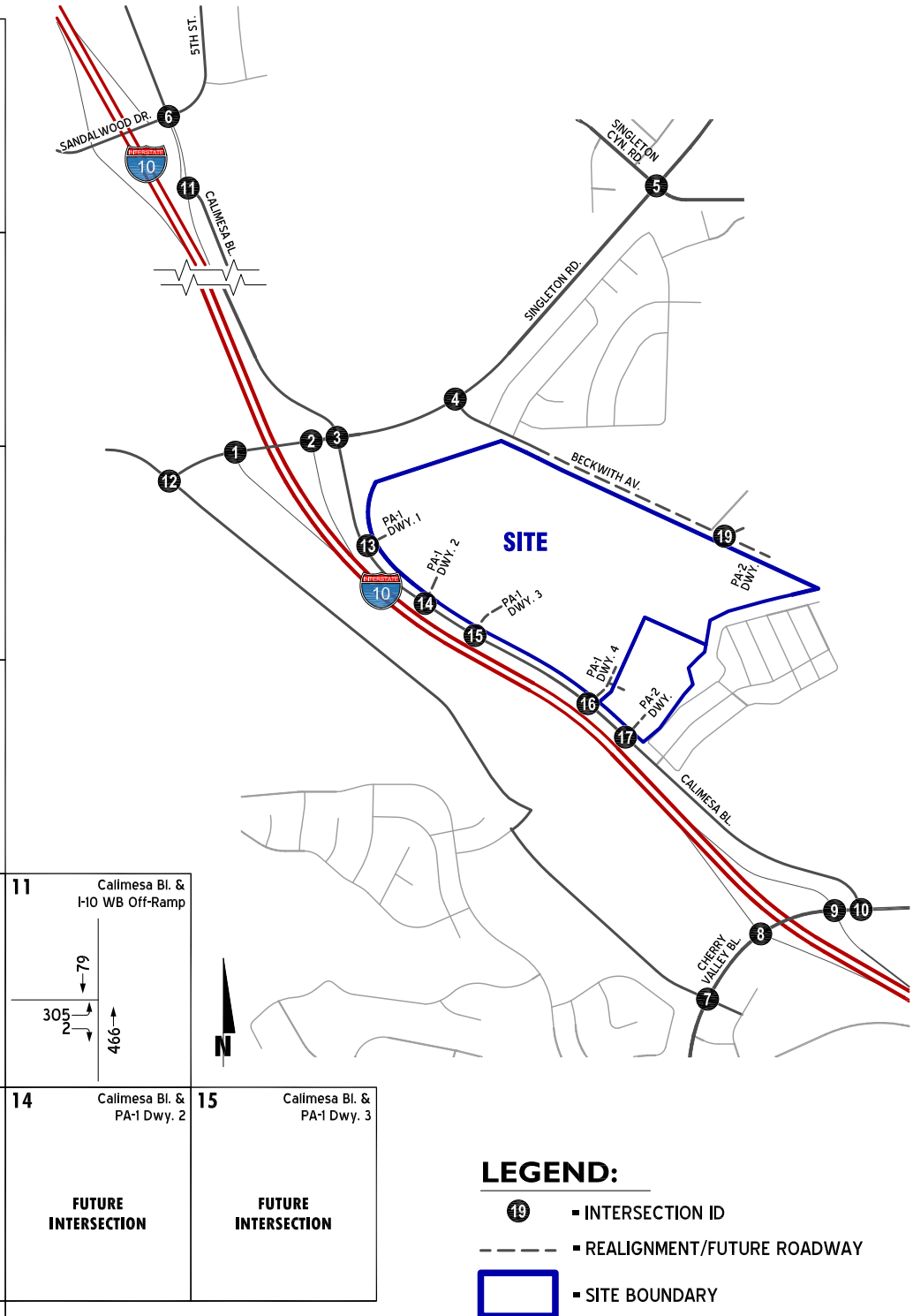


**EXHIBIT 3-5: EXISTING PEDESTRIAN FACILITIES**



**EXHIBIT 3-6: EXISTING (2022) AM PEAK HOUR INTERSECTION VOLUMES**

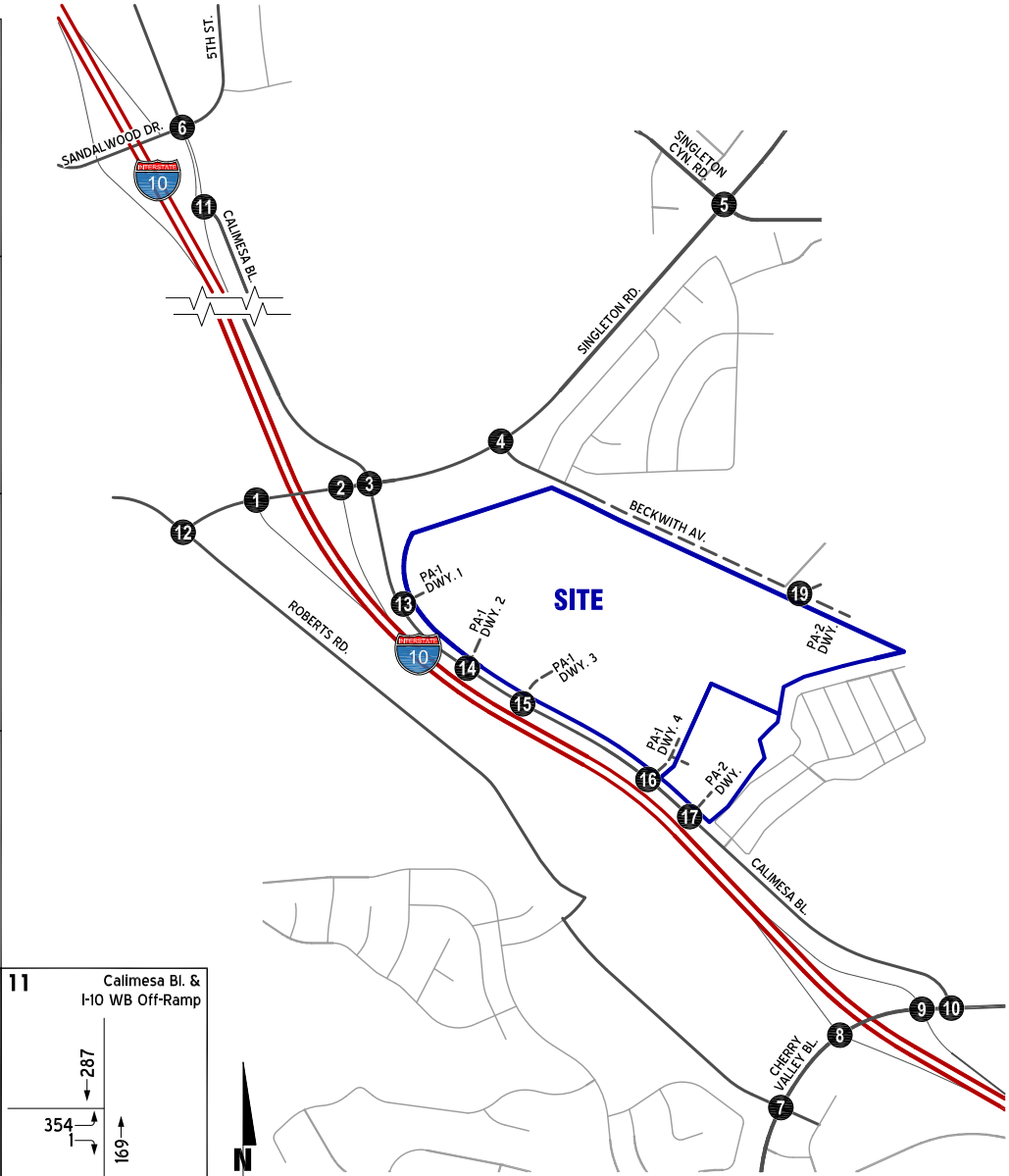
<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p> <p><b>FUTURE INTERSECTION</b></p>
<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>








**EXHIBIT 3-7: EXISTING (2022) PM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p> <p><b>FUTURE INTERSECTION</b></p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> <p><b>FUTURE INTERSECTION</b></p>



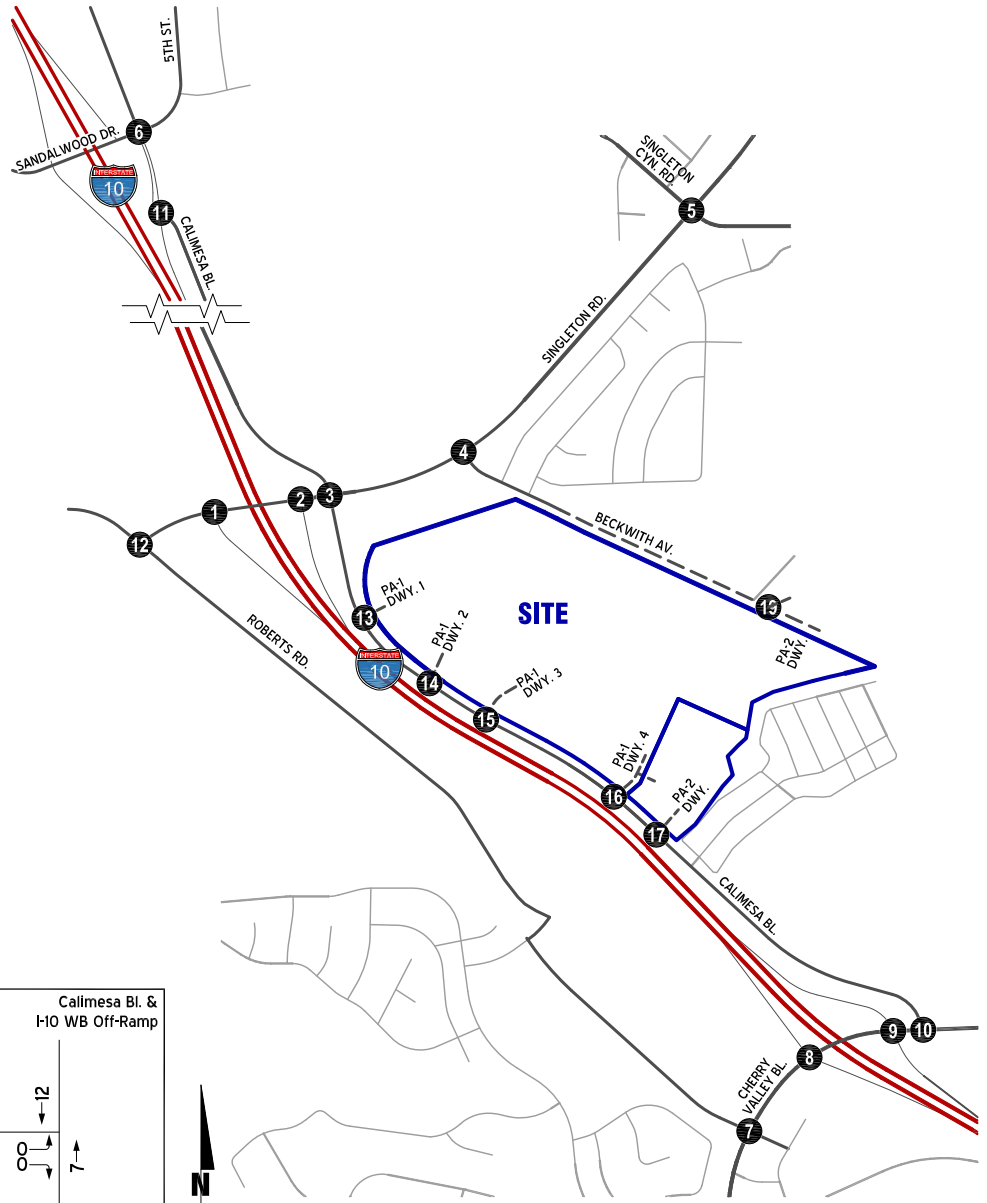
**LEGEND:**

-  INTERSECTION ID
-  REALIGNMENT/FUTURE ROADWAY
-  SITE BOUNDARY






**EXHIBIT 3-8: EXISTING (2022) SUNDAY MORNING PEAK HOUR INTERSECTION VOLUMES**

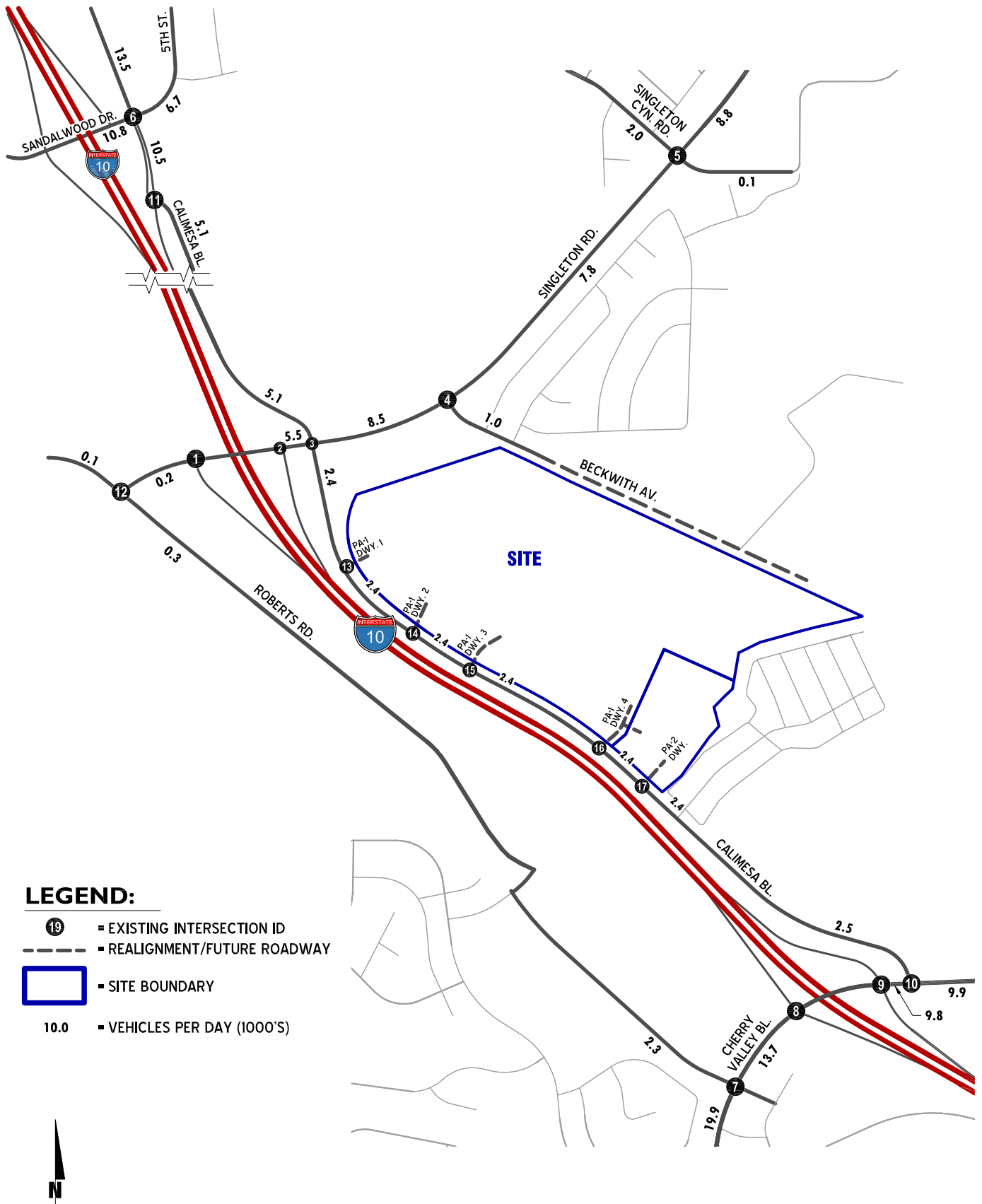
<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>	
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>	
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>	
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>	
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>	<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p> <p><b>FUTURE INTERSECTION</b></p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>



**LEGEND:**

-  INTERSECTION ID
-  REALIGNMENT/FUTURE ROADWAY
-  SITE BOUNDARY

**EXHIBIT 3-9: EXISTING (2022) AVERAGE DAILY TRAFFIC (ADT)**



### 3.6 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 existing study area intersections are currently operating at acceptable LOS during the peak hours, with the exception of the following intersections:

- I-10 EB Ramps & Cherry Valley Blvd. (#8) – LOS F AM and PM peak hours
- I-10 WB Ramps & Cherry Valley Blvd. (#9) – LOS F AM and PM peak hours
- Calimesa Blvd. & Cherry Valley Blvd. (#10) – LOS F AM peak hour

The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

### 3.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. Table 1-4 summarizes the results of this analysis. The following unsignalized study area intersections currently warrant a traffic signal for Existing traffic conditions:

- Calimesa Blvd. & Singleton Rd. (#3)
- I-10 EB Ramps & Cherry Valley Blvd. (#8)
- I-10 WB Ramps & Cherry Valley Blvd. (#9)

Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

**TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2022) CONDITIONS**

#	Intersection	Traffic Control <sup>1</sup>	Delay <sup>2</sup> (secs.)			Level of Service		
			Weekday AM	Weekday PM	Sunday	Weekday AM	Weekday PM	Sunday
1	I-10 EB Ramps / Singleton Rd.	CSS	0.0	0.0	0.0	A	A	A
2	I-10 WB Ramps / Singleton Rd.	CSS	10.6	9.7	9.7	B	A	A
3	Calimesa Bl. / Singleton Rd.	AWS	15.4	13.4	10.4	C	B	B
4	Beckwith Av. / Singleton Rd.	CSS	15.3	13.7	11.8	C	B	B
5	Singleton Cyn. Rd. / Singleton Rd.	AWS	10.8	9.6	8.9	B	A	A
6	Calimesa Bl. / Sandalwood Dr. - 5th St.	TS	40.2	33.8	32.6	D	C	C
7	Roberts Rd. / Cherry Valley Bl.	TS	16.5	18.8	20.0	B	B	B
8	I-10 EB Ramps / Cherry Valley Bl.	AWS	89.6	61.7	34.3	<b>F</b>	<b>F</b>	<b>D</b>
9	I-10 WB Ramps / Cherry Valley Bl.	AWS	105.1	59.2	30.4	<b>F</b>	<b>F</b>	<b>D</b>
10	Calimesa Bl. / Cherry Valley Bl.	CSS	58.7	18.7	14.1	<b>F</b>	C	B
11	Calimesa Bl. / I-10 WB off-ramp	AWS	20.9	16.5	14.7	C	C	B
12	Roberts Rd. / Singleton Rd.	CSS	8.5	8.5	8.4	A	A	A
13	Calimesa Bl. / PA-1 Dwy. 1		Future Intersection					
14	Calimesa Bl. / PA-1 Dwy. 2		Future Intersection					
15	Calimesa Bl. / PA-1 Dwy. 3		Future Intersection					
16	Calimesa Bl. / PA-1 Dwy. 4		Future Intersection					
17	Calimesa Bl. / PA-2 Dwy.		Future Intersection					

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

<sup>1</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop

<sup>2</sup> 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.

This page intentionally left blank

## 4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. For traffic analysis purposes, four scenarios are evaluated with the following land uses:

**a. Scenario 1:**

- 982,232 square feet of high-cube warehouse in four buildings (PA1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

**b. Scenario 2:**

- 982,232 square feet of parcel hub warehouse in four buildings (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

**c. Scenario 3 (Sunday Morning Analysis with PA 2 Church):**

- 982,232 square feet of high-cube warehouse (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- Church with 1,200 seats (PA 2).

Project occupancies for PA 1 is anticipated to occur in 2025. Project occupancies for both Pas 1 and 2 are anticipated to occur in 2028. A preliminary conceptual land use plan of which the traffic study will be based on is shown on Exhibit 1-2. Access will be accommodated to Calimesa Boulevard via 4 driveways for PA 1 and 1 driveway within PA 2. It should be noted that the southerly driveway on PA 1 will also serve as a shared access to PA 2. Each of the Project driveways will have full access (no turn restrictions). Regional access to the Project will be accommodated via the I-10 Freeway at Singleton Road.

### 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.

#### 4.1.1 PROJECT SCENARIO 1 (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)

In order to develop the traffic characteristics of the PA 1 high-cube warehouse scenario for the Proposed Project, trip-generation statistics published in the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) are used. The purpose of WSP 2019 study was to gather enough data to develop reliable trip generation rates for centers for use in traffic impact studies in the Inland Empire. In addition, the South Coast Air Quality Management District (SCAQMD) recommends the use of 0.64 truck trips per 1,000 square feet, which would account for variations in the future users.

For the Truck/Trailer Parking Lot land use, the ITE Trip Generation Manual does not currently have applicable trip generation rates. Estimates for the proposed truck/trailer parking lot land use have been developed using data collected at two facilities with operations similar to the Project. Table 1.1 of the Scope Attachment in Appendix 1.1 summarizes the count data collected at the sample truck/trailer parking lots. Appendix 1.1 also provides supporting count data at the two sample locations. A truck trailer lot can be used to drop off loaded trailers being exchanged from one tractor to another (this is to improve the efficiency of the delivery process). The drop lot can also be used to park empty trailers that are not currently in use and are either not currently needed for deliveries or waiting to be taken back to the port.

For the residential land use portion of Project Scenario 1, the trip generation rates published by the Institute of Transportation Engineers (ITE) as provided in their [Trip Generation Manual](#), 11<sup>th</sup> Edition (2021) have been utilized. (2)

Passenger car equivalents (PCEs) allow the typical “real-world” mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses.

For 2025 conditions, Table 4-1 shows the vehicle trip generation rates for PA1 with High-Cube Warehouse & Truck/Trailer Lot, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. Table 4-2 presents the passenger-car-equivalent (PCE) trip generation rates for PA1 with High-Cube Warehouse & Truck/Trailer Lot with the resulting PCE daily and peak hour trip generation estimates under 2025 conditions. As shown on Table 4-2, PA1 with High-Cube Warehouse & Truck/Trailer Lot is anticipated to generate a total of 5,570 PCE trip-ends per day with 295 AM peak vehicle hour trips and 434 PM peak hour vehicle trips.

For 2028 Project Scenario 1 conditions, Table 4-3 shows the vehicle trip generation rates for the additional residential units (PA 2), in addition to PA 1 with High-Cube Warehouse & Truck/Trailer Lot that was evaluated for 2025 conditions, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. Table 4-4 presents the PCE daily and peak hour trip generation estimates with buildout of the Project. As shown on Table 4-4, Project Scenario 1 is anticipated to generate a total of 7,073 PCE trip-ends per day with 384 AM peak vehicle hour trips and 547 PM peak hour vehicle trips.

#### **4.1.2 PROJECT SCENARIO 2 (PA1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)**

For PA 1 with Parcel Hub Warehouse & Truck/Trailer Lot, trip-generation statistics published by the Institute of Transportation Engineers (ITE) as provided in their [Trip Generation Manual](#), 11<sup>th</sup> Edition (2021) for ITE land use code 156 (high-cube parcel hub warehouse) has been utilized.

For the Truck/Trailer Parking Lot land use, similar to Scenario 1, trip generation estimates for the proposed lot have been developed using data collected at two other facilities with operations similar to the Project (see Attachment A).

**TABLE 4-1: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.094	0.028	0.122	0.046	0.119	0.165	2.129	
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489	
		2 to 4-Axle+ Trucks	0.028	0.008	0.036	0.014	0.036	0.050	0.640	
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.714	
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079	
		2-Axle Trucks	0.080	0.000	0.080	0.111	0.222	0.333	4.207	
		3-Axle Trucks	0.190	0.793	0.983	0.349	0.238	0.587	10.968	
		4-Axle+ Trucks	0.190	0.318	0.508	1.111	0.301	1.412	15.460	

Trip Generation Results											
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
				In	Out	Total	In	Out	Total		
1	High-Cube Warehouse	--	982.232 TSF								
	- Passenger Cars			64	20	84	32	81	113	1,463	
	- Truck Trips (Actual)			28	8	36	14	35	49	629	
	High Cube Parcel Warehouse Subtotal			92	28	120	46	116	162	2,092	
	Truck/Trailer Parking Lot	--	25.62 AC								
	- Passenger Cars			2	8	10	11	12	23	309	
	- Truck Trips										
	2-axle:			2	0	2	3	6	9	108	
	3-axle:			5	20	25	9	6	15	281	
	4+-axle:	5	8	13	28	8	36	396			
	- Net Truck Trips (Actual Vehicles)	12	28	40	40	20	60	785			
Truck/Trailer Parking Lot Subtotal			14	36	50	51	32	83	1,094		
Passenger Cars Subtotal			66	28	94	43	93	136	1,772		
Truck Trips Subtotal			40	36	76	54	55	109	1,414		
<b>OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)<sup>5</sup></b>				<b>106</b>	<b>64</b>	<b>170</b>	<b>97</b>	<b>148</b>	<b>245</b>	<b>3,186</b>	

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Source: TUMF High-Cube Warehouse Trip Generation Study. Prepared by WSP, January 2019.

Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship

Truck Daily Rate Source: Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center.

Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.

<sup>4</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>5</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXRjobs\13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2025\_Proposed\_TG - ACTUAL



**TABLE 4-2: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.150	0.045	0.195	0.075	0.190	0.265	3.409
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489
		2 to 4-Axle+ Trucks (PCE = 3.0)	0.084	0.025	0.109	0.042	0.108	0.150	1.920
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Warehouse	--	982.232 TSF							
	- Passenger Cars			64	20	84	32	81	113	1,463
	- Truck Trips (PCE = 3.0)			83	25	108	41	106	147	1,886
	High Cube Parcel Warehouse Subtotal			147	45	192	73	187	260	3,349
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
	- Truck Trips									
	2-axle (PCE = 1.5):			3	0	3	4	9	13	162
	3-axle (PCE = 2.0):			10	41	51	18	12	30	562
	4+-axle (3.0):	15	24	39	85	23	108	1,188		
	- Net Truck Trips (PCE)	28	65	93	107	44	151	1,912		
Truck/Trailer Parking Lot Subtotal			30	73	103	118	56	174	2,221	
Passenger Cars Subtotal			66	28	94	43	93	136	1,772	
Truck Trips Subtotal			111	90	201	148	150	298	3,798	
<b>OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (PCE)<sup>5</sup></b>				<b>177</b>	<b>118</b>	<b>295</b>	<b>191</b>	<b>243</b>	<b>434</b>	<b>5,570</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Source: *TUMF High-Cube Warehouse Trip Generation Study*. Prepared by WSP, January 2019.

Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship

Truck Daily Rate Source: *Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center*.

Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.

<sup>4</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>5</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2025\_Proposed\_TG - PCE

**TABLE 4-3: INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.094	0.028	0.122	0.046	0.119	0.165	2.129
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489
		2 to 4-Axle+ Trucks	0.028	0.008	0.036	0.014	0.036	0.050	0.640
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.71
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079
		2-Axle Trucks	0.080	0.000	0.080	0.111	0.222	0.333	4.207
		3-Axle Trucks	0.190	0.793	0.983	0.349	0.238	0.587	10.968
		4-Axle+ Trucks	0.190	0.318	0.508	1.111	0.301	1.412	15.460
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Warehouse	--	982.232 TSF							
	- Passenger Cars			64	20	84	32	81	113	1,463
	- Truck Trips (Actual)			28	8	36	14	35	49	629
	High Cube Parcel Warehouse Subtotal			92	28	120	46	116	162	2,092
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
	- Truck Trips									
	2-axle:			2	0	2	3	6	9	108
	3-axle:			5	20	25	9	6	15	281
	4+-axle:			5	8	13	28	8	36	396
- Net Truck Trips (Actual Vehicles)			12	28	40	40	20	60	785	
Truck/Trailer Parking Lot Subtotal			14	36	50	51	32	83	1,094	
Passenger Cars Subtotal			66	28	94	43	93	136	1,772	
Truck Trips Subtotal			40	36	76	54	55	109	1,414	
<b>Planning Area 1 Subtotal (Actual Vehicles)<sup>5</sup></b>			<b>106</b>	<b>64</b>	<b>170</b>	<b>97</b>	<b>148</b>	<b>245</b>	<b>3,186</b>	
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503
<b>INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL) TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>				<b>128</b>	<b>131</b>	<b>259</b>	<b>168</b>	<b>190</b>	<b>358</b>	<b>4,689</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Source: *TUMF High-Cube Warehouse Trip Generation Study*. Prepared by WSP, January 2019.

Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship

Truck Daily Rate Source: *Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center*.

Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.

<sup>4</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>5</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXR\jobs\_13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2028\_Proposed\_TG - ACTUAL

**TABLE 4-4: INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)  
TRIP GENERATION SUMMARY  
PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.150	0.045	0.195	0.075	0.190	0.265	3.409
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489
		2 to 4-Axle+ Trucks (PCE = 3.0)	0.084	0.025	0.109	0.042	0.108	0.150	1.920
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Trip Generation Results											
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
				In	Out	Total	In	Out	Total		
1	High-Cube Warehouse	--	982.232 TSF								
	- Passenger Cars			64	20	84	32	81	113	1,463	
	- Truck Trips (PCE = 3.0)			83	25	108	41	106	147	1,886	
	High Cube Parcel Warehouse Subtotal			147	45	192	73	187	260	3,349	
	Truck/Trailer Parking Lot	--	25.62 AC								
	- Passenger Cars			2	8	10	11	12	23	309	
	- Truck Trips										
	2-axle (PCE = 1.5):			3	0	3	4	9	13	162	
	3-axle (PCE = 2.0):			10	41	51	18	12	30	562	
	4+axle (3.0):	15	24	39	85	23	108	1,188			
- Net Truck Trips (PCE)	28	65	93	107	44	151	1,912				
Truck/Trailer Parking Lot Subtotal			30	73	103	118	56	174	2,221		
Passenger Cars Subtotal			66	28	94	43	93	136	1,772		
Truck Trips Subtotal			111	90	201	148	150	298	3,798		
<b>Planning Area 1 Subtotal (PCE)<sup>5</sup></b>			<b>177</b>	<b>118</b>	<b>295</b>	<b>191</b>	<b>243</b>	<b>434</b>	<b>5,570</b>		
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503	
<b>INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL) TOTAL EXTERNAL TRIPS (PCE)</b>				<b>199</b>	<b>185</b>	<b>384</b>	<b>262</b>	<b>285</b>	<b>547</b>	<b>7,073</b>	

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Source: *TUMF High-Cube Warehouse Trip Generation Study*. Prepared by WSP, January 2019.

Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship

Truck Daily Rate Source: *Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center*.

Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.

<sup>4</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>5</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXR\jobs\_13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2028\_Proposed\_TG - PCE

Refinements to the raw trip generation estimates for the high-cube parcel hub warehouse have been made to provide a more detailed breakdown of trips by vehicle mix. Data regarding the vehicle mix has been obtained from the High Cube Warehouse Vehicle Trip Generation Analysis (ITE, October 2016). The ITE 2016 vehicle trip generation analysis provides vehicle mix datasets for Cold Storage Warehouse uses, which consists of 32.2% trucks for daily trips, 30.8% trucks for AM peak hour trips and 21.7% trucks for PM peak hour trips. The South Coast Air Quality Management (SCAQMD) recommended truck mix for each axle type is utilized for 2- axle, 3-axle, and 4+-axle trucks.

For 2025 conditions, Table 4-5 shows the vehicle trip generation rates for PA 1 with Parcel Hub Warehouse & Truck/Trailer Lot, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. Table 4-6 presents the PCE trip generation rates for PA 1 with Parcel Hub Warehouse & Truck/Trailer Lot with the resulting PCE daily and peak hour trip generation estimates. As shown on Table 4-6, PA 1 with Parcel Hub Warehouse & Truck/Trailer Lot is anticipated to generate a total of 9,026 PCE trip-ends per day with 1,114 AM peak vehicle hour trips and 1,016 PM peak hour vehicle trips.

For 2028 Project Scenario 2 conditions, Table 4-7 shows the vehicle trip generation rates for the additional residential units (PA 2), in addition to PA 1 with Parcel Hub Warehouse & Truck/Trailer Lot that was evaluated for 2025 conditions, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. Table 4-8 presents the PCE daily and peak hour trip generation estimates with buildout of the Project. As shown on Table 4-7, Project Scenario 2 is anticipated to generate a total of 10,529 PCE trip-ends per day with 1,203 AM peak vehicle hour trips and 1,129 PM peak hour vehicle trips.

#### **4.1.2 PROJECT SCENARIO 3, SUNDAY MORNING (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 CHURCH)**

For Project Scenario 3, Sunday morning analysis, trip generation rates have been adjusted to reflect Sunday conditions instead of average weekday patterns.

For 2028 conditions, Table 4-9 shows the vehicle trip generation rates for the Sunday morning analysis with PA 2 Church, as well as the vehicle trip generation summary with Sunday morning peak hour trip generation estimates. Table 4-10 presents the PCE trip generation rates for the Sunday morning scenario. Table 4-10 also shows the resulting PCE Sunday peak hour trip generation estimates with buildout of the Project. As shown on Table 4-10, the Project is anticipated to generate a total of 699 Sunday morning peak hour vehicle trips with PA2 developed as a church.

## **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.

For 2025 conditions, the trip distribution patterns for the four warehouse buildings and truck/trailer parking lot in PA 1 are shown on Exhibits 4-1 and 4-2, respectively.

For 2028 conditions, the trip distribution patterns for PA's 1 and 2 are shown on Exhibits 4-3 through 4-6.

For the Sunday morning analysis with PA 2 Church, the PA 2 Sunday morning trip distribution pattern is shown on Exhibit 4-6.

The Project trip distribution patterns were reviewed and approved by the City of Calimesa as part of the traffic study scoping process (see Appendix 1.1).

### **4.3 MODAL SPLIT**

The potential for Project trips (non-truck) 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.

### **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.

The 2025 Project Only peak hour volumes for PA1 with High-Cube Warehouse & Truck/Trailer Lot are shown on Exhibits 4-7 and 4-8. 2025 Project Only peak hour volumes for PA1 with High-Cube Warehouse & Truck/Trailer Lot ADT volumes are shown on Exhibit 4-9.

The 2025 Project Only peak hour volumes for PA1 with Parcel Hub Warehouse & Truck/Trailer Lot are shown on Exhibits 4-10 and 4-11. 2025 Project Only peak hour volumes for PA1 with Parcel Hub Warehouse & Truck/Trailer Lot ADT volumes are shown on Exhibit 4-12.

The 2028 Project Only peak hour volumes for buildout of the Project Scenario 1 are shown on Exhibits 4-13 and 4-14. 2028 Project Only peak hour volumes for buildout of the Project Scenario 1 ADT volumes are shown on Exhibit 4-15.

The 2028 Project Only peak hour volumes for project buildout with the Project Scenario 2 are shown on Exhibits 4-16 and 4-17. 2028 Project Only peak hour volumes for project buildout with the Project Scenario 2 ADT volumes are shown on Exhibit 4-18.

The project buildout 2028 Scenario 3, Sunday Morning Project Only peak hour volumes with PA2 developed as a church are shown on Exhibit 4-19.

**TABLE 4-5: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.350	0.350	0.700	0.435	0.205	0.640	4.630
Passenger Cars (69.2% AM, 78.3% PM, 67.8% Daily)			0.242	0.243	0.485	0.341	0.161	0.502	3.139
2-Axle Trucks (5.10% AM, 3.70% PM, 5.40% Daily)			0.018	0.018	0.036	0.016	0.007	0.023	0.250
3-Axle Trucks (6.40% AM, 4.60% PM, 6.70% Daily)			0.022	0.022	0.045	0.020	0.009	0.029	0.309
4-Axle+ Trucks (19.30% AM, 13.40% PM, 20.10% Daily)			0.067	0.067	0.134	0.059	0.028	0.087	0.933
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.714
Passenger Cars			0.080	0.302	0.382	0.429	0.461	0.890	12.079
2-Axle Trucks			0.080	0.000	0.080	0.111	0.222	0.333	4.207
3-Axle Trucks			0.190	0.793	0.983	0.349	0.238	0.587	10.968
4-Axle+ Trucks			0.190	0.318	0.508	1.111	0.301	1.412	15.460

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF							
	- Passenger Cars			238	239	477	335	158	493	3,083
	- Truck Trips									
	Truck Trips (2-axle):			18	18	36	15	7	22	246
	Truck Trips (3-axle):			22	22	44	20	9	29	303
	Truck Trips (4+-axle):			65	66	131	58	28	86	917
	- Net Truck Trips (Actual Vehicles)			105	106	211	93	44	137	1,466
	High Cube Parcel Warehouse Subtotal			343	345	688	428	202	630	4,549
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
	- Truck Trips									
	2-axle:			2	0	2	3	6	9	108
3-axle:			5	20	25	9	6	15	281	
4+-axle:			5	8	13	28	8	36	396	
- Net Truck Trips (Actual Vehicles)			12	28	40	40	20	60	785	
Truck/Trailer Parking Lot Subtotal			14	36	50	51	32	83	1,094	
Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
Truck Trips Subtotal			117	134	251	133	64	197	2,251	
<b>OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>				<b>357</b>	<b>381</b>	<b>738</b>	<b>479</b>	<b>234</b>	<b>713</b>	<b>5,643</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook Third Edition (September 2017).

<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).

<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

<sup>6</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>7</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594\_Report.xlsx\2025\_HC Parcel Hub\_TG - ACTUAL

**TABLE 4-6: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.514	0.515	1.029	0.582	0.274	0.856	6.929
		Passenger Cars	0.242	0.243	0.485	0.341	0.161	0.502	3.139
		2-Axle Trucks (PCE = 1.5)	0.027	0.027	0.054	0.024	0.011	0.035	0.375
		3-Axle Trucks (PCE = 2.0)	0.044	0.044	0.088	0.040	0.018	0.058	0.616
		4-Axle+ Trucks (PCE = 3.0)	0.201	0.201	0.402	0.177	0.084	0.261	2.799
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380

Trip Generation Results											
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
				In	Out	Total	In	Out	Total		
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF								
	- Passenger Cars			238	239	477	335	158	493	3,083	
	- Truck Trips										
				<i>Truck Trips (2-axle):</i>	27	27	54	24	11	35	368
				<i>Truck Trips (3-axle):</i>	43	43	86	39	18	57	605
				<i>Truck Trips (4+-axle):</i>	197	197	394	174	83	257	2,749
				- Net Truck Trips (Actual Vehicles)	267	267	534	237	112	349	3,722
		High Cube Parcel Warehouse Subtotal			505	506	1,011	572	270	842	6,805
		Truck/Trailer Parking Lot	--	25.62 AC							
		- Passenger Cars			2	8	10	11	12	23	309
		- Truck Trips									
				<i>2-axle (PCE = 1.5):</i>	3	0	3	4	9	13	162
			<i>3-axle (PCE = 2.0):</i>	10	41	51	18	12	30	562	
			<i>4+-axle (3.0):</i>	15	24	39	85	23	108	1,188	
	- Net Truck Trips (PCE)			28	65	93	107	44	151	1,912	
	Truck/Trailer Parking Lot Subtotal			30	73	103	118	56	174	2,221	
	Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
	Truck Trips Subtotal			295	332	627	344	156	500	5,634	
<b>OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (PCE)</b>				<b>535</b>	<b>579</b>	<b>1,114</b>	<b>690</b>	<b>326</b>	<b>1,016</b>	<b>9,026</b>	

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook Third Edition (September 2017).

<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).

<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

<sup>6</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>7</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2025\_HC Parcel Hub\_TG - PCE

**TABLE 4-7: INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.350	0.350	0.700	0.435	0.205	0.640	4.630	
Passenger Cars (69.2% AM, 78.3% PM, 67.8% Daily)			0.242	0.243	0.485	0.341	0.161	0.502	3.139	
2-Axle Trucks (5.10% AM, 3.70% PM, 5.40% Daily)			0.018	0.018	0.036	0.016	0.007	0.023	0.250	
3-Axle Trucks (6.40% AM, 4.60% PM, 6.70% Daily)			0.022	0.022	0.045	0.020	0.009	0.029	0.309	
4-Axle+ Trucks (19.30% AM, 13.40% PM, 20.10% Daily)			0.067	0.067	0.134	0.059	0.028	0.087	0.933	
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.714	
Passenger Cars			0.080	0.302	0.382	0.429	0.461	0.890	12.079	
2-Axle Trucks			0.080	0.000	0.080	0.111	0.222	0.333	4.207	
3-Axle Trucks			0.190	0.793	0.983	0.349	0.238	0.587	10.968	
4-Axle+ Trucks			0.190	0.318	0.508	1.111	0.301	1.412	15.460	
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74	

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF							
	- Passenger Cars			238	239	477	335	158	493	3,083
	- Truck Trips									
	Truck Trips (2-axle):			18	18	36	15	7	22	246
	Truck Trips (3-axle):			22	22	44	20	9	29	303
	Truck Trips (4+-axle):			65	66	131	58	28	86	917
	- Net Truck Trips (Actual Vehicles)			105	106	211	93	44	137	1,466
	High Cube Parcel Warehouse Subtotal			343	345	688	428	202	630	4,549
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
- Truck Trips										
2-axle:			2	0	2	3	6	9	108	
3-axle:			5	20	25	9	6	15	281	
4+-axle:			5	8	13	28	8	36	396	
- Net Truck Trips (Actual Vehicles)			12	28	40	40	20	60	785	
Truck/Trailer Parking Lot Subtotal			14	36	50	51	32	83	1,094	
Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
Truck Trips Subtotal			117	134	251	133	64	197	2,251	
<b>Planning Area 1 Subtotal (Actual Vehicles)<sup>7</sup></b>			<b>357</b>	<b>381</b>	<b>738</b>	<b>479</b>	<b>234</b>	<b>713</b>	<b>5,643</b>	
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503
<b>INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL) TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>				<b>379</b>	<b>448</b>	<b>827</b>	<b>550</b>	<b>276</b>	<b>826</b>	<b>7,146</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook, Third Edition (September 2017).

<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).

<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

<sup>6</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>7</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2028\_HC Parcel Hub\_TG - ACTUAL



**TABLE 4-8: INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)**  
**TRIP GENERATION SUMMARY**  
**PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.514	0.515	1.029	0.582	0.274	0.856	6.929	
		Passenger Cars	0.242	0.243	0.485	0.341	0.161	0.502	3.139	
		2-Axle Trucks (PCE = 1.5)	0.027	0.027	0.054	0.024	0.011	0.035	0.375	
		3-Axle Trucks (PCE = 2.0)	0.044	0.044	0.088	0.040	0.018	0.058	0.616	
		4-Axle+ Trucks (PCE = 3.0)	0.201	0.201	0.402	0.177	0.084	0.261	2.799	
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706	
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079	
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311	
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936	
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380	
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74	

Trip Generation Results											
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
				In	Out	Total	In	Out	Total		
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF								
	- Passenger Cars			238	239	477	335	158	493	3,083	
	- Truck Trips										
				Truck Trips (2-axle):	27	27	54	24	11	35	368
				Truck Trips (3-axle):	43	43	86	39	18	57	605
				Truck Trips (4+ axle):	197	197	394	174	83	257	2,749
				- Net Truck Trips (Actual Vehicles)	267	267	534	237	112	349	3,722
		High Cube Parcel Warehouse Subtotal			505	506	1,011	572	270	842	6,805
		Truck/Trailer Parking Lot	--	25.62 AC							
		- Passenger Cars			2	8	10	11	12	23	309
		- Truck Trips									
				2-axle (PCE = 1.5):	3	0	3	4	9	13	162
				3-axle (PCE = 2.0):	10	41	51	18	12	30	562
			4+ axle (3.0):	15	24	39	85	23	108	1,188	
	- Net Truck Trips (PCE)			28	65	93	107	44	151	1,912	
	Truck/Trailer Parking Lot Subtotal			30	73	103	118	56	174	2,221	
	Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
	Truck Trips Subtotal			295	332	627	344	156	500	5,634	
	<b>Planning Area 1 Subtotal (PCE)<sup>7</sup></b>			<b>535</b>	<b>579</b>	<b>1,114</b>	<b>690</b>	<b>326</b>	<b>1,016</b>	<b>9,026</b>	
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503	
<b>INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)</b>				<b>557</b>	<b>646</b>	<b>1,203</b>	<b>761</b>	<b>368</b>	<b>1,129</b>	<b>10,529</b>	
<b>TOTAL EXTERNAL TRIPS (PCE)</b>											

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook, Third Edition (September 2017).

<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).

<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

<sup>6</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Appendix A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>7</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2028\_HC Parcel Hub\_TG - PCE

**TABLE 4-9: SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3  
(PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 CHURCH)  
TRIP GENERATION SUMMARY ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>						
Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour			
			In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.028	0.009	0.037	
		Passenger Cars	0.020	0.006	0.026	
		2 to 4-Axle+ Trucks	0.008	0.003	0.011	
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.162	0.424	0.586	
		Passenger Cars	0.024	0.091	0.115	
		2-Axle Trucks	0.024	0.000	0.024	
		3-Axle Trucks	0.057	0.238	0.295	
		4-Axle+ Trucks	0.057	0.095	0.152	
Church	560	1,200 SEATS	0.25	0.26	0.51	

Trip Generation Results						
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour		
				In	Out	Total
1	High-Cube Warehouse	--	982.232 TSF	19	6	25
	- Passenger Cars			8	2	10
	- Truck Trips (Actual)					
	High Cube Parcel Warehouse Subtotal			27	8	35
	Truck/Trailer Parking Lot	--	25.62 AC			
	- Passenger Cars			1	2	3
	- Truck Trips					
	2-axle:			1	0	1
	3-axle:			1	6	7
	4+-axle:	1	2	3		
- Net Truck Trips (Actual Vehicles)			3	8	11	
Truck/Trailer Parking Lot Subtotal			4	10	14	
Passenger Cars Subtotal			20	8	28	
Truck Trips Subtotal			11	10	21	
<b>Planning Area 1 Subtotal (Actual Vehicles)<sup>5</sup></b>			<b>31</b>	<b>18</b>	<b>49</b>	
2	Church	560	1,200 SEATS	300	312	612
<b>SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 CHURCH) TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>				<b>331</b>	<b>330</b>	<b>661</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; AC = Acres

<sup>3</sup> Sunday rates for warehouse use have been estimated based on weekday rates to reflect Sunday conditions.

<sup>4</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXR\jobs\_13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2028\_Proposed+Church - ACTUAL

**TABLE 4-10: SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3  
(PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 CHURCH)  
TRIP GENERATION SUMMARY PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>						
Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour			
			In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.045	0.013	0.058	
		Passenger Cars	0.020	0.006	0.026	
		2 to 4-Axle+ Trucks (PCE = 3.0)	0.025	0.007	0.032	
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.345	0.853	1.198	
		Passenger Cars	0.024	0.091	0.115	
		2-Axle Trucks (PCE = 1.5)	0.036	0.000	0.036	
		3-Axle Trucks (PCE = 2.0)	0.114	0.476	0.590	
		4-Axle+ Trucks (PCE = 3.0)	0.171	0.286	0.457	
Church	560	1,200 SEATS	0.25	0.26	0.51	

Trip Generation Results						
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour		
				In	Out	Total
1	High-Cube Warehouse	--	982.232 TSF			
	- Passenger Cars			19	6	25
	- Net Truck Trips (Actual Vehicles)			25	7	32
	High Cube Parcel Warehouse Subtotal			44	13	57
	Truck/Trailer Parking Lot	--	25.62 AC			
	- Passenger Cars			1	2	3
	- Truck Trips					
	2-axle (PCE = 1.5):			1	0	1
	3-axle (PCE = 2.0):			3	12	15
	4+-axle (3.0):			4	7	11
- Net Truck Trips (PCE)			8	19	27	
Truck/Trailer Parking Lot Subtotal			9	21	30	
Passenger Cars Subtotal			20	8	28	
Truck Trips Subtotal			33	26	59	
<b>Planning Area 1 Subtotal (PCE)<sup>5</sup></b>			<b>53</b>	<b>34</b>	<b>87</b>	
2	Church	560	1,200 SEATS	300	312	612
<b>SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 CHURCH) TOTAL EXTERNAL TRIPS (PCE)</b>				<b>353</b>	<b>346</b>	<b>699</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

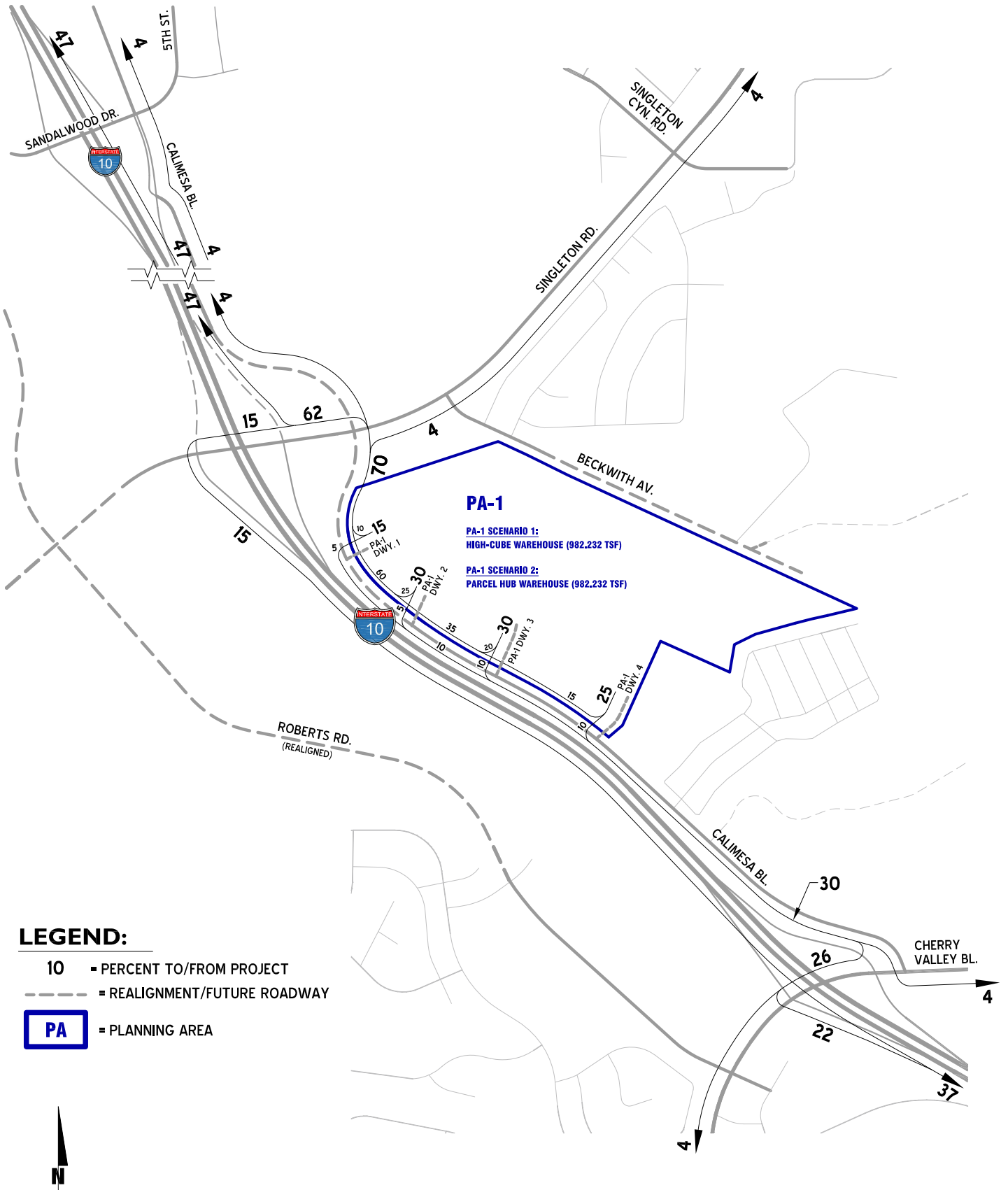
<sup>2</sup> TSF = Thousand Square Feet; AC = Acres

<sup>3</sup> Sunday rates for warehouse use have been estimated based on weekday rates to reflect Sunday conditions.

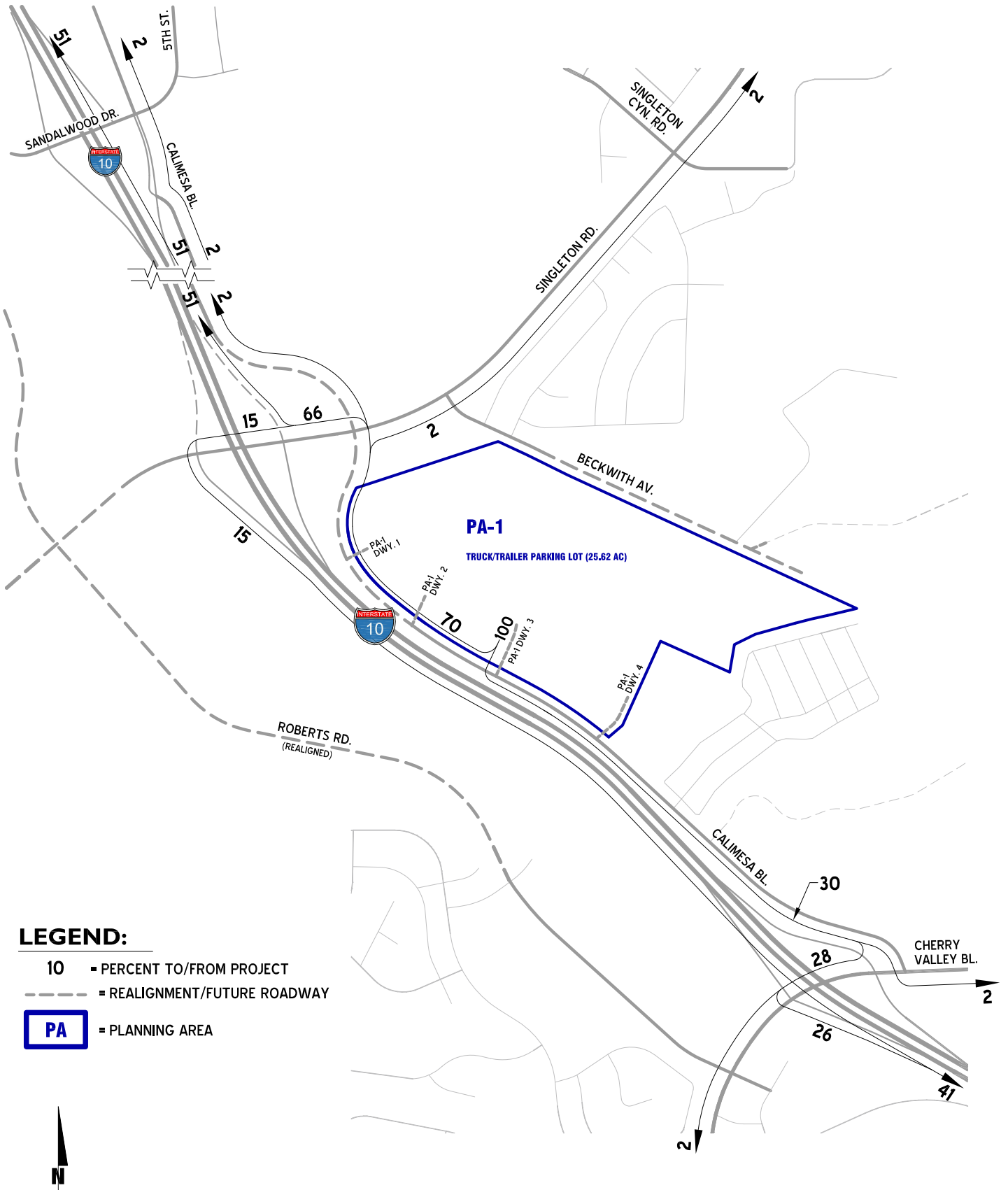
<sup>4</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXRjobs\_13100\_13500\13594\02\_LOS\Excel\13594 - Report.xlsx\2028\_Proposed+Church - PCE

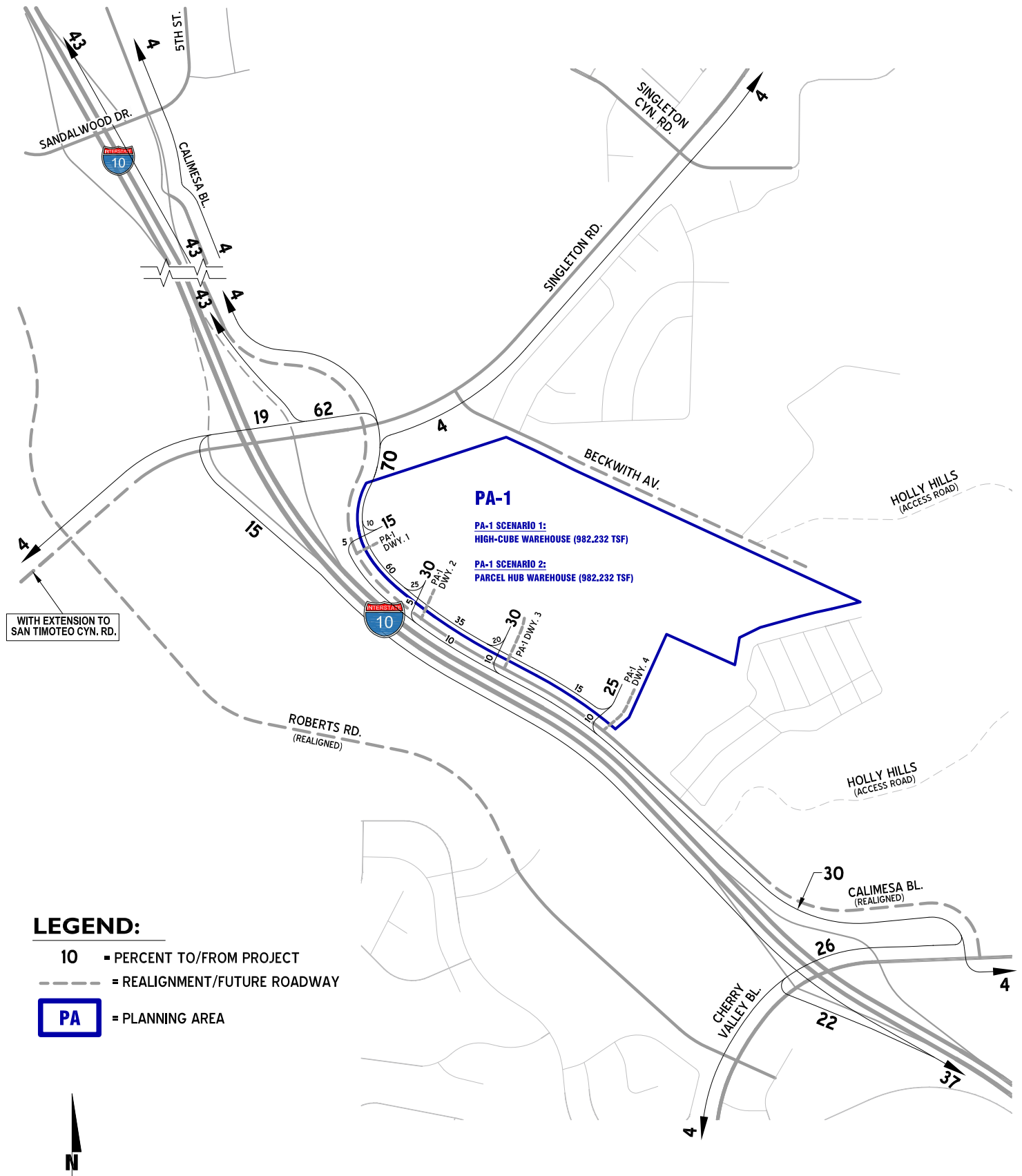
**EXHIBIT 4-1: 2025 WAREHOUSE (PA-1) PROJECT TRIP DISTRIBUTION**



**EXHIBIT 4-2: 2025 TRUCK/TRAILER PARKING LOT (PA-1) PROJECT TRIP DISTRIBUTION**



**EXHIBIT 4-3: 2028 WAREHOUSE (PA-1) PROJECT TRIP DISTRIBUTION**



**EXHIBIT 4-4: 2028 TRUCK/TRAILER PARKING LOT (PA-1) PROJECT TRIP DISTRIBUTION**

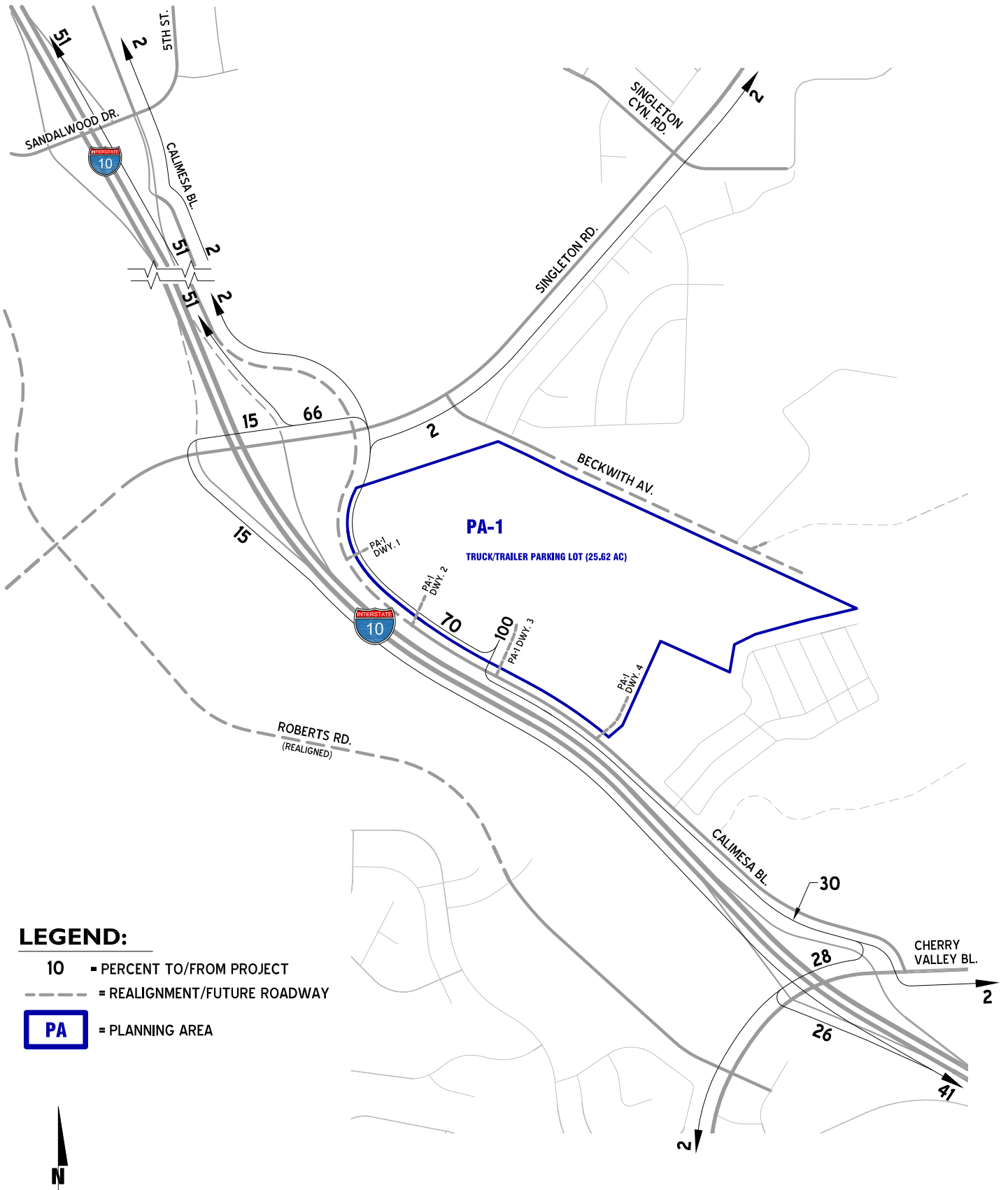
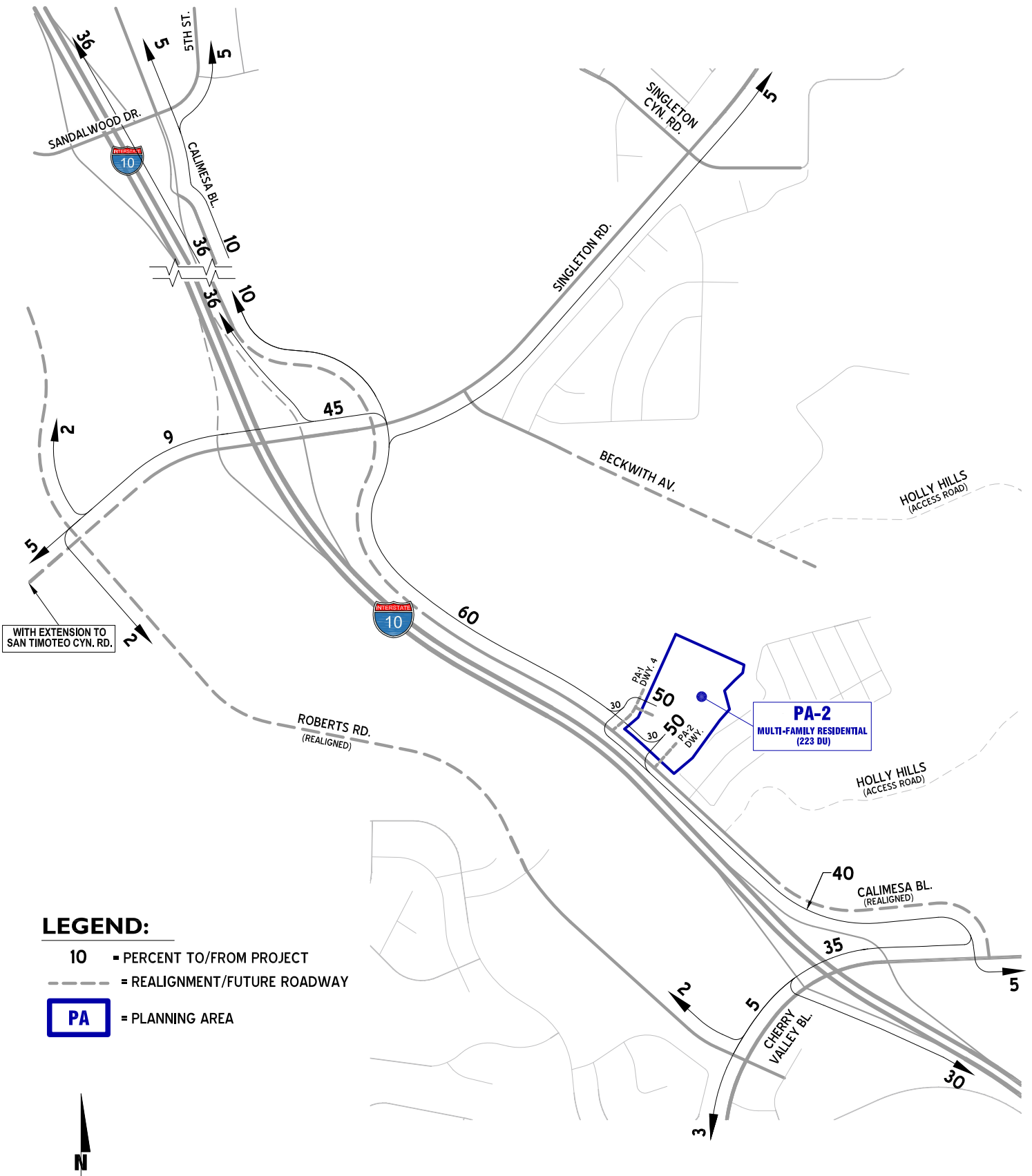


EXHIBIT 4-5: 2028 MULTI-FAMILY RESIDENTIAL (PA-2) PROJECT TRIP DISTRIBUTION







## 4.5 BACKGROUND TRAFFIC

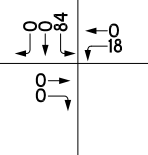
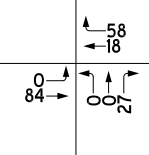
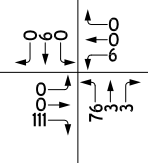
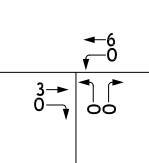
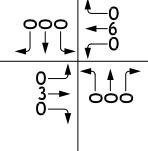
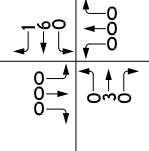
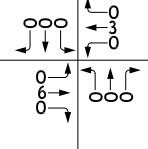
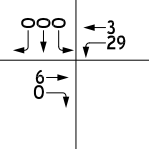
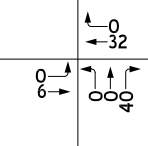
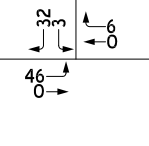
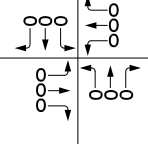
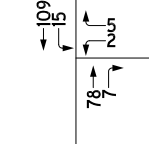
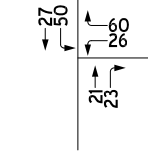
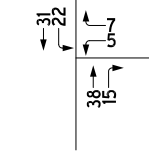
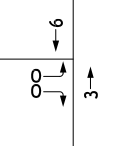
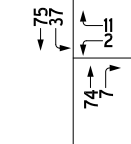
### 4.5.1 OPENING YEAR CUMULATIVE (2025) CONDITIONS

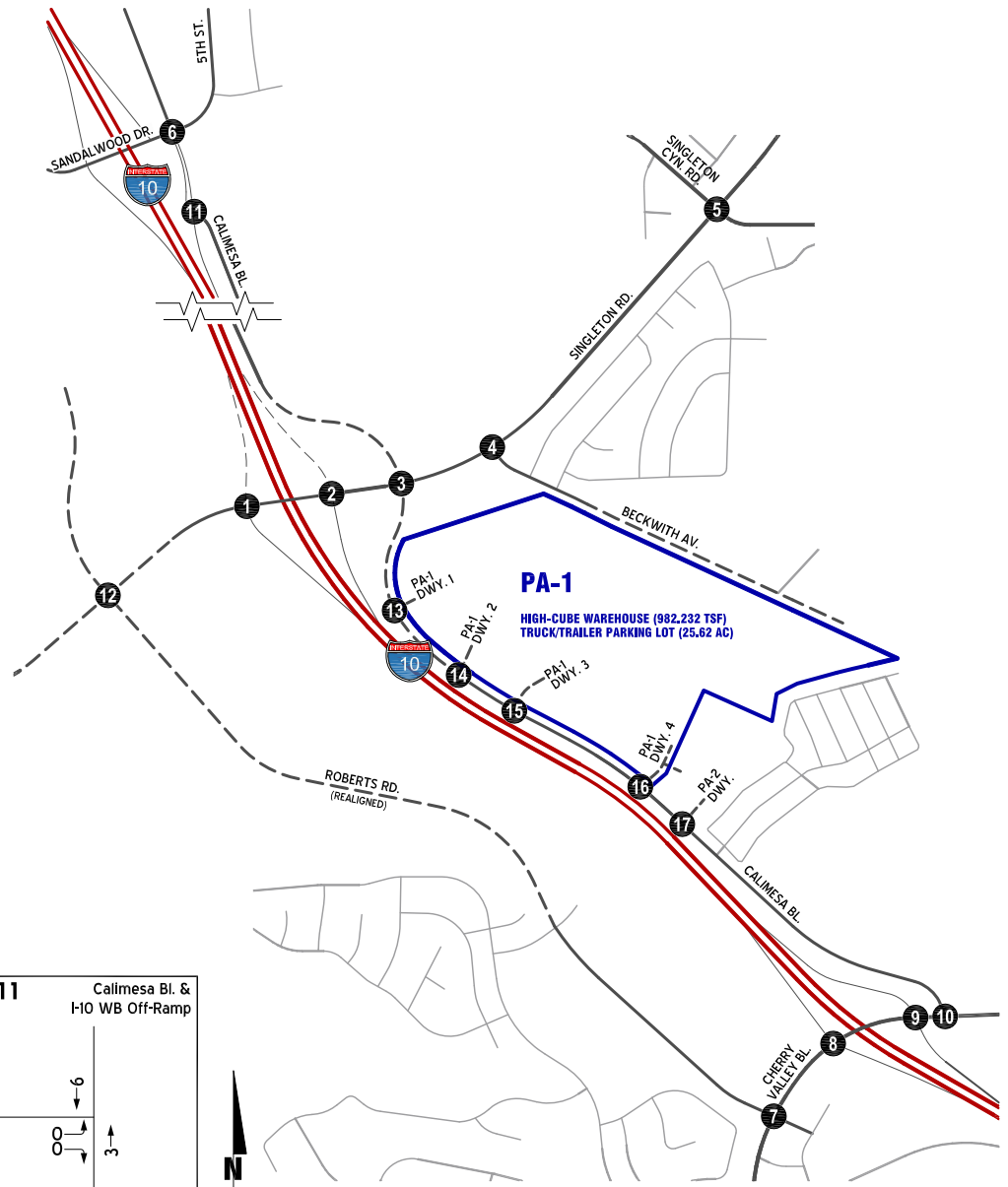
Future year traffic forecasts have been based upon background (ambient) growth at 2% per year, compounded annually for 2025 conditions. The total ambient growth is 6.12% for 2025 traffic conditions (compounded growth of 2 percent per year over 3 years or  $1.02^{3\text{years}}$ ). The ambient growth 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 Opening Year Cumulative (2025) traffic analysis includes the following traffic conditions, with the various traffic components:

- Opening Year Cumulative (2025) Without Project
  - Existing 2022 counts
  - Ambient growth traffic (6.12%)
  - Cumulative Development traffic
- Opening Year Cumulative (2025) With PA 1, High-Cube Warehouse & Truck/Trailer Lot
  - Existing 2022 counts
  - Ambient growth traffic (6.12%)
  - Cumulative Development traffic
  - Project PA 1 (High-Cube Warehouse & Truck/Trailer Lot) traffic
- Opening Year Cumulative (2025) With PA 1, Parcel Hub Warehouse & Truck/Trailer Lot
  - Existing 2022 counts
  - Ambient growth traffic (6.12%)
  - Cumulative Development traffic
  - Project PA 1 (Parcel Hub Warehouse & Truck/Trailer Lot) traffic

**EXHIBIT 4-7: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p> 	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p> 
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p> 	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p> 
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p> 	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p> 
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p> 	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p> 
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p> 	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p> 
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p> 	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p> 
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p> 	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> 
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p> 	
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p> 	
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>	

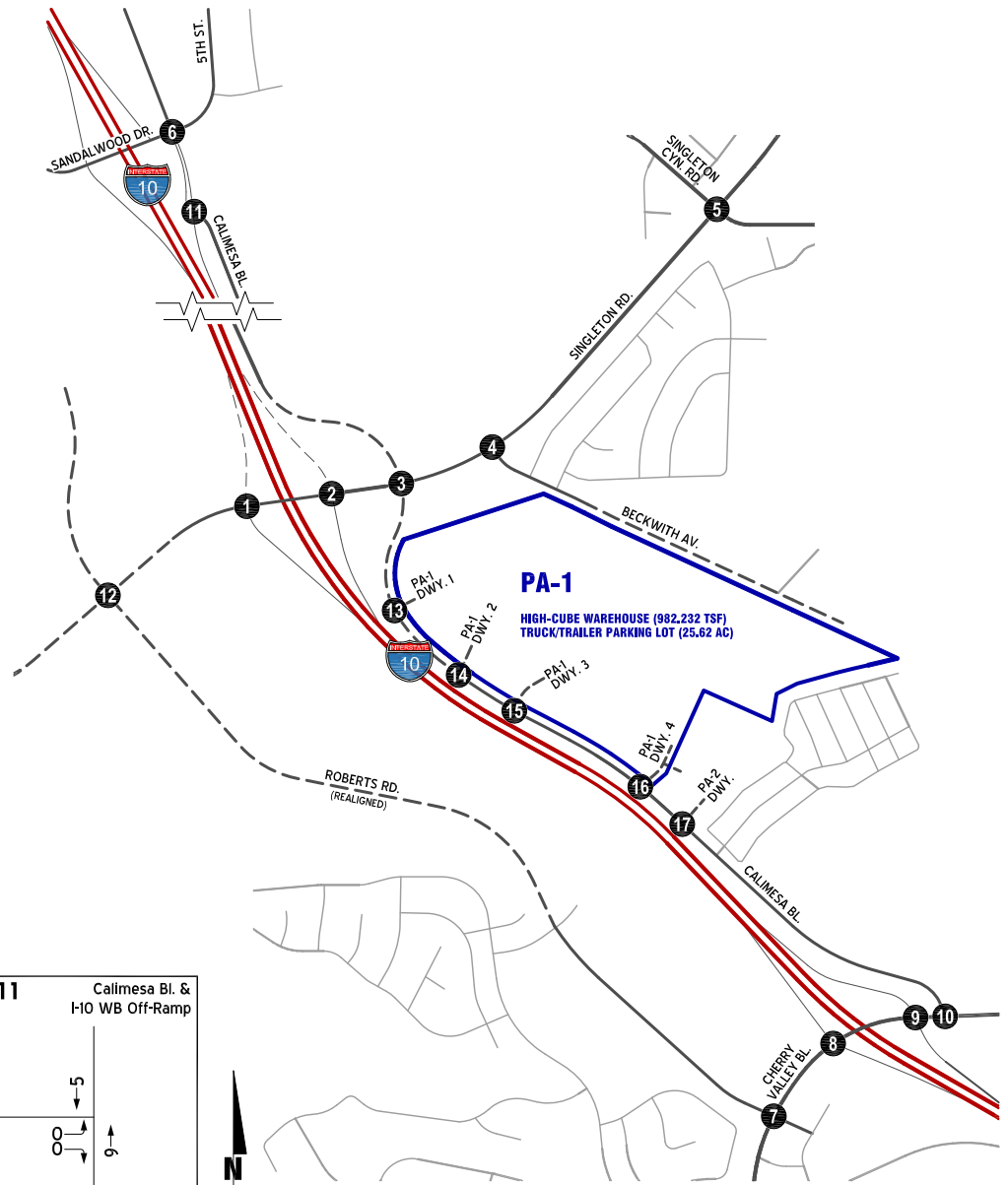


**LEGEND:**

- 17 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

**EXHIBIT 4-8: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

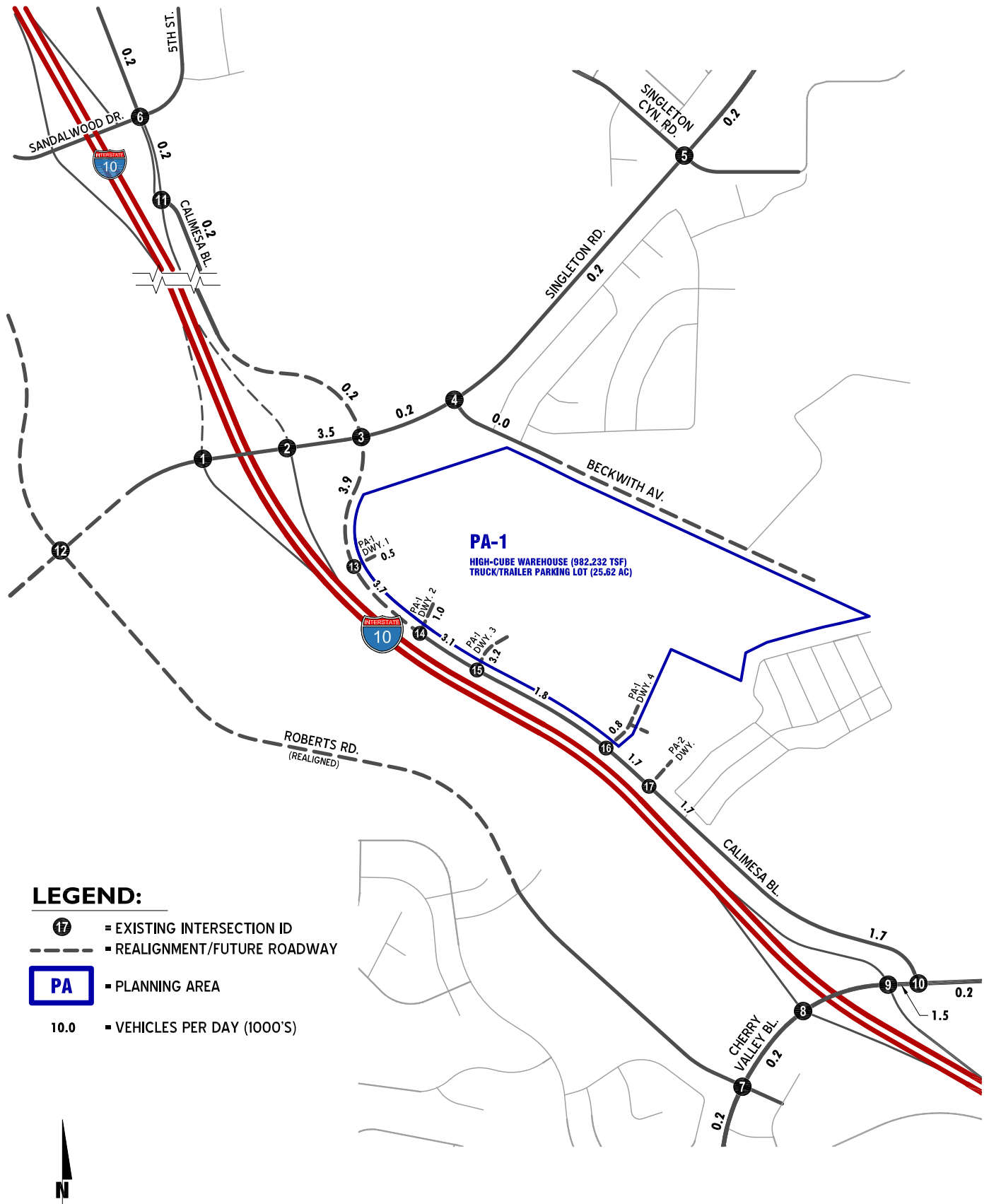
<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>	



**LEGEND:**

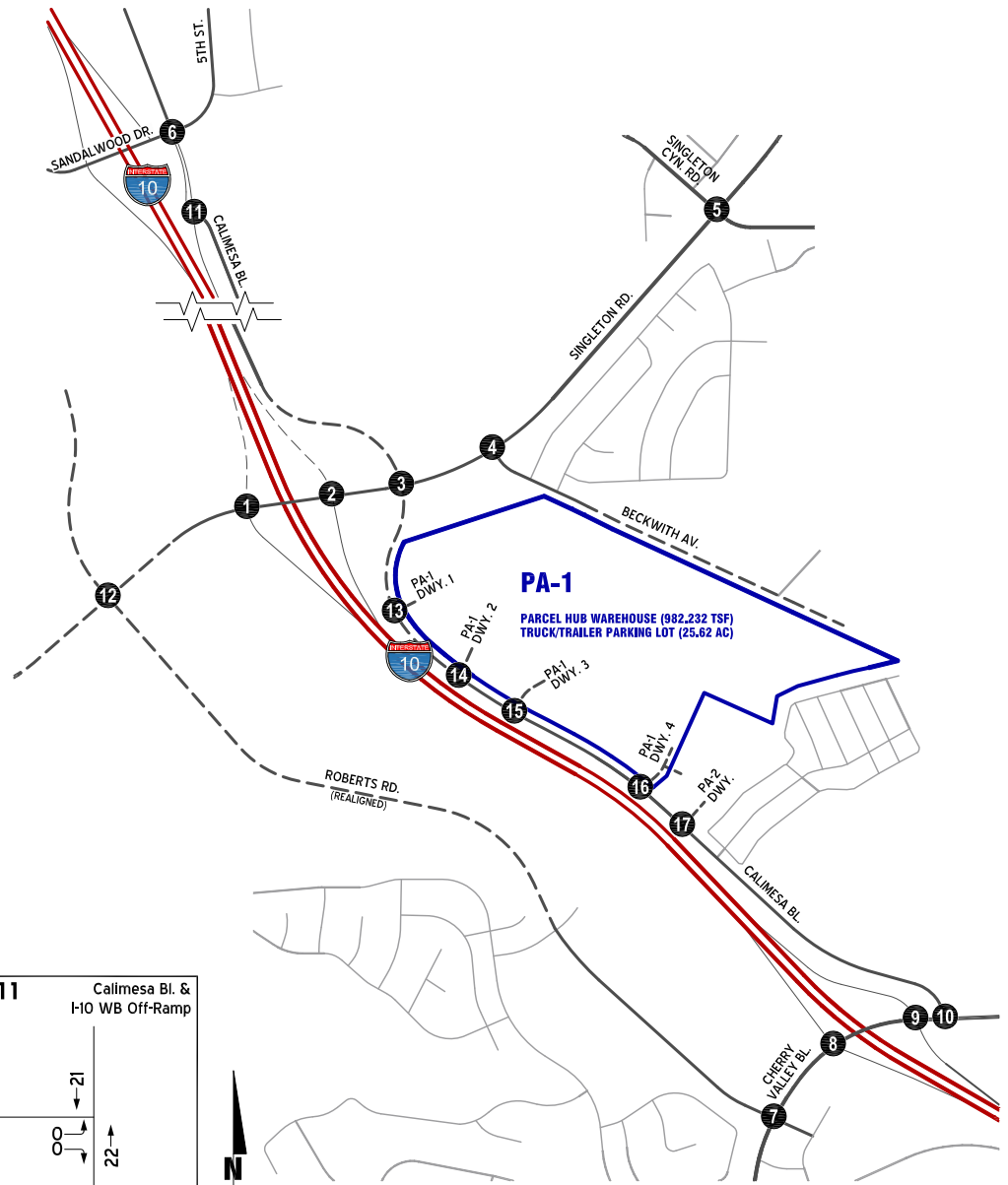
- 17 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

**EXHIBIT 4-9: OPENING YEAR (2025)  
WITH PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT  
PROJECT ONLY AVERAGE DAILY TRAFFIC VOLUMES**



**EXHIBIT 4-10: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>	

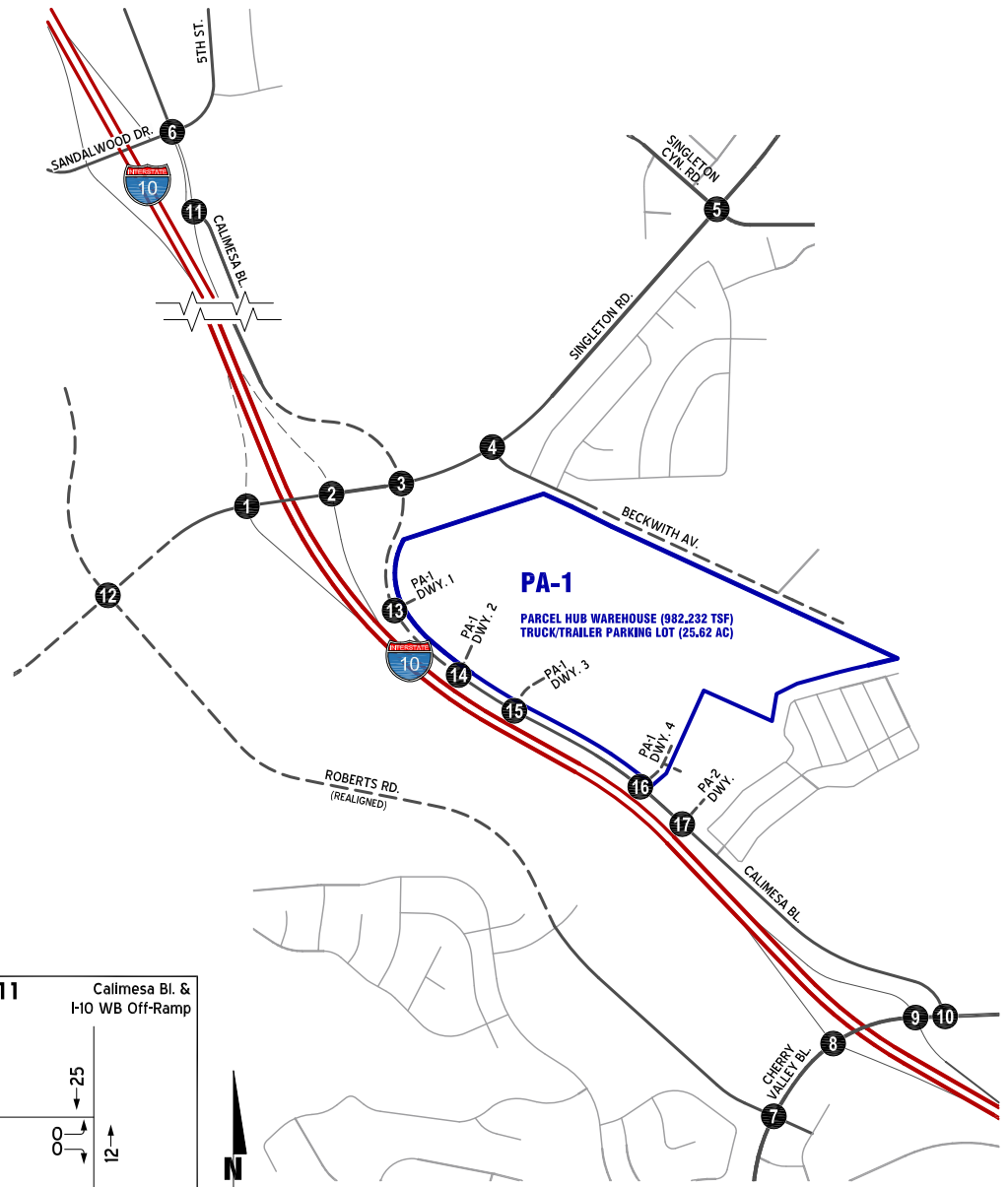


**LEGEND:**

- 17 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

**EXHIBIT 4-11: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

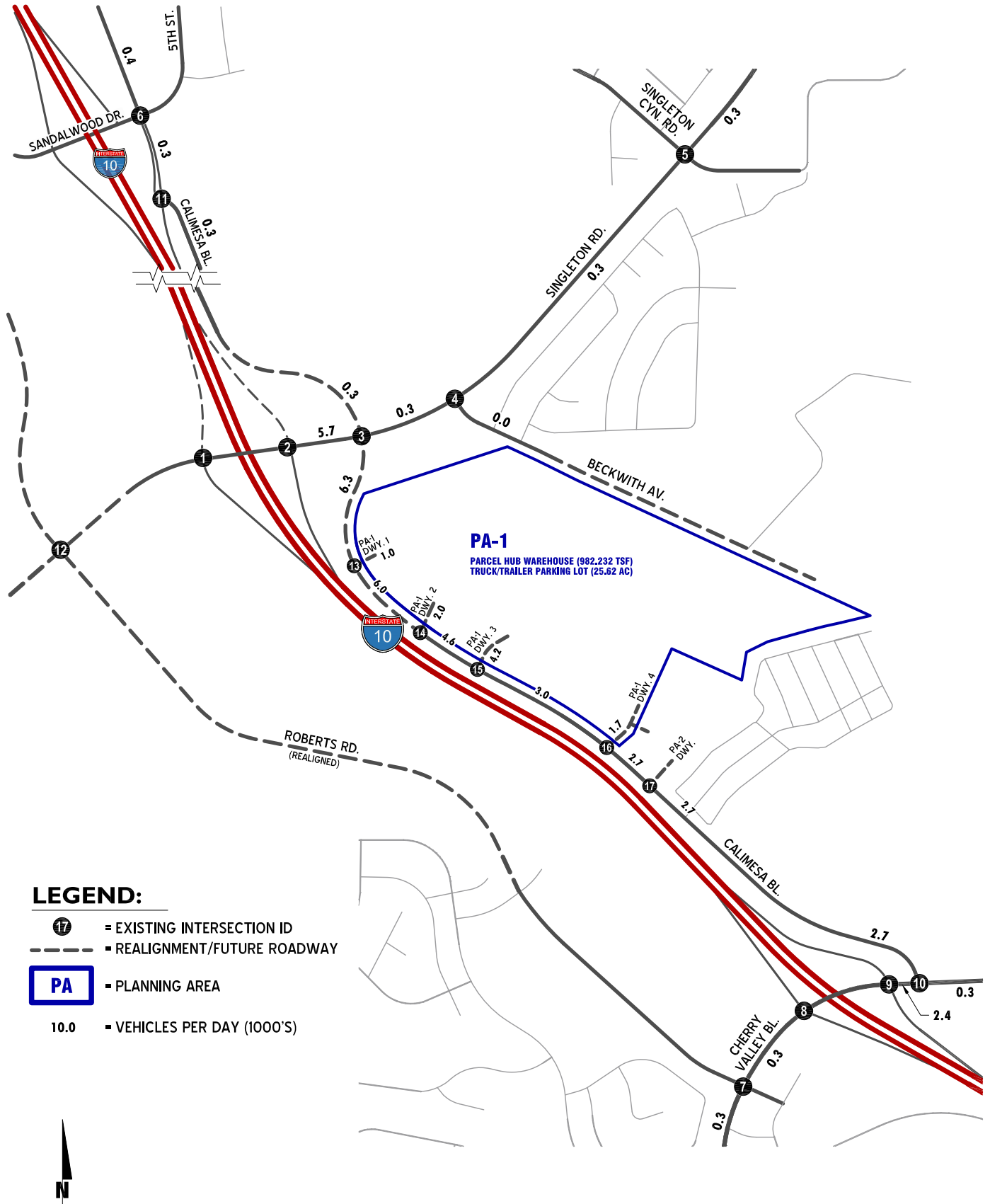
<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>	



**LEGEND:**

- 17 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

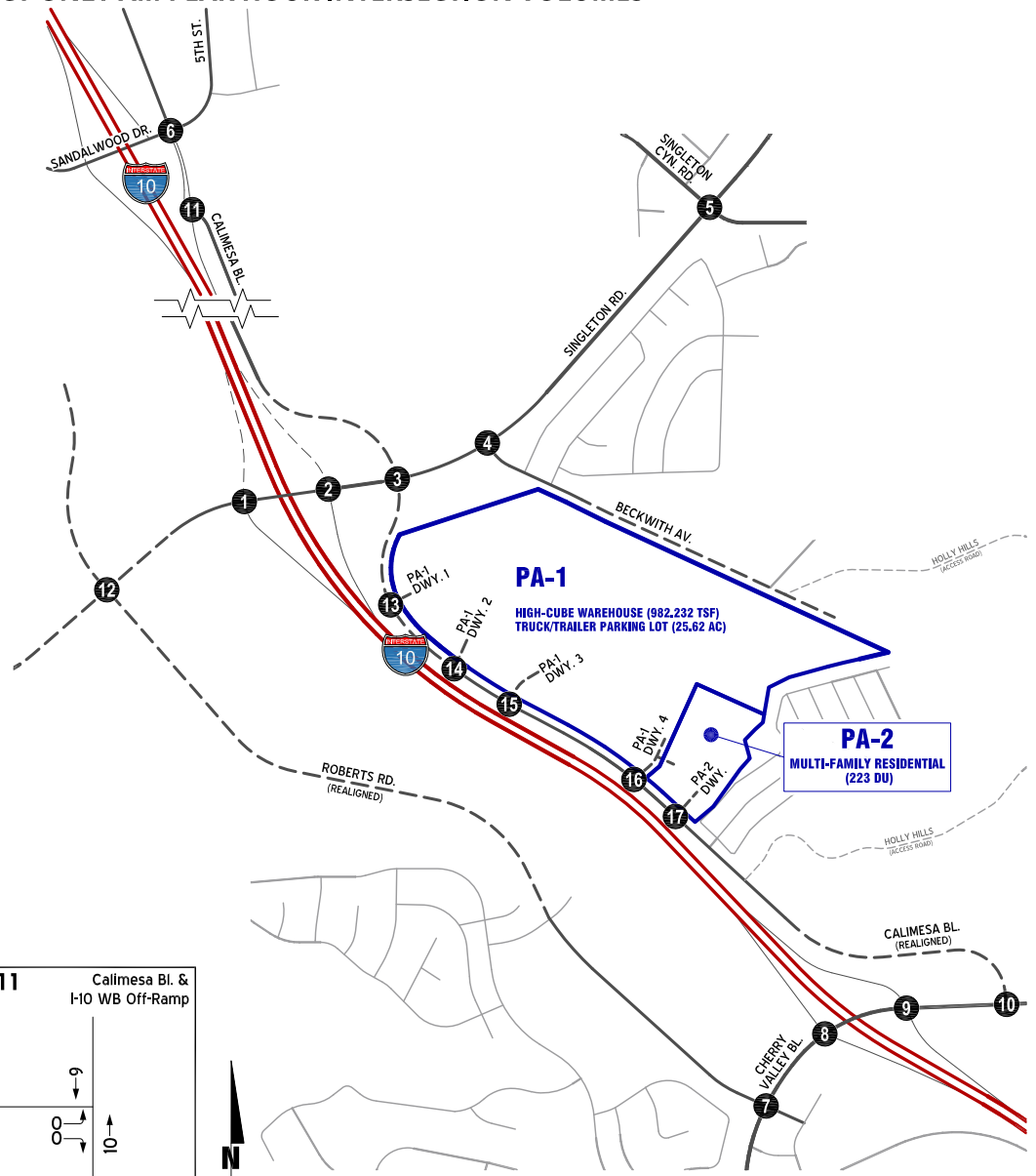
**EXHIBIT 4-12: OPENING YEAR (2025)  
WITH PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT  
PROJECT ONLY AVERAGE DAILY TRAFFIC VOLUMES**





**EXHIBIT 4-13: INTERIM YEAR (2028) SCENARIO 1  
(PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	

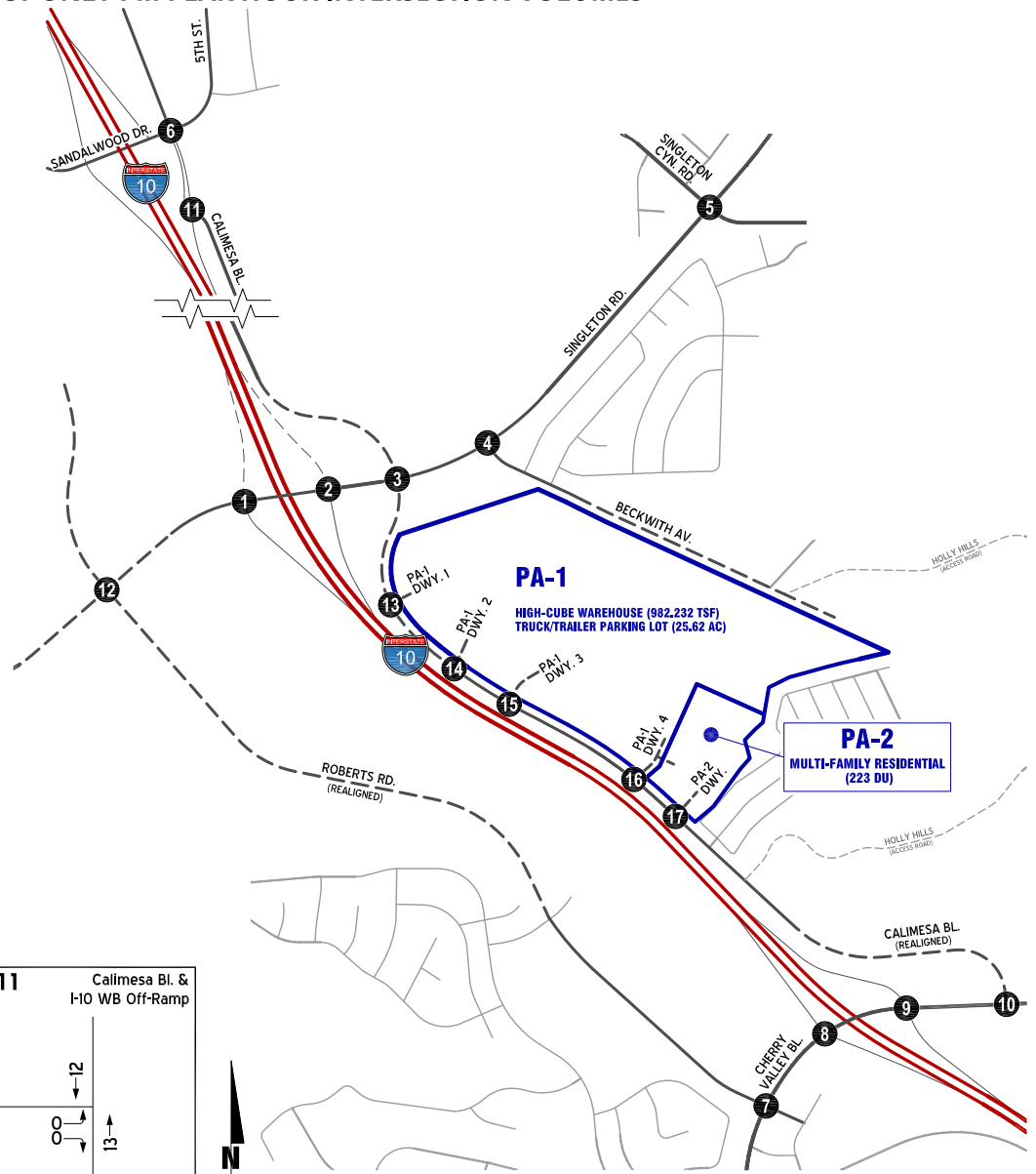


**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

**EXHIBIT 4-14: INTERIM YEAR (2028) SCENARIO 1  
(PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

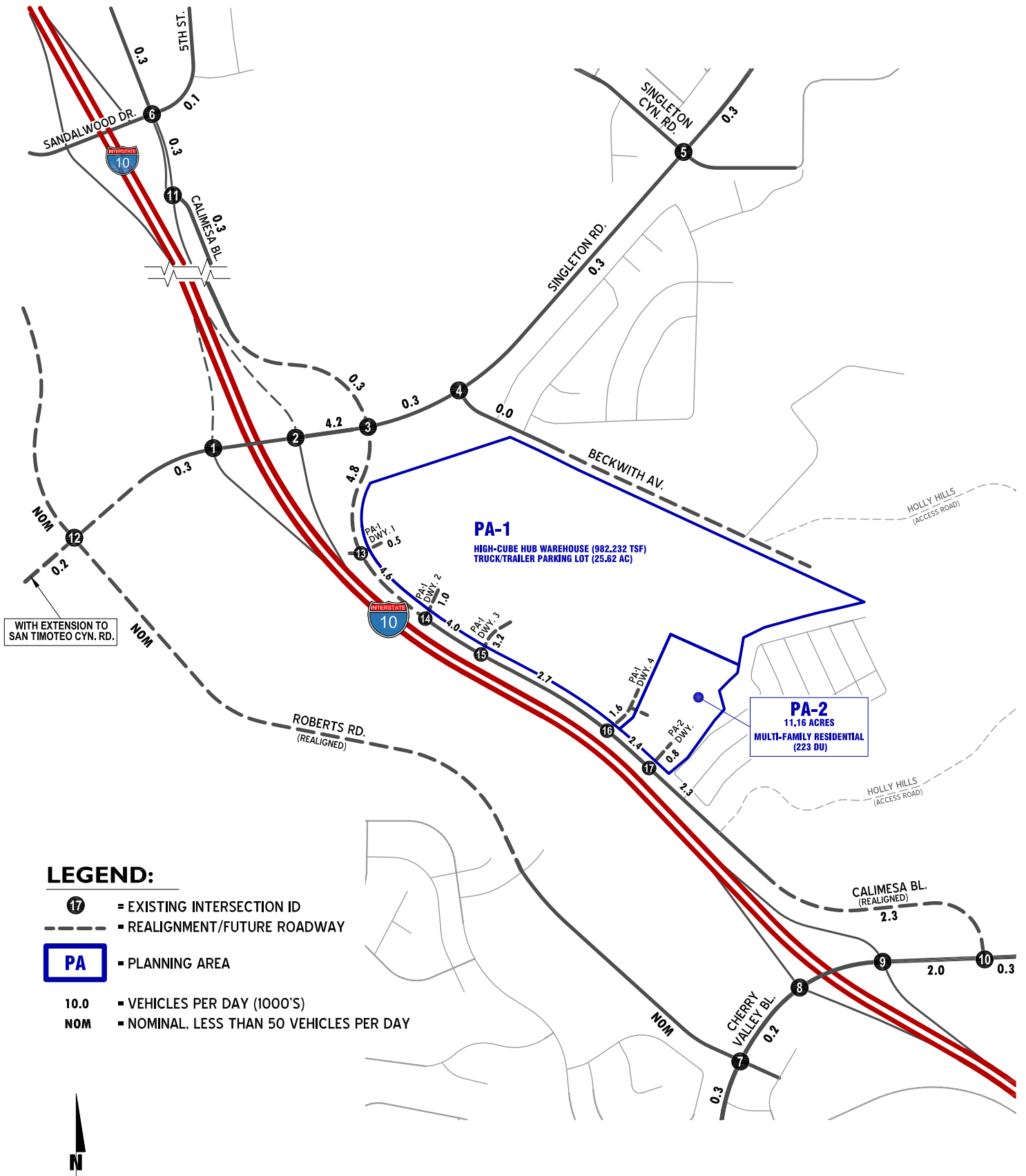
<b>1</b> I-10 EB Ramps & Singleton Rd. 	<b>2</b> I-10 WB Ramps & Singleton Rd. 
<b>3</b> Calimesa Bl. & Singleton Rd. 	<b>4</b> Beckwith Av. & Singleton Rd. 
<b>5</b> Singleton Cyn. Rd. & Singleton Rd. 	<b>6</b> Calimesa Bl. & Sandalwood Dr. 
<b>7</b> Roberts Rd. & Cherry Valley Bl. 	<b>8</b> I-10 EB Ramps & Cherry Valley Bl. 
<b>9</b> I-10 WB Ramps & Cherry Valley Bl. 	<b>10</b> Calimesa Bl. & Cherry Valley Bl. 
<b>11</b> Calimesa Bl. & I-10 WB Off-Ramp 	
<b>12</b> Roberts Rd. & Singleton Rd. 	<b>13</b> Calimesa Bl. & PA-1 Dwy. 1 
	<b>14</b> Calimesa Bl. & PA-1 Dwy. 2 
<b>15</b> Calimesa Bl. & PA-1 Dwy. 3 	<b>16</b> Calimesa Bl. & PA-1 Dwy. 4 
	<b>17</b> Calimesa Bl. & PA-2 Dwy. 



**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

EXHIBIT 4-15: 2028 PROJECT ONLY, SCENARIO 1  
AVERAGE DAILY TRAFFIC VOLUMES

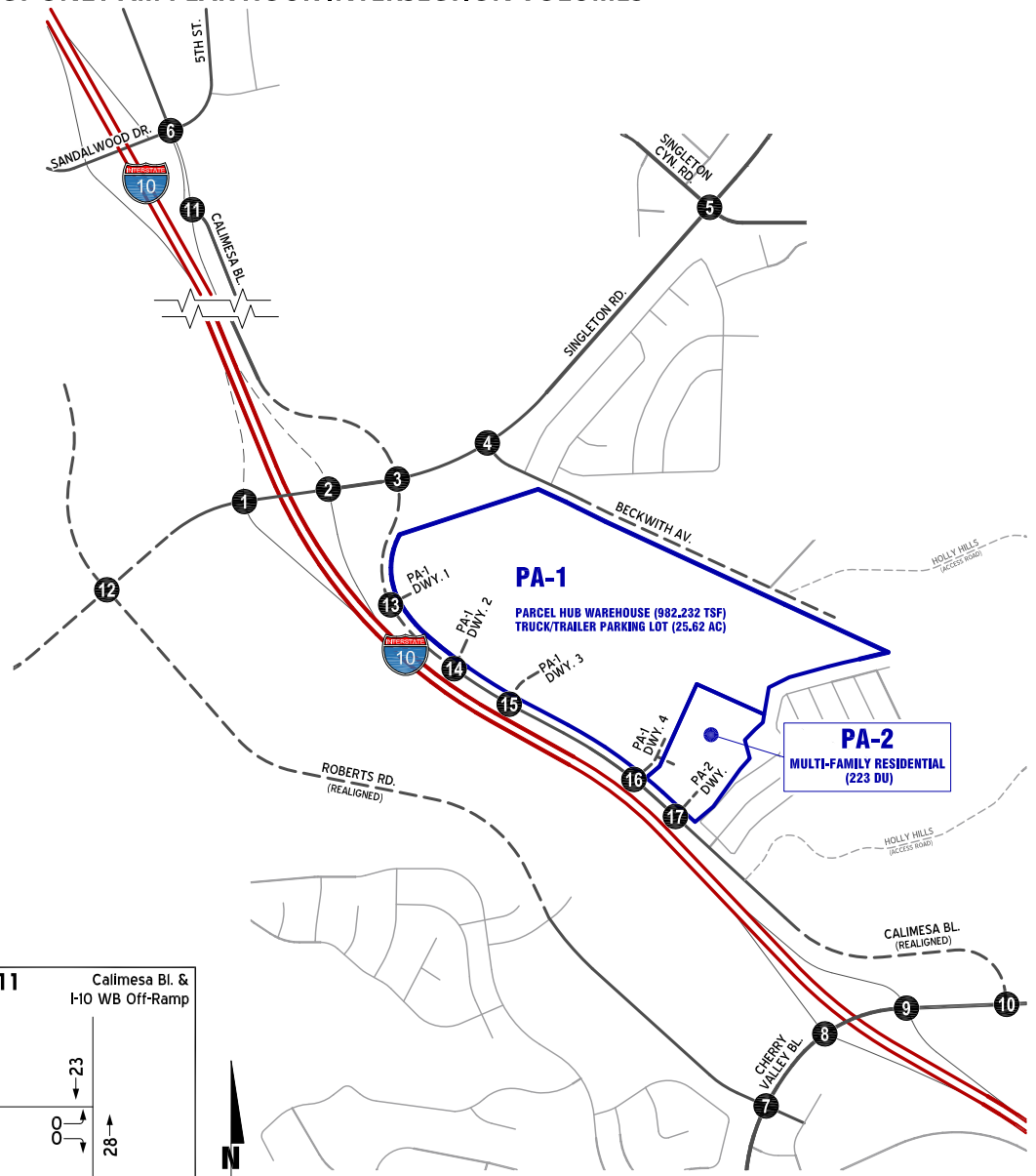


**LEGEND:**

- 17 = EXISTING INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA
- 10.0 = VEHICLES PER DAY (1000'S)
- NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

**EXHIBIT 4-16: INTERIM YEAR (2028) SCENARIO 2  
(PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	

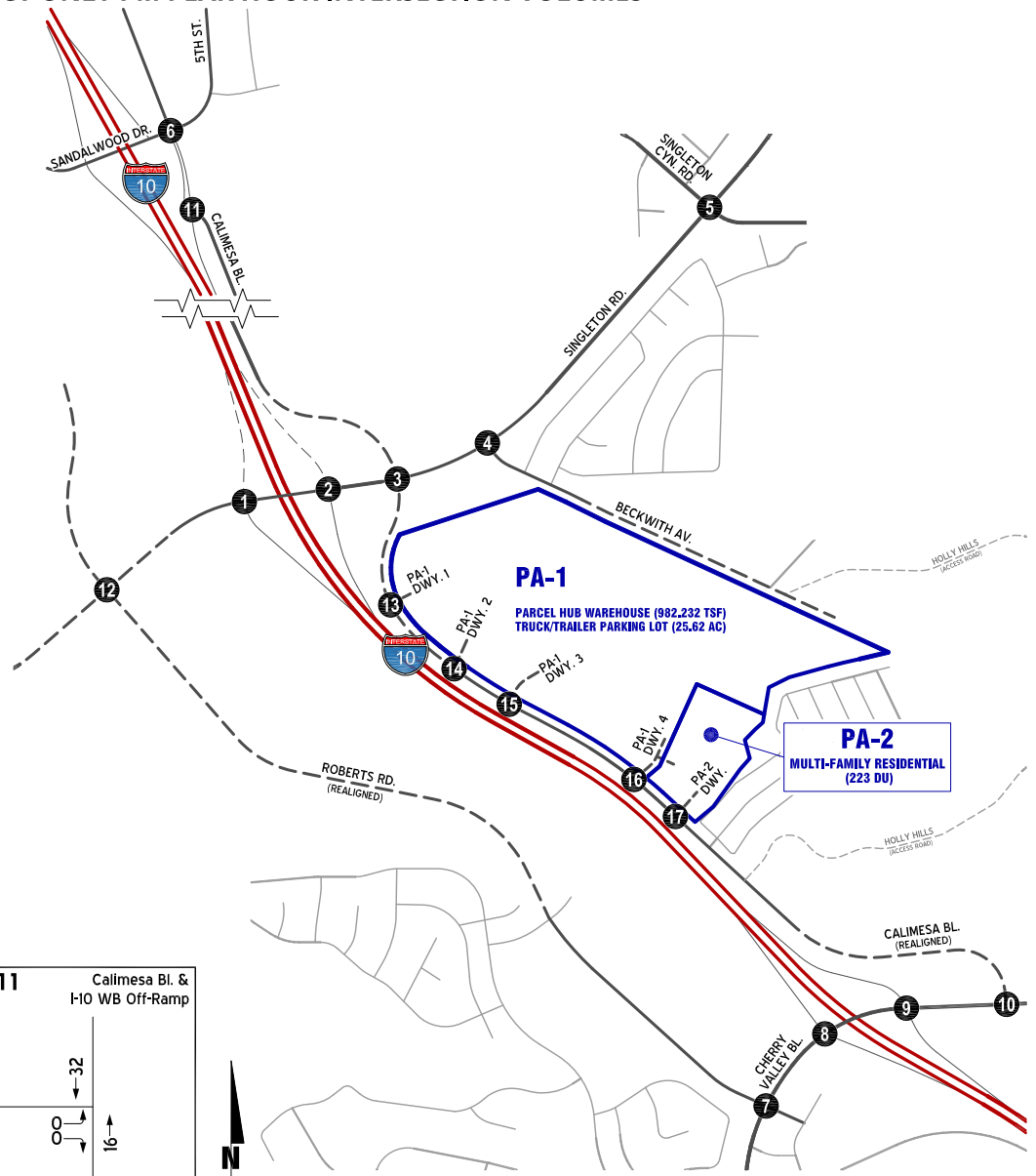


**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

**EXHIBIT 4-17: INTERIM YEAR (2028) SCENARIO 2  
(PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

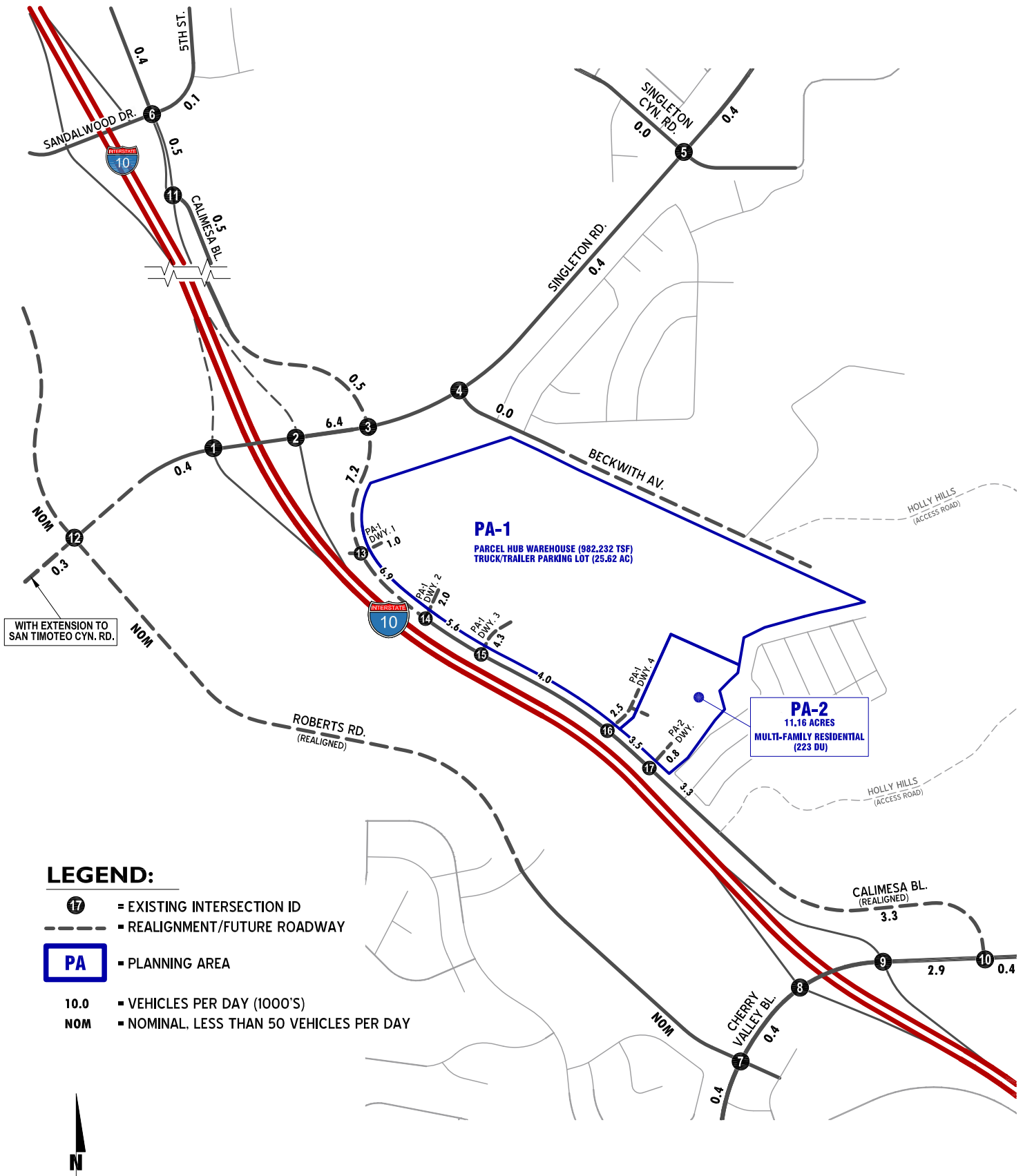
<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>



**LEGEND:**

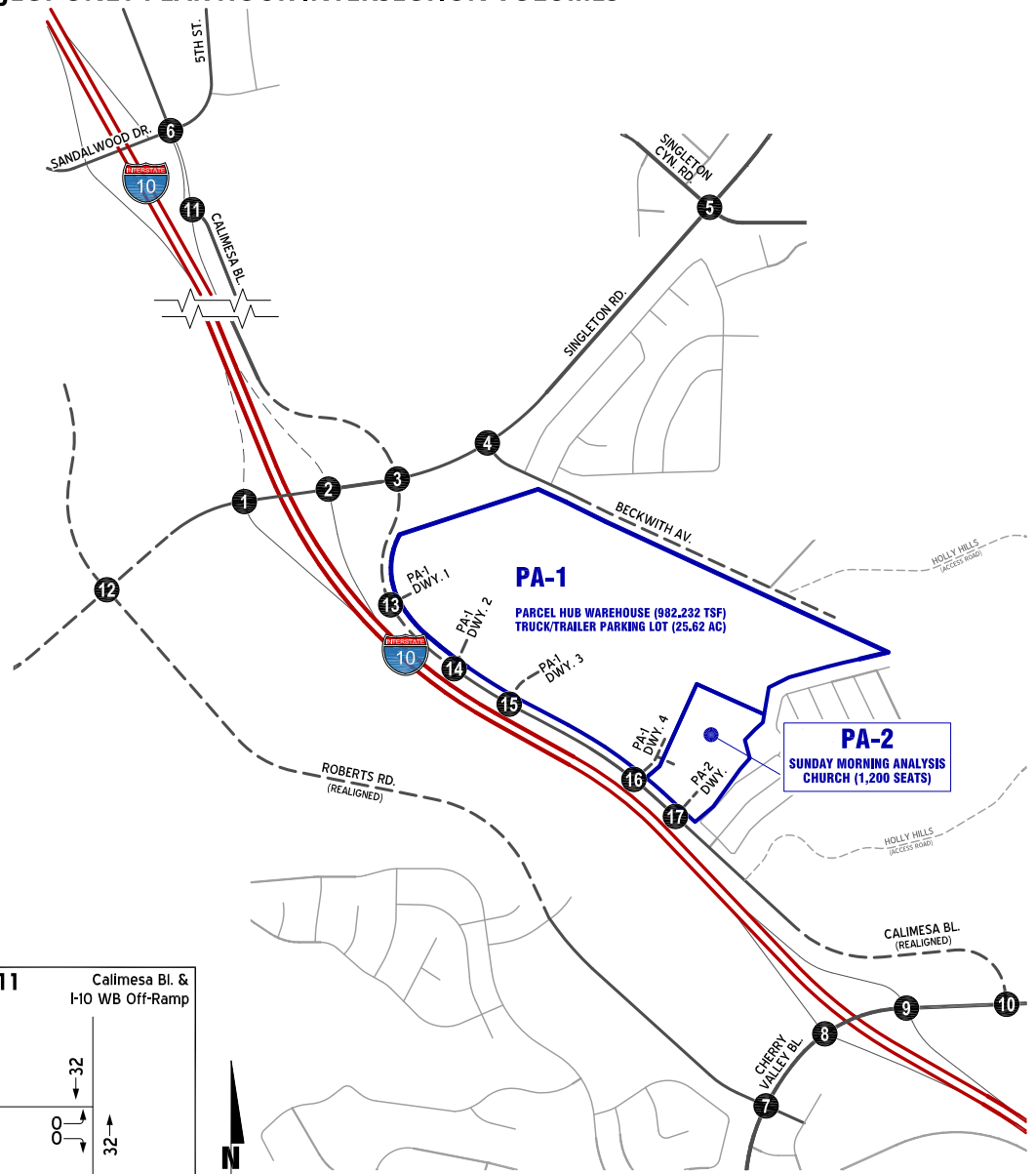
- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

EXHIBIT 4-18: 2028 PROJECT ONLY, SCENARIO 2  
AVERAGE DAILY TRAFFIC VOLUMES



**EXHIBIT 4-19: SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3  
(PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 CHURCH),  
PROJECT ONLY PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	



**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA



#### 4.5.2 INTERIM YEAR CUMULATIVE (2028) CONDITIONS

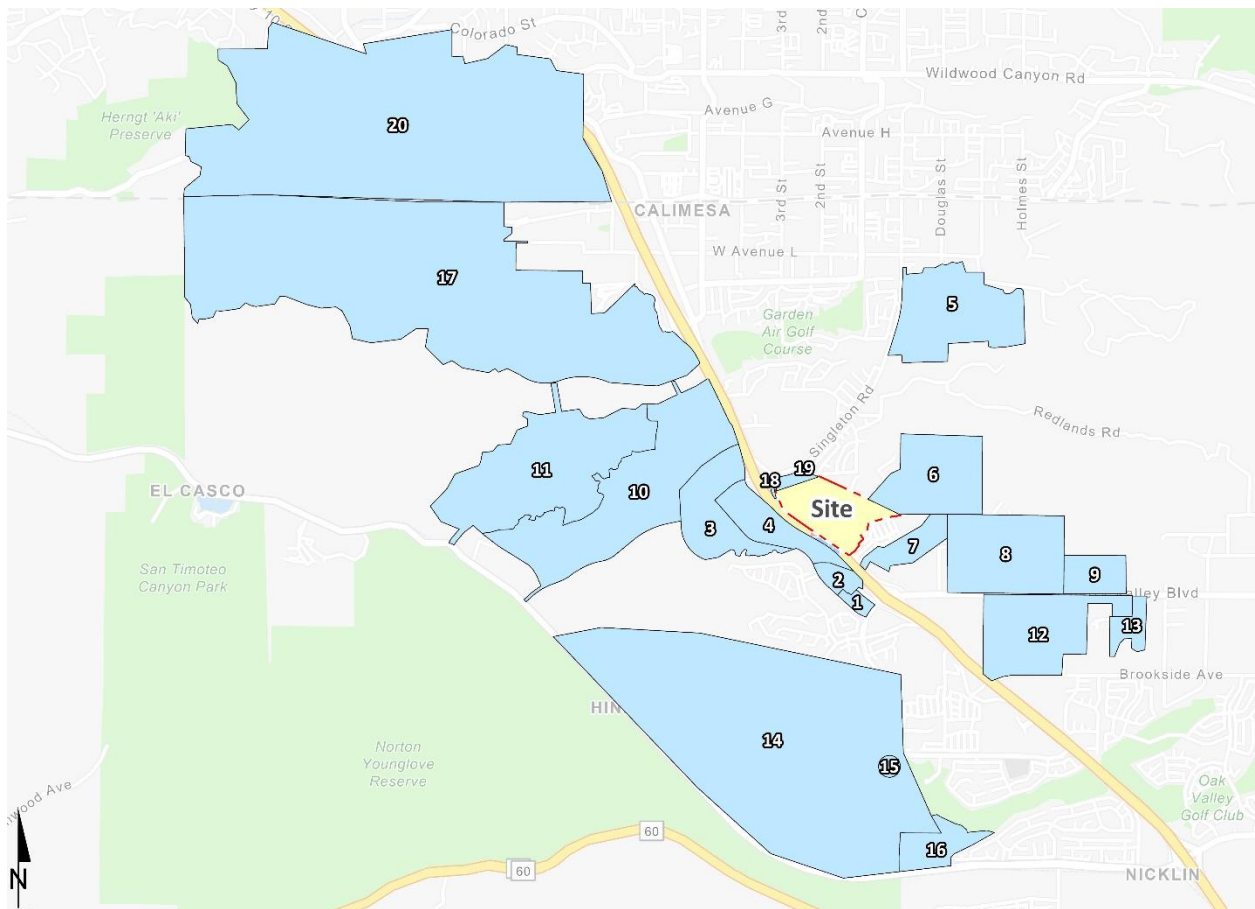
Future year traffic forecasts have been based upon background (ambient) growth at 2% per year, compounded annually for 2028 conditions. The total ambient growth is 12.62% for 2028 traffic conditions (compounded growth of 2 percent per year over 6 years or  $1.02^{6\text{years}}$ ). The ambient growth 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. Exhibit 4-20 shows the location of other development projects, and Table 4-11 shows the other development land use intensities for 2025, 2028, and 2045 conditions.

The Interim Year Cumulative (2028) traffic analysis includes the following traffic conditions, with the various traffic components:

- Interim Year Cumulative (2028) Without Project
  - Existing 2022 counts
  - Ambient growth traffic (12.62%)
  - Cumulative Development traffic
- Interim Year Cumulative (2028) With Project Scenario 1
  - Existing 2022 counts
  - Ambient growth traffic (12.62%)
  - Cumulative Development traffic
  - Project Scenario 1 (PA 1- High-Cube Warehouse & Truck/Trailer Lot & PA 2 - Residential) traffic
- Interim Year Cumulative (2028) With Project Scenario 2
  - Existing 2022 counts
  - Ambient growth traffic (12.62%)
  - Cumulative Development traffic
  - Project Scenario 2 (PA 1- Parcel Hub Warehouse & Truck/Trailer Lot & PA 2 - Residential) traffic
- Sunday Morning Interim Year Cumulative (2028) With PA 2 Church, Scenario 3
  - Existing 2022 Sunday counts
  - Ambient growth traffic (12.62%)
  - Cumulative Development traffic
  - Project Scenario 3 (PA 1- High-Cube Warehouse & Truck/Trailer Lot & PA 2 - Church) traffic



**EXHIBIT 4-20: CUMULATIVE DEVELOPMENT LOCATION MAP**



**TABLE 4-11: CUMULATIVE DEVELOPMENT LAND USE SUMMARY**

#	Project	Land Use	2025 Quantity <sup>1</sup>	2028 Quantity <sup>1</sup>	2045 Quantity <sup>1</sup>
1	Calimesa II	Health/Fitness Club	20.000 TSF	20.000 TSF	20.000 TSF
		Clinic	12.000 TSF	12.000 TSF	12.000 TSF
		Animal Hospital/Veterinary Clinic	9.900 TSF	9.900 TSF	9.900 TSF
		Medical-Dental Office	5.000 TSF	5.000 TSF	5.000 TSF
		Shopping Center (>150k)	8.500 TSF	8.500 TSF	8.500 TSF
		High Turnover (Sit-Down) Restaurant	8.500 TSF	8.500 TSF	8.500 TSF
		Fast-Food Restaurant w/ Drive-Through Window	7.500 TSF	7.500 TSF	7.500 TSF
		Super Convenience Market/Gas Station	16 VFP	16 VFP	16 VFP
2	Summerwind Commons II	Single Family Detached	168 DU	168.0 DU	168.0 DU
3	Oak Valley Town Center	High Cube Warehouse	2,250.000 TSF	2,250.000 TSF	2,250.000 TSF
		Truck/trailer Parking Lot	10.1 AC	10.1 AC	10.1 AC
4	Oak Valley Town Commercial	Commercial Retail	--	200.000 TSF	751.800 TSF
5	JP Ranch (Tract No. 30387)	Single Family Residential	--	345 DU	689 DU
		Shopping Center	--	36.00 SF	72.70 SF
6	Holly Hills (within RIVCOM TAZ 140)	Single Family Detached	--	520 DU	1,039 DU
		Multifamily Housing (Low-Rise)	--	133 DU	266 DU
		Parks/Recreation	--	6.0 AC	11.6 AC
7	Holly Hills (within RIVCOM TAZ 143)	Single Family Detached	--	235 DU	470 DU
		Multifamily Housing (Low-Rise)	--	237 DU	473 DU
		Parks/Recreation	--	5.0 AC	10.3 AC
8	I-10 Gateway	High-Cube Warehouse	960.000 TSF	1,600.000 TSF	2,560.000 TSF
9	Borstein Property	Single Family Residential	209 DU	209 DU	209 DU
10	Summerwind Trails (Phases 2 & 3)	Single Family Residential	--	1,747 DU	1,747 DU
		Single Family Residential - Attached	--	411 DU	411 DU
		Parks	--	25.6 AC	25.6 AC
11	Summerwind Trails (Phases 4 & 5)	Single Family Residential	--	--	790 DU
		Parks	--	--	29.5 AC
12	Sunny-Cal Specific Plan	Single Family Residential	571 DU	571 DU	571 DU
13	Beaumont Tract 31966	Single Family Residential	60 DU	60 DU	60 DU
14	Fairway Canyon SCPGA	Single Family Residential	500 DU	1,000 DU	1,650 DU
15	Beyond Beaumont Commercial	Shopping Center	6.580 TSF	6.580 TSF	6.580 TSF
16	Tournament Hills 3, TM 36307	Single Family Residential	279 DU	279 DU	279 DU
17	Mesa Verde	High-Cube Parcel Hub	--	4,165.000 TSF	4,165.000 TSF
		High-Cube Cold Storage	--	735.000 TSF	735.000 TSF
		Single Family Residential	--	--	2,853 DU
		Multifamily (Low-Rise Residential)	--	--	797 DU
		Parks	--	--	44.0 AC
		Elementary School	--	--	1,200 STU
		Mixed Use (Commercial)	--	--	250.000 TSF
18	Oak Valley Commercial 1 (SWC of Calimesa Bl./Singleton Rd.)	Shopping Center	--	64.033 TSF	64.033 TSF
19	Oak Valley Commercial 2 (SEC of Calimesa Bl./Singleton Rd.)	Shopping Center	--	128.067 TSF	128.067 TSF

<sup>1</sup> AC = Acres; DU = Dwelling Units; RM = Rooms; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

### 4.5.3 HORIZON YEAR (2045) CONDITIONS

The adopted Southern California Association of Governments (SCAG) SoCal Connect (September 2020) growth forecasts for the City of Calimesa identifies projected growth in population of 8,500 in 2016 to 20,600 in 2045, or a 142.4% increase over the 29-year period. (6) The change in population equates to roughly a 3.1% growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 205.9%, or a 3.9% annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 156.3%, or a 3.4% annual growth rate. The average annual growth in population, housing, and employment is 3.4%.

Based on a comparison of Existing (2022) traffic volumes to the Horizon Year (2045) forecasts, the average growth rate is estimated at approximately 4.1%, compounded annually between Existing (2022) and 2045 traffic conditions. The annual growth rate at each individual intersection is not lower than 3.6% compounded annually to as high as 5.4% compounded annually over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Calimesa for Opening Year Cumulative and Horizon Year (2045) traffic conditions, especially when considered along with the addition of project-related traffic, which would tend to overstate as opposed to understate the potential effects to traffic and circulation.

Traffic projections for Horizon Year (2045) conditions were derived from the Riverside County Transportation Analysis Model (RIVCOM) regional model using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing and Horizon Year traffic conditions. The base model year for the RIVCOM regional model is Year 2018 and the future year model is Year 2045.

In most instances the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the Horizon Year peak hour forecasts were refined using the model derived long-range forecasts, base (validation) year model forecasts, along with existing peak hour traffic count data collected at each analysis location. The refined future peak hour approach and departure volumes obtained from these calculations are then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP Report 765), along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. However, review of the resulting model growth indicates negative growth for some of the study area intersections. In an effort to conduct a conservative analysis, reductions to traffic forecasts from Existing, Opening Year Cumulative (2025), or Interim Year Cumulative (2028) traffic conditions were not assumed as part of this analysis. Additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year forecasts. Horizon Year turning volumes were compared to Opening Year and Interim Year Cumulative volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between Opening Year Cumulative (2025) or Interim

Year Cumulative (2028) and Horizon Year traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2022) and Horizon Year traffic conditions.

Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the Horizon Year peak hour forecasts. The only instance when the Opening Year Cumulative (2025) or Interim Year Cumulative (2028) forecasts would not be used to manually adjust the Horizon Year forecasts is if there are new proposed roadway connections/facilities that would explain the change in travel patterns within the study area.

Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two freeway ramp locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis. Post-processing worksheets for Horizon Year Without Project traffic conditions are provided in Appendix 4.1.

This page intentionally left blank

## 5 OPENING YEAR CUMULATIVE (2025) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Opening Year Cumulative (2025) conditions and the resulting intersection operations and traffic signal warrant analyses.

### 5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2025) 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 Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).

### 5.2 OPENING YEAR CUMULATIVE (2025) INTERSECTION OPERATIONS ANALYSIS

Opening Year Cumulative (2025) 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. LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2025) Without Project conditions with roadway and intersection geometrics consistent with Section 5.1 *Roadway Improvements*. The intersection analysis results are summarized on Table 5-1 for Opening Year Cumulative (2025) traffic conditions. Intersection operations analysis worksheets are provided in an appendix for each scenario, as indicated below.

#### 5.2.1 WITHOUT PROJECT

Opening Year Cumulative (2025) Without Project weekday AM and PM peak hour volumes are shown on Exhibit 5-1. Opening Year Cumulative (2025) Without Project ADT volumes are shown on Exhibit 5-2. As shown on Table 5-1, the following study area intersections are anticipated to operate at an unacceptable LOS under Opening Year Cumulative (2024) Without Project traffic conditions:

- Calimesa Boulevard & Singleton Road (#3) – LOS F AM peak hour only
- Roberts Road & Cherry Valley Boulevard (#7) – LOS F AM peak hour only
- I-10 Eastbound Ramps & Cherry Valley Boulevard (#8) – LOS F AM and PM peak hours
- I-10 Westbound Ramps & Cherry Valley Boulevard (#9) – LOS F AM and PM peak hours
- Calimesa Boulevard & Cherry Valley Boulevard (#10) – LOS F AM peak hour only
- Calimesa Boulevard & I-10 Westbound Off-Ramp (#11) – LOS D AM peak hour only

Intersection analysis worksheets for Opening Year Cumulative (2025) Without Project conditions are included in Appendix 5.1.

**TABLE 5-1: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2025) CONDITIONS**

#	Intersection	Traffic Control <sup>2</sup>	2025 Without Project				2025 With Project (Scenario 1)				Scenario 1 Related Increase in Delay (secs.) <sup>3</sup>		2025 With Project (Scenario 2)				Scenario 2 Related Increase in Delay (secs.) <sup>3</sup>	
			Delay <sup>1</sup> (secs.)		Level of Service		Delay <sup>1</sup> (secs.)		Level of Service		AM	PM	Delay <sup>1</sup> (secs.)		Level of Service		AM	PM
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-10 EB Ramps / Singleton Rd.	CSS	16.1	20.3	C	C	<b>91.5</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	75.4	>5.0	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0
2	I-10 WB Ramps / Singleton Rd.	CSS	13.4	12.9	B	B	16.3	16.3	C	C	--	--	34.0	<b>54.2</b>	D	<b>F</b>	--	41.3
3	Calimesa Bl. / Singleton Rd.	AWS	<b>&gt;100.0</b>	31.4	<b>F</b>	D	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0
4	Beckwith Av. / Singleton Rd.	CSS	19.7	17.2	C	C	19.9	17.4	C	C	--	--	20.6	17.8	C	C	--	--
5	Singleton Cyn. Rd. / Singleton Rd.	AWS	11.8	10.0	B	A	11.9	10.1	B	B	--	--	12.2	10.2	B	B	--	--
6	Calimesa Bl. / Sandalwood Dr. - 5th St.	TS	41.8	34.1	D	D	41.9	34.1	D	C	--	--	42.0	34.4	D	C	--	--
7	Roberts Rd. / Cherry Valley Bl.	TS	<b>128.1</b>	35.9	<b>F</b>	D	<b>173.7</b>	41.8	<b>F</b>	D	45.6	--	<b>171.6</b>	41.6	<b>F</b>	D	43.5	--
8	I-10 EB Ramps / Cherry Valley Bl.	AWS	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0
9	I-10 WB Ramps / Cherry Valley Bl.	AWS	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0
10	Calimesa Bl. / Cherry Valley Bl.	CSS	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	>5.0	>5.0
11	Calimesa Bl. / I-10 WB off-ramp	AWS	<b>26.9</b>	19.5	<b>D</b>	C	<b>27.6</b>	19.9	<b>D</b>	C	0.7	--	<b>31.5</b>	21.2	<b>D</b>	C	4.6	--
12	Roberts Rd. / Singleton Rd.	CSS	13.0	21.9	B	C	13.0	21.9	B	C	--	--	13.0	21.9	B	C	--	--
13	Calimesa Bl. / PA-1 Dwy. 1	<b>CSS</b>	Future Intersection				10.7	10.0	B	B	--	--	15.4	12.0	C	B	--	--
14	Calimesa Bl. / PA-1 Dwy. 2	<b>CSS</b>	Future Intersection				10.4	9.6	B	A	--	--	14.9	11.2	B	B	--	--
15	Calimesa Bl. / PA-1 Dwy. 3	<b>CSS</b>	Future Intersection				11.4	10.6	B	B	--	--	17.8	13.5	C	B	--	--
16	Calimesa Bl. / PA-1 Dwy. 4	<b>CSS</b>	Future Intersection				10.8	9.7	B	A	--	--	14.1	11.3	B	B	--	--
17	Calimesa Bl. / PA-2 Dwy.		Future Intersection				Future Intersection				--	--	Future Intersection				--	--

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

<sup>1</sup> 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.

<sup>2</sup> TS = Traffic Signal; CSS = Cross-Street Stop; **CSS** = Improvement

<sup>3</sup> Project-related increase in delay is only calculated for deficient intersections within the jurisdiction of the City of Calimesa. An increase in delay greater than 5.0 seconds is assumed for unsignalized delays greater than 100 seconds and signalized delays greater than 200 seconds

**EXHIBIT 5-1: OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT PEAK HOUR TRAFFIC VOLUMES**

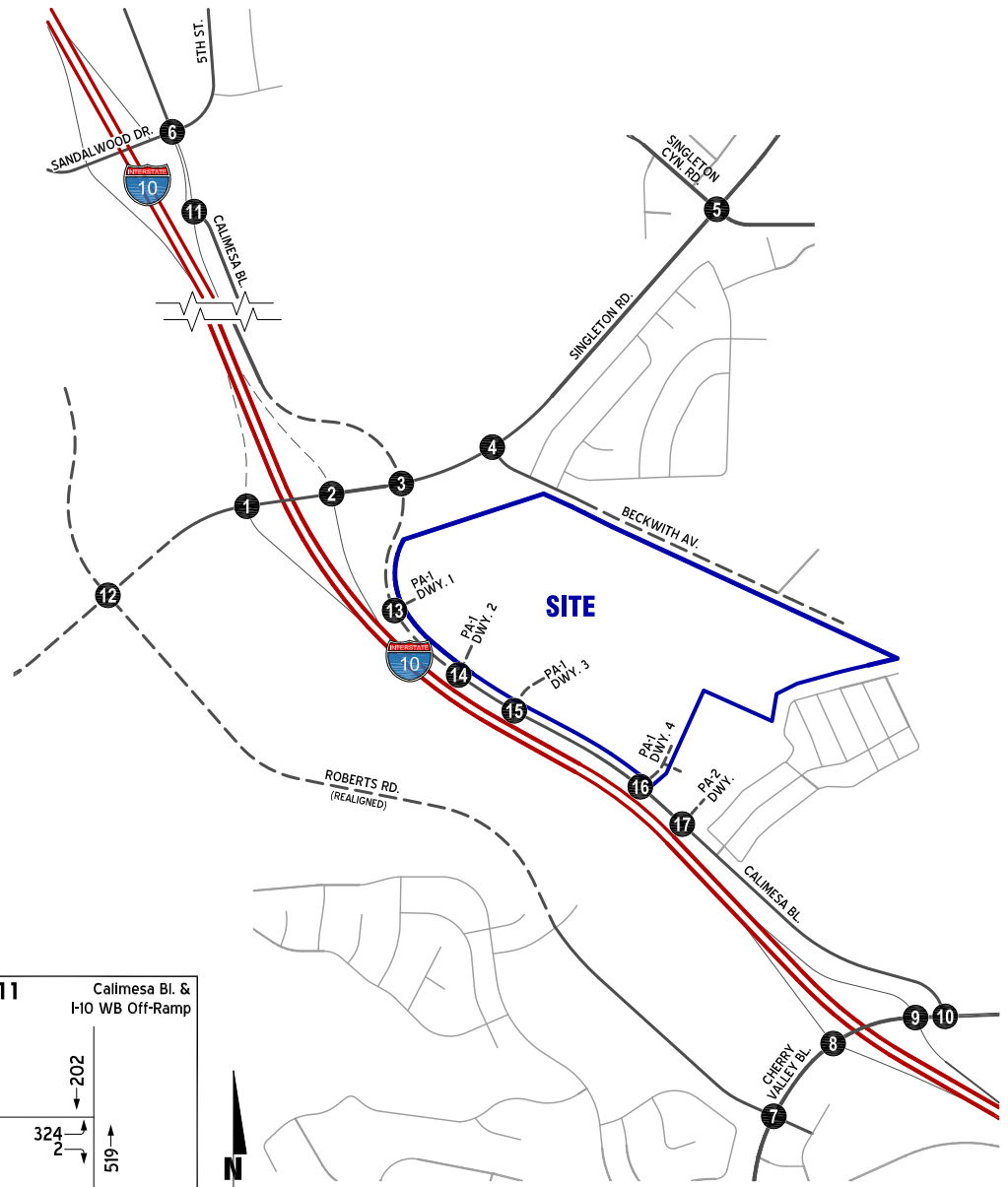
<b>1</b>	<b>I-10 EB Ramps / Singleton Rd.</b>	<b>2</b>	<b>I-10 WB Ramps / Singleton Rd.</b>	<b>3</b>	<b>Calimesa Bl. / Singleton Rd.</b>	<b>4</b>	<b>Beckwith Av. / Singleton Rd.</b>
	209(122) ↓ 30(66) ← 156(109) ↑ 340(202)		↑ 208(200) ← 384(249)		141(137) ↓ 20(105) ↓ 64(159) ↑ 176(72) ← 447(305) ↑ 23(49)		← 625(409) ↑ 3(5)
	112(295) → 41(141) ↓	72(240) ↓ 70(121) → 111(63) ↓ 205(294) ↑		77(91) ↓ 196(319) → 2(6) ↓ 5(6) ↓ 241(47) ↑ 133(17) ↑		381(466) ↓ 12(29) ↓ 21(17) ↓ 2(4) ↑	
<b>5</b>	<b>Singleton Cyn. Rd. / Singleton Rd.</b>	<b>6</b>	<b>Calimesa Bl. / Sandalwood Dr. - 5th St.</b>	<b>7</b>	<b>Roberts Rd. / Cherry Valley Bl.</b>	<b>8</b>	<b>I-10 EB Ramps / Cherry Valley Bl.</b>
	108(42) ↓ 1(1) ↓ 21(17) ↑ 13(14) ← 492(352) ↑ 1(1)		308(339) ↓ 142(291) ↓ 23(32) ↑ 20(28) ← 318(189) ↑ 17(40)		221(237) ↓ 21(12) ↓ 468(266) ↑ 338(346) ← 368(569) ↑ 127(258)		415(728) ↓ 291(476) ↑ 417(444) ↑ 171(191)
	34(89) ↓ 344(382) → 4(1) ↓ 7(1) ↓ 1(1) ↑ 1(2) ↑	131(94) ↓ 181(90) → 42(86) ↓ 223(82) ↓ 458(351) ↑ 162(171) ↑		306(161) ↓ 414(504) → 21(24) ↓ 12(24) ↓ 23(8) ↑ 121(139) ↑		806(690) ↓ 197(219) ↓	
<b>9</b>	<b>I-10 WB Ramps / Cherry Valley Bl.</b>	<b>10</b>	<b>Calimesa Bl. / Cherry Valley Bl.</b>	<b>11</b>	<b>Calimesa Bl. / I-10 WB off-ramp</b>	<b>12</b>	<b>Roberts Rd. / Singleton Rd.</b>
	↑ 549(417) ← 404(404)		41(95) ↓ 36(86) ↑ 132(35) ← 911(726)		202(417) ↓ 324(376) ↓ 2(1) ↓ 519(228) ↑		9(15) ↓ 36(144) ↑ 55(30) ← 155(77) ↑ 97(106)
	626(454) ↓ 469(712) → 185(229) ↓ 11(8) ↑ 281(231) ↑	282(61) ↓ 468(882) →				47(198) ↓ 3(13) ↓ 10(5) ↓ 22(15) ↑ 70(94) ↑	
<b>13</b>	<b>Calimesa Bl. / PA-1 Dwy. 1</b>	<b>14</b>	<b>Calimesa Bl. / PA-1 Dwy. 2</b>	<b>15</b>	<b>Calimesa Bl. / PA-1 Dwy. 3</b>	<b>16</b>	<b>Calimesa Bl. / PA-1 Dwy. 4</b>
	← 45(160)		← 45(160)		← 45(160)		← 45(160)
	↑ 379(70)		↑ 379(70)		↑ 379(70)		↑ 379(70)
<b>17</b>	<b>Calimesa Bl. / PA-2 Dwy.</b>						
	← 45(160)						
	↑ 379(70)						

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



**EXHIBIT 5-2: OPENING YEAR (2025) CUMULATIVE WITHOUT PROJECT AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>	
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>	
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>	
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>	
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>	<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p> <p><b>FUTURE INTERSECTION</b></p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>



**LEGEND:**

- 17 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

### **5.2.2 PROJECT SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)**

Opening Year Cumulative (2025) With Project Scenario 1 (PAs 1 and 2) weekday AM and PM peak hour volumes are shown on Exhibit 5-3. Opening Year Cumulative (2025) With Project Scenario 1 (PAs 1 and 2) ADT volumes are shown on Exhibit 5-4. As shown on Table 5-1, the following study area intersections are anticipated to operate at an unacceptable LOS during one or more peak hours with the addition of Project Scenario 1 traffic:

- I-10 Eastbound Ramps & Singleton Road (#1) – LOS F AM and PM peak hours

Intersection analysis worksheets for Opening Year Cumulative (2025) With Project Scenario 1 conditions are included in Appendix 5.2.

### **5.2.3 PROJECT SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)**

Opening Year Cumulative (2025) With Project Scenario 2 weekday AM and PM peak hour volumes are shown on Exhibit 5-5. Opening Year Cumulative (2025) With Project Scenario 2 ADT volumes are shown on Exhibit 5-6. As shown on Table 5-1, the following study area intersections are anticipated to operate at an unacceptable LOS during one or more peak hours with the addition of Project Scenario 2 traffic:

- I-10 Eastbound Ramps & Singleton Road (#1) – LOS F AM and PM peak hours
- I-10 Westbound Ramps & Singleton Road (#2) – LOS F PM peak hour only

Intersection analysis worksheets for Opening Year Cumulative (2025) With Project Scenario 2 conditions are included in Appendix 5.3.

## **5.3 OPENING YEAR CUMULATIVE (2025) TRAFFIC SIGNAL WARRANT ANALYSIS**

The traffic signal warrant analysis for Opening Year Cumulative (2025) traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. Table 1-2 indicates the traffic signal warrants for Opening Year Cumulative (2025) traffic conditions.

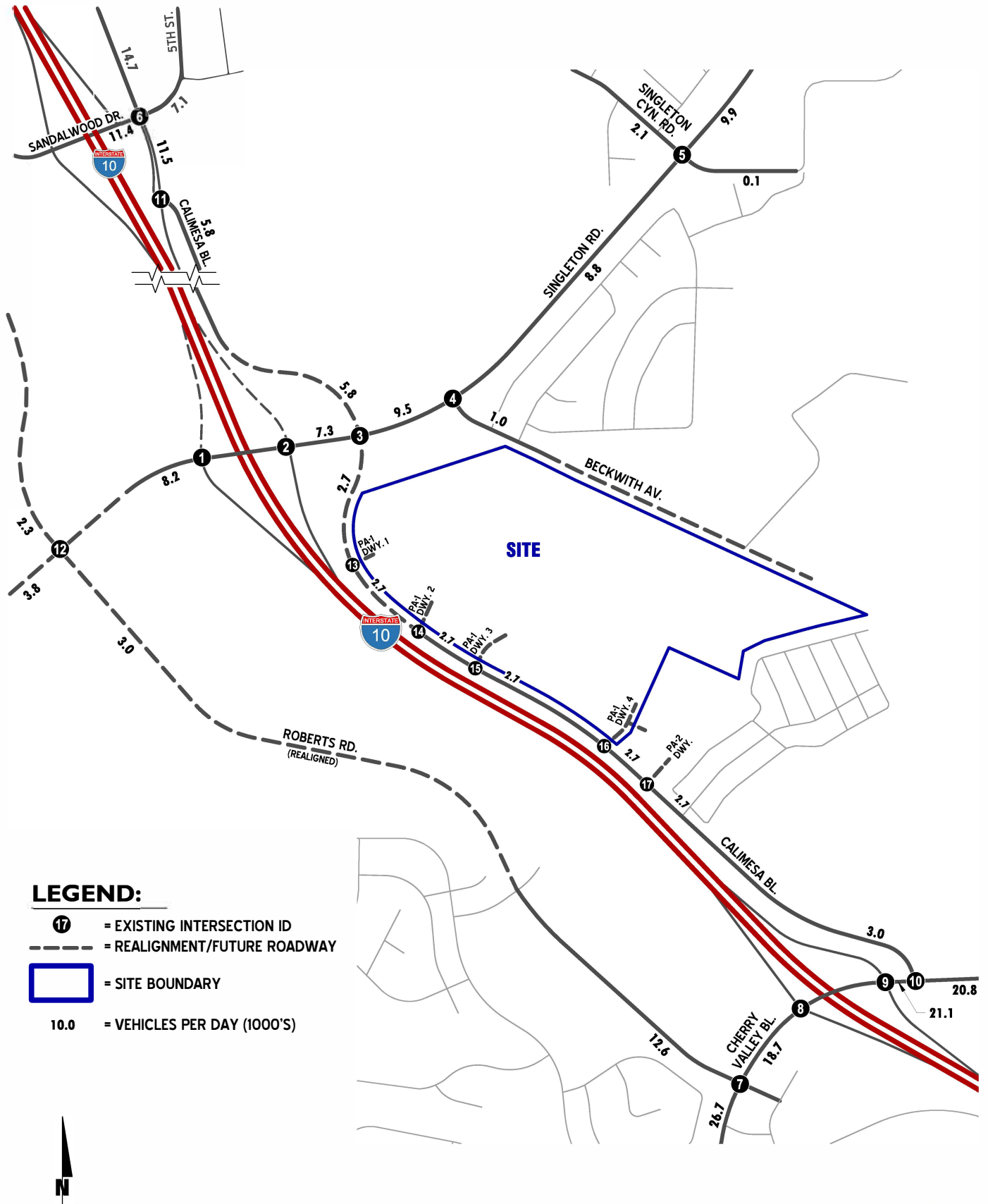
In addition to the intersection locations previously identified to meet signal warrants for existing conditions, the intersections of I-10 Eastbound Ramps at Singleton Road, I-10 Westbound Ramps at Singleton Road, Calimesa Boulevard at Cherry Valley Boulevard, and Calimesa Boulevard at I-10 Westbound Ramps are anticipated to meet traffic signal warrants for Opening Year Cumulative (2025) traffic conditions (see Appendix 5.4).

**EXHIBIT 5-3: OPENING YEAR CUMULATIVE (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT PEAK HOUR TRAFFIC VOLUMES**

<p><b>1</b> I-10 EB Ramps / Singleton Rd.</p> <p>209(122) ↓ 114(160) ↓ 156(109) ← 358(239) ↖</p> <p>112(295) → 41(141) ↘</p>	<p><b>2</b> I-10 WB Ramps / Singleton Rd.</p> <p>72(240) → 154(215) →</p> <p>111(63) ↖ 232(823) ↘</p> <p>266(316) ↑ 402(286) ↑</p>	<p><b>3</b> Calimesa Bl. / Singleton Rd.</p> <p>141(137) ↓ 26(110) ↓ 64(159) ↓</p> <p>77(91) → 196(319) → 113(129) ↘</p> <p>81(159) ↖ 244(56) ↑ 136(26) ↘</p> <p>176(72) ↑ 447(305) ↑ 29(54) ↖</p>	<p><b>4</b> Beckwith Av. / Singleton Rd.</p> <p>631(414) ← 3(5) ↖</p> <p>384(475) → 12(29) ↘</p> <p>21(17) ↖ 2(4) ↘</p>
<p><b>5</b> Singleton Cyn. Rd. / Singleton Rd.</p> <p>108(42) ↓ 1(1) ↓ 21(17) ↓</p> <p>13(14) ↑ 498(357) ↑ 1(1) ↑</p> <p>34(89) ↖ 347(391) → 4(1) ↘</p> <p>7(1) ↖ 1(1) ↑ 1(2) ↘</p>	<p><b>6</b> Calimesa Bl. / Sandalwood Dr. - 5th St.</p> <p>309(340) ↓ 148(296) ↓ 23(32) ↓</p> <p>20(28) ↑ 318(189) ↑ 17(40) ↑</p> <p>131(96) ↖ 181(90) → 42(86) ↘</p> <p>223(82) ↖ 461(360) ↑ 162(171) ↘</p>	<p><b>7</b> Roberts Rd. / Cherry Valley Bl.</p> <p>221(237) ↓ 21(12) ↓ 468(266) ↓</p> <p>338(346) ↑ 371(578) ↑ 127(258) ↑</p> <p>306(161) ↖ 420(509) → 21(24) ↘</p> <p>12(24) ↖ 23(8) ↑ 121(139) ↘</p>	<p><b>8</b> I-10 EB Ramps / Cherry Valley Bl.</p> <p>415(728) ↓ 291(476) ↓</p> <p>420(453) ← 200(247) ↖</p> <p>812(695) → 197(219) ↘</p>
<p><b>9</b> I-10 WB Ramps / Cherry Valley Bl.</p> <p>549(417) ↑ 436(468) ↑</p> <p>626(454) → 475(717) →</p> <p>185(229) ↖ 11(8) ↑ 321(278) ↘</p>	<p><b>10</b> Calimesa Bl. / Cherry Valley Bl.</p> <p>73(159) ↓ 39(95) ↓</p> <p>138(40) ↑ 911(726) ↑</p> <p>328(113) ↖ 468(882) →</p>	<p><b>11</b> Calimesa Bl. / I-10 WB off-ramp</p> <p>208(422) ↓</p> <p>324(376) ↖ 2(1) ↘</p> <p>522(237) →</p>	<p><b>12</b> Roberts Rd. / Singleton Rd.</p> <p>9(15) ↓ 36(144) ↓</p> <p>55(30) ↑ 155(77) ↑ 97(106) ↑</p> <p>47(198) → 3(13) ↘</p> <p>10(5) ↖ 22(15) ↑ 70(94) ↘</p>
<p><b>13</b> Calimesa Bl. / PA-1 Dwy. 1</p> <p>154(287) ↓ 15(7) ↓</p> <p>5(19) ↑ 2(9) ↖</p> <p>457(222) → 7(4) ↘</p>	<p><b>14</b> Calimesa Bl. / PA-1 Dwy. 2</p> <p>120(278) ↓ 37(18) ↓</p> <p>11(47) ↑ 2(9) ↖</p> <p>453(178) → 7(4) ↘</p>	<p><b>15</b> Calimesa Bl. / PA-1 Dwy. 3</p> <p>72(190) ↓ 50(97) ↓</p> <p>60(77) ↑ 26(35) ↖</p> <p>400(105) → 23(42) ↘</p>	<p><b>16</b> Calimesa Bl. / PA-1 Dwy. 4</p> <p>76(214) ↓ 22(11) ↓</p> <p>7(28) ↑ 5(19) ↖</p> <p>417(120) → 15(7) ↘</p>
<p><b>17</b> Calimesa Bl. / PA-2 Dwy.</p> <p>80(233) ↓</p> <p>432(127) →</p>			

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

**EXHIBIT 5-2: OPENING YEAR (2025) CUMULATIVE WITHOUT PROJECT AVERAGE DAILY TRAFFIC VOLUMES**



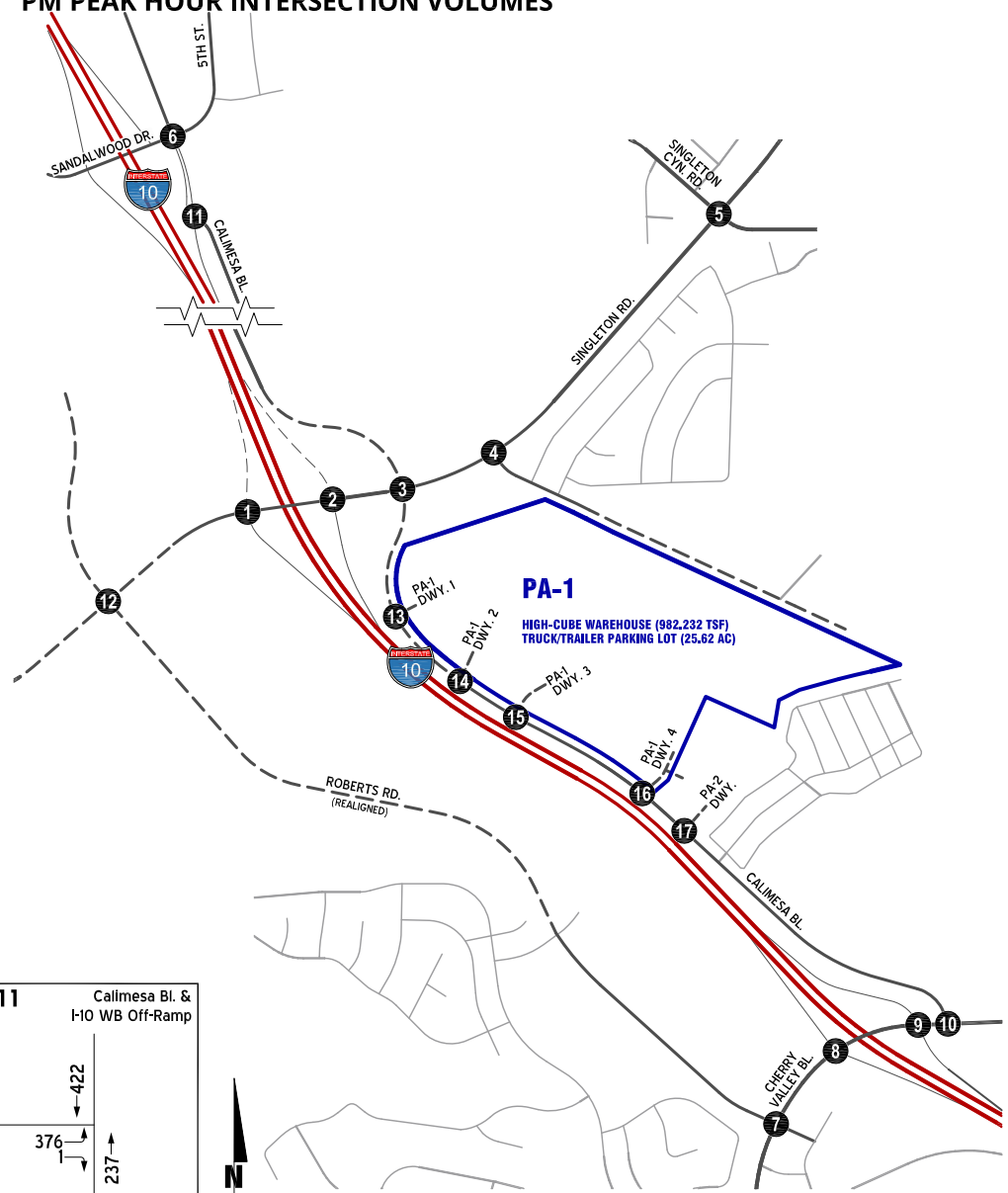
**EXHIBIT 5-5: OPENING YEAR CUMULATIVE (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT PEAK HOUR TRAFFIC VOLUMES**

<b>1</b>	<b>I-10 EB Ramps / Singleton Rd.</b>	<b>2</b>	<b>I-10 WB Ramps / Singleton Rd.</b>	<b>3</b>	<b>Calimesa Bl. / Singleton Rd.</b>	<b>4</b>	<b>Beckwith Av. / Singleton Rd.</b>
209(122) ↓ 112(295) → 41(141) ↓	283(395) ↓ ← 156(109) ↗ 427(251)	72(240) ↓ 323(450) → 111(63) ↓	483(355) ← 471(298) 286(398) ↑	141(137) ↓ 196(319) → 335(439) ↓	41(130) ↓ 77(91) ↓ 196(319) → 335(439) ↓	176(72) ← 447(305) 44(74) ↓ 367(211) ↓ 263(59) ↓ 155(29) ↓	646(434) ← 3(5) ↓ 2(4) ↑
<b>5</b>	<b>Singleton Cyn. Rd. / Singleton Rd.</b>	<b>6</b>	<b>Calimesa Bl. / Sandalwood Dr. - 5th St.</b>	<b>7</b>	<b>Roberts Rd. / Cherry Valley Bl.</b>	<b>8</b>	<b>I-10 EB Ramps / Cherry Valley Bl.</b>
108(42) ↓ 34(89) ↓ 366(394) → 4(1) ↓	1(1) ↓ 21(17) ↓ 13(14) ↑ 513(377) ↑ 1(1) ↓ 7(1) ↓ 1(1) ↓ 1(2) ↓	313(345) ↓ 136(97) ↓ 181(90) → 42(86) ↓	163(316) ↓ 23(82) ↓ 20(28) ↑ 318(189) ↑ 17(40) ↓ 223(82) ↓ 480(363) ↓ 162(171) ↓	221(237) ↓ 306(161) ↓ 435(529) → 21(24) ↓	21(12) ↓ 468(266) ↓ 338(346) ↑ 390(581) ↑ 127(258) ↓ 12(24) ↓ 23(8) ↓ 121(139) ↓	415(728) ↓ 827(715) → 197(219) ↓	291(476) ↓ 439(456) ↑ 301(265) ↓
<b>9</b>	<b>I-10 WB Ramps / Cherry Valley Bl.</b>	<b>10</b>	<b>Calimesa Bl. / Cherry Valley Bl.</b>	<b>11</b>	<b>Calimesa Bl. / I-10 WB off-ramp</b>	<b>12</b>	<b>Roberts Rd. / Singleton Rd.</b>
626(454) ↓ 490(737) → 185(229) ↓ 11(8) ↓ 400(387) ↓	549(417) ↑ 556(490) ↑ 193(181) ↓ 421(242) ↓ 468(882) →	58(98) ↓ 153(60) ↑ 911(726) ↑ 324(376) ↓ 2(1) ↓	223(442) ↓ 541(240) ↑	9(15) ↓ 36(144) ↓ 47(198) → 3(13) ↓	55(30) ↑ 155(77) ↑ 97(106) ↑ 10(5) ↓ 22(15) ↓ 70(94) ↓	55(30) ↑ 155(77) ↑ 97(106) ↑ 10(5) ↓ 22(15) ↓ 70(94) ↓	55(30) ↑ 155(77) ↑ 97(106) ↑ 10(5) ↓ 22(15) ↓ 70(94) ↓
<b>13</b>	<b>Calimesa Bl. / PA-1 Dwy. 1</b>	<b>14</b>	<b>Calimesa Bl. / PA-1 Dwy. 2</b>	<b>15</b>	<b>Calimesa Bl. / PA-1 Dwy. 3</b>	<b>16</b>	<b>Calimesa Bl. / PA-1 Dwy. 4</b>
369(586) ↓ 51(57) ↓ 25(14) ↓ 734(271) ↑ 25(29) ↓	51(27) ↑ 25(14) ↓ 632(232) ↑ 25(29) ↓	268(456) ↓ 127(143) ↓ 25(14) ↓ 632(232) ↑ 25(29) ↓	127(68) ↑ 25(14) ↓ 505(168) ↑ 58(91) ↓	171(273) ↓ 122(197) ↓ 71(43) ↓ 505(168) ↑ 58(91) ↓	152(93) ↑ 71(43) ↓ 505(168) ↑ 58(91) ↓	167(230) ↓ 76(86) ↓ 51(27) ↓ 488(218) ↑ 51(58) ↓	76(40) ↑ 51(27) ↓ 488(218) ↑ 51(58) ↓
<b>17</b>	<b>Calimesa Bl. / PA-2 Dwy.</b>						
218(258) ↓ 539(277) ↑							

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

**EXHIBIT 5-6: OPENING YEAR CUMULATIVE (2025)  
WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT,  
PM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>
<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>	



**LEGEND:**

- 17 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

## 5.4 OPENING YEAR CUMULATIVE (2025) DEFICIENCIES AND IMPROVEMENTS

This section provides a summary of deficiencies, based on the City of Calimesa's deficiency criteria discussed in Section 2.6 *Deficiency Criteria*, and improvements needed to improve operations back to acceptable levels.

The improvements needed to provide acceptable levels of service at each of the study area intersections under Opening Year Cumulative (2025) traffic conditions are shown on Table 5-2. The effectiveness of the recommended improvement strategies to address Opening Year Cumulative (2025) traffic deficiencies are presented in Table 5-3. Note that although the intersection of Calimesa Boulevard at I-10 Westbound Off-Ramps (#11) is anticipated to operate at a deficient LOS under Opening Year Cumulative (2025) Without Project traffic conditions, the addition of Project traffic (for both Scenarios) would increase the pre-project delay by less than 5.0 seconds which is below the City's threshold. As such, improvements have not been identified at this intersection. Appendices 5.5, 5.6, and 5.7 contain HCM calculation worksheets for the Opening Year Cumulative (2025) With Improvements for Without Project, With Project Scenario 1, and With Project Scenario 2 conditions, respectively.

Per request of the City of Calimesa, improvements for the Singleton Road / I-10 Freeway interchange for Opening Year Cumulative (2025) conditions have been conducted with the proposed lane geometrics consistent with the Intersection Control Evaluation (ICE) Report. (7) The roundabout and diverging diamond interchange control options are not feasible, nor recommended per the ICE report and have not been utilized in the operations analysis. The ICE proposed lane geometrics, shown on Exhibit 6-6, were not sufficient to improve operations for the Singleton Road / I-10 Freeway interchange back to acceptable levels, therefore alternative improvements to achieve acceptable LOS has also been included.

**TABLE 5-2: INTERSECTION APPROACH LANES FOR OPENING YEAR CUMULATIVE (2025) CONDITIONS WITH IMPROVEMENTS**

#	Intersection	Traffic Control <sup>1</sup>	Intersection Approach Lanes											
			Northbound			Southbound			Eastbound			Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
1	I-10 EB Ramps / Singleton Rd.													
	- No Improvements	CSS	0	0	0	0	0	0	0	1	0	0	1	0
	- Without Project	CSS	0	0	0	0	0	0	0	1	0	0	1	0
	- Project Scenario 1	<b>TS</b>	0	0	0	<b>0.5</b>	<b>0.5</b>	<b>1</b>	0	1	<b>1</b>	<b>1</b>	1	0
	- Project Scenario 2	<b>TS</b>	0	0	0	<b>0.5</b>	<b>0.5</b>	<b>1</b>	0	1	<b>1</b>	<b>1</b>	1	0
2	I-10 WB Ramps / Singleton Rd.													
	- No Improvements	CSS	0	1!	0	0	0	0	0	1	0	0	1	0
	- Without Project	<b>TS</b>	0	1!	0	0	0	0	<b>1</b>	1	0	0	1	<b>1</b>
	- Project Scenario 1	<b>TS</b>	0.5	0.5	d	0	0	0	<b>1</b>	1	0	0	1	<b>1</b>
	- Project Scenario 2	<b>TS</b>	0.5	0.5	d	0	0	0	<b>1</b>	1	0	0	1	<b>1</b>
3	Calimesa Bl. / Singleton Rd.													
	- No Improvements	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0
	- Without Project	<b>TS</b>	0	0.5	d	<b>1</b>	<b>1</b>	0	<b>1</b>	1	0	<b>1</b>	1	0
	- Project Scenario 1	<b>TS</b>	<b>1</b>	<b>1</b>	0	<b>1</b>	<b>1</b>	0	<b>1</b>	1	<b>1</b>	<b>1</b>	1	0
	- Project Scenario 2	<b>TS</b>	<b>2</b>	<b>1</b>	0	<b>1</b>	<b>1</b>	0	<b>1</b>	1	<b>1</b>	<b>1</b>	1	0
7	Roberts Rd. / Cherry Valley Bl.													
	- No Improvements	TS	1	1	1	0	1!	0	1	2	1	1	2	1
	- Without Project	TS	1	1	1	<b>1</b>	1	0	1	2	1	1	2	1
	- Project Scenario 1	TS	1	1	1	<b>1</b>	1	0	1	2	1	1	2	1
	- Project Scenario 2	TS	1	1	1	<b>1</b>	1	0	1	2	1	1	2	1
8	I-10 EB Ramps / Cherry Valley Bl.													
	- No Improvements	AWS	0	0	0	0.5	0.5	d	0	1	0	0.5	0.5	0
	- Without Project	<b>TS</b>	0	0	0	0.5	0.5	<b>1</b>	0	1	<b>1</b>	<b>1</b>	1	0
	- Project Scenario 1	<b>TS</b>	0	0	0	0.5	0.5	<b>1</b>	0	1	<b>1</b>	<b>1</b>	1	0
	- Project Scenario 2	<b>TS</b>	0	0	0	0.5	0.5	<b>1</b>	0	1	<b>1</b>	<b>1</b>	1	0
9	I-10 WB Ramps / Cherry Valley Bl.													
	- No Improvements	AWS	0	1!	0	0	0	0	0.5	0.5	0	0	1	0
	- Without Project	<b>TS</b>	0.5	0.5	<b>1</b>	0	0	0	<b>1</b>	1	0	0	1	<b>1</b>
	- Project Scenario 1	<b>TS</b>	0.5	0.5	<b>1</b>	0	0	0	<b>1</b>	1	0	0	1	<b>1</b>
	- Project Scenario 2	<b>TS</b>	0.5	0.5	<b>1</b>	0	0	0	<b>1</b>	1	0	0	1	<b>1</b>
10	Calimesa Bl. / Cherry Valley Bl.													
	- No Improvements	CSS	0	0	0	0.5	0	0.5	0.5	0.5	0	0	1	0
	- Without Project	<b>TS</b>	0	0	0	1	0	<b>1</b>	<b>1</b>	1	0	0	<b>2</b>	0
	- Project Scenario 1	<b>TS</b>	0	0	0	1	0	<b>1</b>	<b>1</b>	1	0	0	<b>2</b>	0
	- Project Scenario 2	<b>TS</b>	0	0	0	1	0	<b>1</b>	<b>1</b>	1	0	0	<b>2</b>	0

<sup>1</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop; TS = Traffic Signal; **TS** = Improvement  
 L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right Turn Overlap Phasing; **1** = Cumulative Improvement; **1** = Project Improvement



**TABLE 5-3: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2025) CONDITIONS WITH IMPROVEMENTS**

#	Intersection	Traffic Control <sup>1</sup>	2025 Without Project				2025 With Project (Scenario 1)				2025 With Project (Scenario 2)			
			Delay <sup>2</sup> (secs.)		Level of Service		Delay <sup>2</sup> (secs.)		Level of Service		Delay <sup>2</sup> (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-10 EB Ramps / Singleton Rd.													
	- Without Improvements	CSS	16.1	20.3	C	C	<b>91.5</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>
	- With Improvements	<b>TS</b>	33.9	27.8	C	C	34.5	30.7	C	C	36.1	35.9	D	D
2	I-10 WB Ramps / Singleton Rd.													
	- Without Improvements	CSS	13.4	12.9	B	B	16.3	16.3	C	C	<b>34.0</b>	<b>54.2</b>	<b>D</b>	<b>F</b>
	- With Improvements	<b>TS</b>	21.2	31.5	C	C	21.2	32.1	C	C	19.6	30.9	B	C
3	Calimesa Bl. / Singleton Rd.													
	- Without Improvements	AWS	<b>&gt;100.0</b>	<b>31.4</b>	<b>F</b>	<b>D</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>
	- With Improvements	<b>TS</b>	52.6	32.9	D	C	43.4	35.4	D	D	49.0	33.7	D	C
7	Roberts Rd. / Cherry Valley Bl.													
	- Without Improvements	TS	<b>128.1</b>	35.9	<b>F</b>	D	<b>173.7</b>	41.8	<b>F</b>	D	<b>171.6</b>	41.6	<b>F</b>	D
	- With Improvements	TS	47.5	29.8	D	C	13.8	10.7	B	B	13.8	10.7	B	B
8	I-10 EB Ramps / Cherry Valley Bl.													
	- Without Improvements	AWS	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>
	- With Improvements	<b>TS</b>	33.1	37.1	C	D	35.1	40.8	D	D	42.7	43.3	D	D
9	I-10 WB Ramps / Cherry Valley Bl.													
	- Without Improvements	AWS	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>
	- With Improvements	<b>TS</b>	28.5	28.8	C	C	30.6	30.8	C	C	36.7	37.4	D	D
10	Calimesa Bl. / Cherry Valley Bl.													
	- Without Improvements	CSS	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>	<b>&gt;100.0</b>	<b>&gt;100.0</b>	<b>F</b>	<b>F</b>
	- With Improvements	<b>TS</b>	24.8	11.3	C	B	27.0	15.4	C	B	36.5	20.0	D	B

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

<sup>1</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop; TS = Traffic Signal; **TS** = Improvement

<sup>2</sup> 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.

## 6 INTERIM YEAR CUMULATIVE (2028) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Interim Year Cumulative (2028) conditions and the resulting intersection operations and traffic signal warrant analyses.

### 6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Interim Cumulative (2028) 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 Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).

### 6.2 INTERIM YEAR CUMULATIVE (2028) INTERSECTION OPERATIONS ANALYSIS

Interim Year Cumulative (2028) 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. LOS calculations were conducted for the study intersections to evaluate their operations under Interim Year Cumulative (2028) Without Project conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. The intersection analysis results for Cumulative (2028) traffic conditions without and with the Project are summarized on Table 6-1. Intersection operations analysis worksheets are provided in each appendix indicated below.

#### 6.2.1 WITHOUT PROJECT

Interim Year Cumulative (2028) Without Project weekday AM and PM peak hour volumes are shown on Exhibit 6-1. Interim Year Cumulative (2028) Without Project ADT volumes are shown on Exhibit 6-2. Interim Year Cumulative (2028) Without Project Sunday morning peak hour volumes are shown on Exhibit 6-3. As shown on Table 6-1, the following study area intersections are anticipated to operate at an unacceptable LOS under Interim Year Cumulative (2028) Without Project traffic conditions:

- I-10 Eastbound Ramps & Singleton Road (#1) – LOS D AM peak hour; LOS F PM and Sunday peak hours
- I-10 Westbound Ramps & Singleton Road (#2) – LOS F AM, PM, and Sunday peak hours
- Calimesa Boulevard & Singleton Road (#3) – LOS F AM, PM, and Sunday peak hours
- Beckwith Avenue & Singleton Road (#4) – LOS F AM, PM, and Sunday peak hours
- Calimesa Boulevard & Sandalwood Drive (#6) – LOS F AM and PM peak hours
- Roberts Road & Cherry Valley Boulevard (#7) – LOS F AM, PM, and Sunday peak hours
- I-10 Eastbound Ramps & Cherry Valley Boulevard (#8) – LOS F AM, PM, and Sunday peak hours
- I-10 Westbound Ramps & Cherry Valley Boulevard (#9) – LOS F AM, PM, and Sunday peak hours

**TABLE 6-1: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2028) CONDITIONS**

#	Intersection	Traffic Control <sup>2</sup>	2028 Without Project						2028 With Project (Scenario 1)				Scenario 1 Related		2028 With Project (Scenario 2)				Scenario 2 Related		2028 With Project (Scenario 3)		Scenario 3 Related
			Delay <sup>1</sup> (secs.)			Level of Service			Delay <sup>1</sup> (secs.)		Level of Service		Increase in Delay (secs.) <sup>3</sup>		Delay <sup>1</sup> (secs.)		Level of Service		Increase in Delay (secs.) <sup>3</sup>		Delay <sup>1</sup> (secs.)	Level of Service	Increase in Delay (secs.) <sup>3</sup>
			AM	PM	Sun	AM	PM	Sun	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	Sun	Sun	Sun
1	I-10 EB Ramps / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
2	I-10 WB Ramps / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
3	Calimesa Bl. / Singleton Rd.	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
4	Beckwith Av. / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
5	Singleton Cyn. Rd. / Singleton Rd.	AWS	18.7	17.8	12.1	C	C	B	19.2	18.3	C	C	--	--	20.2	19.1	C	C	--	--	12.5	B	--
6	Calimesa Bl. / Sandalwood Dr.	TS	>100.0	>100.0	34.0	F	F	C	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	34.4	C	--
7	Roberts Rd. / Cherry Valley Bl.	TS	166.5	85.1	96.4	F	F	F	>200.0	95.9	F	F	>5.0	10.8	>200.0	95.4	F	F	>5.0	10.3	115.7	F	19.3
8	I-10 EB Ramps / Cherry Valley Bl.	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
9	I-10 WB Ramps / Cherry Valley Bl.	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
10	Calimesa Bl. / Cherry Valley Bl.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
11	Calimesa Bl. / I-10 WB off-ramp	AWS	>100.0	>100.0	16.8	F	F	C	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	18.4	C	--
12	Roberts Rd. / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0
13	Calimesa Bl. / PA-1 Dwy. 1	CSS	Future Intersection						11.5	10.9	B	B	--	--	17.1	13.1	C	B	--	--	10.7	B	--
14	Calimesa Bl. / PA-1 Dwy. 2	CSS	Future Intersection						11.0	10.2	B	B	--	--	16.7	12.1	C	B	--	--	10.0	B	--
15	Calimesa Bl. / PA-1 Dwy. 3	CSS/TS	Future Intersection						12.3	11.7	B	B	--	--	6.9	5.6	A	A	--	--	10.3	A	--
16	Calimesa Bl. / PA-1 Dwy. 4	CSS	Future Intersection						11.9	10.8	B	B	--	--	16.9	13.0	C	B	--	--	13.9	B	--
17	Calimesa Bl. / PA-2 Dwy.	CSS	Future Intersection						12.1	10.5	B	B	--	--	14.3	11.8	B	B	--	--	14.9	B	--

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

<sup>1</sup> 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.

<sup>2</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop; TS = Traffic Signal; **TS** = Improvement

<sup>3</sup> Project-related increase in delay is only calculated for deficient intersections within the jurisdiction of the City of Calimesa. An increase in delay greater than 5.0 seconds is assumed for unsignalized delays greater than 100 seconds and signalized delays greater than 200 seconds

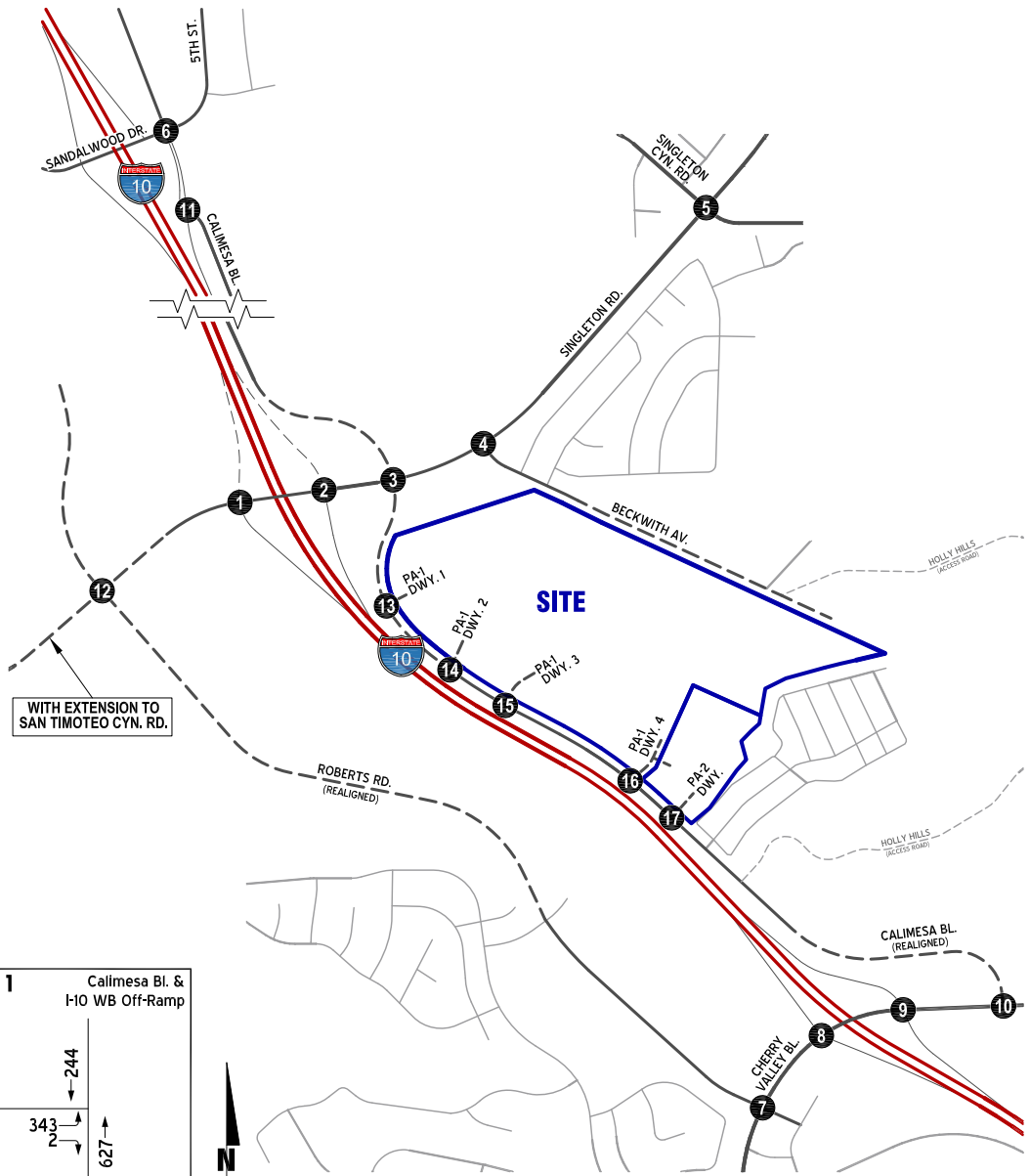
**EXHIBIT 6-1: INTERIM YEAR CUMULATIVE (2028) WITHOUT PROJECT WEEKDAY AM AND PM PEAK HOUR TRAFFIC VOLUMES**

<p><b>1</b> I-10 EB Ramps / Singleton Rd.</p> <table border="1"> <tr> <td>↓ 298(577)</td> <td>↑ 439(841)</td> </tr> <tr> <td>↖ 113(326)</td> <td>↗ 445(352)</td> </tr> <tr> <td>652(858) →</td> <td></td> </tr> <tr> <td>334(431) ↘</td> <td></td> </tr> </table>	↓ 298(577)	↑ 439(841)	↖ 113(326)	↗ 445(352)	652(858) →		334(431) ↘		<p><b>2</b> I-10 WB Ramps / Singleton Rd.</p> <table border="1"> <tr> <td>↑ 388(409)</td> <td>↖ 374(529) ↘</td> </tr> <tr> <td>← 650(725)</td> <td>↗ 391(656) →</td> </tr> <tr> <td>235(470)</td> <td>↖ 274(475) ↘</td> </tr> </table>	↑ 388(409)	↖ 374(529) ↘	← 650(725)	↗ 391(656) →	235(470)	↖ 274(475) ↘	<p><b>3</b> Calimesa Bl. / Singleton Rd.</p> <table border="1"> <tr> <td>↓ 182(244)</td> <td>↑ 202(94)</td> </tr> <tr> <td>↖ 22(118)</td> <td>↗ 807(797)</td> </tr> <tr> <td>↘ 75(191)</td> <td>↖ 30(74)</td> </tr> <tr> <td>171(158) ↘</td> <td>↗ 50(90)</td> </tr> <tr> <td>462(874) →</td> <td>↖ 257(58)</td> </tr> <tr> <td>33(99) ↘</td> <td>↗ 147(40)</td> </tr> </table>	↓ 182(244)	↑ 202(94)	↖ 22(118)	↗ 807(797)	↘ 75(191)	↖ 30(74)	171(158) ↘	↗ 50(90)	462(874) →	↖ 257(58)	33(99) ↘	↗ 147(40)	<p><b>4</b> Beckwith Av. / Singleton Rd.</p> <table border="1"> <tr> <td>↖ 797(679)</td> <td>↗ 20(63)</td> </tr> <tr> <td>30(169) ↘</td> <td>↖ 52(38)</td> </tr> <tr> <td>559(731) →</td> <td>↗ 224(151) ↘</td> </tr> <tr> <td>81(255) ↘</td> <td></td> </tr> </table>	↖ 797(679)	↗ 20(63)	30(169) ↘	↖ 52(38)	559(731) →	↗ 224(151) ↘	81(255) ↘											
↓ 298(577)	↑ 439(841)																																														
↖ 113(326)	↗ 445(352)																																														
652(858) →																																															
334(431) ↘																																															
↑ 388(409)	↖ 374(529) ↘																																														
← 650(725)	↗ 391(656) →																																														
235(470)	↖ 274(475) ↘																																														
↓ 182(244)	↑ 202(94)																																														
↖ 22(118)	↗ 807(797)																																														
↘ 75(191)	↖ 30(74)																																														
171(158) ↘	↗ 50(90)																																														
462(874) →	↖ 257(58)																																														
33(99) ↘	↗ 147(40)																																														
↖ 797(679)	↗ 20(63)																																														
30(169) ↘	↖ 52(38)																																														
559(731) →	↗ 224(151) ↘																																														
81(255) ↘																																															
<p><b>5</b> Singleton Cyn. Rd. / Singleton Rd.</p> <table border="1"> <tr> <td>↑ 14(15)</td> <td>↖ 118(54)</td> </tr> <tr> <td>↗ 670(665)</td> <td>↘ 1(1)</td> </tr> <tr> <td>↖ 1(1)</td> <td>↗ 23(18)</td> </tr> <tr> <td>38(105) ↘</td> <td>↖ 8(1)</td> </tr> <tr> <td>568(664) →</td> <td>↗ 1(1)</td> </tr> <tr> <td>5(1) ↘</td> <td>↖ 1(2)</td> </tr> </table>	↑ 14(15)	↖ 118(54)	↗ 670(665)	↘ 1(1)	↖ 1(1)	↗ 23(18)	38(105) ↘	↖ 8(1)	568(664) →	↗ 1(1)	5(1) ↘	↖ 1(2)	<p><b>6</b> Calimesa Bl. / Sandalwood Dr. - 5th St.</p> <table border="1"> <tr> <td>↑ 21(29)</td> <td>↖ 452(502)</td> </tr> <tr> <td>↗ 450(327)</td> <td>↘ 164(355)</td> </tr> <tr> <td>↖ 34(91)</td> <td>↗ 25(34)</td> </tr> <tr> <td>248(190) ↘</td> <td>↖ 1009(1036)</td> </tr> <tr> <td>289(178) →</td> <td>↗ 523(403)</td> </tr> <tr> <td>109(132) ↘</td> <td>↖ 210(215)</td> </tr> </table>	↑ 21(29)	↖ 452(502)	↗ 450(327)	↘ 164(355)	↖ 34(91)	↗ 25(34)	248(190) ↘	↖ 1009(1036)	289(178) →	↗ 523(403)	109(132) ↘	↖ 210(215)	<p><b>7</b> Roberts Rd. / Cherry Valley Bl.</p> <table border="1"> <tr> <td>↑ 374(434)</td> <td>↖ 283(317)</td> </tr> <tr> <td>↗ 432(665)</td> <td>↘ 23(12)</td> </tr> <tr> <td>↖ 135(274)</td> <td>↗ 534(325)</td> </tr> <tr> <td>340(259) ↘</td> <td>↖ 12(26)</td> </tr> <tr> <td>486(592) →</td> <td>↗ 25(9)</td> </tr> <tr> <td>23(26) ↘</td> <td>↖ 128(148)</td> </tr> </table>	↑ 374(434)	↖ 283(317)	↗ 432(665)	↘ 23(12)	↖ 135(274)	↗ 534(325)	340(259) ↘	↖ 12(26)	486(592) →	↗ 25(9)	23(26) ↘	↖ 128(148)	<p><b>8</b> I-10 EB Ramps / Cherry Valley Bl.</p> <table border="1"> <tr> <td>↖ 493(576)</td> <td>↗ 446(797)</td> </tr> <tr> <td>↖ 313(336)</td> <td>↘ 357(546)</td> </tr> <tr> <td>945(847) →</td> <td></td> </tr> <tr> <td>203(218) ↘</td> <td></td> </tr> </table>	↖ 493(576)	↗ 446(797)	↖ 313(336)	↘ 357(546)	945(847) →		203(218) ↘	
↑ 14(15)	↖ 118(54)																																														
↗ 670(665)	↘ 1(1)																																														
↖ 1(1)	↗ 23(18)																																														
38(105) ↘	↖ 8(1)																																														
568(664) →	↗ 1(1)																																														
5(1) ↘	↖ 1(2)																																														
↑ 21(29)	↖ 452(502)																																														
↗ 450(327)	↘ 164(355)																																														
↖ 34(91)	↗ 25(34)																																														
248(190) ↘	↖ 1009(1036)																																														
289(178) →	↗ 523(403)																																														
109(132) ↘	↖ 210(215)																																														
↑ 374(434)	↖ 283(317)																																														
↗ 432(665)	↘ 23(12)																																														
↖ 135(274)	↗ 534(325)																																														
340(259) ↘	↖ 12(26)																																														
486(592) →	↗ 25(9)																																														
23(26) ↘	↖ 128(148)																																														
↖ 493(576)	↗ 446(797)																																														
↖ 313(336)	↘ 357(546)																																														
945(847) →																																															
203(218) ↘																																															
<p><b>9</b> I-10 WB Ramps / Cherry Valley Bl.</p> <table border="1"> <tr> <td>↑ 613(509)</td> <td>↖ 686(496)</td> </tr> <tr> <td>↗ 616(673)</td> <td>↘ 11(9)</td> </tr> <tr> <td>↖ 189(240)</td> <td>↗ 377(405)</td> </tr> <tr> <td>616(898) →</td> <td></td> </tr> </table>	↑ 613(509)	↖ 686(496)	↗ 616(673)	↘ 11(9)	↖ 189(240)	↗ 377(405)	616(898) →		<p><b>10</b> Calimesa Bl. / Cherry Valley Bl.</p> <table border="1"> <tr> <td>↑ 152(74)</td> <td>↖ 236(248)</td> </tr> <tr> <td>↗ 994(934)</td> <td>↘ 65(118)</td> </tr> <tr> <td>371(298) ↘</td> <td></td> </tr> <tr> <td>623(1006) →</td> <td></td> </tr> </table>	↑ 152(74)	↖ 236(248)	↗ 994(934)	↘ 65(118)	371(298) ↘		623(1006) →		<p><b>11</b> Calimesa Bl. / I-10 WB off-ramp</p> <table border="1"> <tr> <td>↑ 66(83)</td> <td>↖ 244(538)</td> </tr> <tr> <td>343(399) ↘</td> <td></td> </tr> <tr> <td>64(41) →</td> <td></td> </tr> <tr> <td>2(1) ↘</td> <td></td> </tr> <tr> <td>1333(1172) ↘</td> <td></td> </tr> </table>	↑ 66(83)	↖ 244(538)	343(399) ↘		64(41) →		2(1) ↘		1333(1172) ↘		<p><b>12</b> Roberts Rd. / Singleton Rd.</p> <table border="1"> <tr> <td>↑ 210(529)</td> <td>↖ 9(4)</td> </tr> <tr> <td>↗ 286(508)</td> <td>↘ 61(54)</td> </tr> <tr> <td>↖ 165(299)</td> <td>↗ 483(435)</td> </tr> <tr> <td>17(18) ↘</td> <td>↖ 384(455)</td> </tr> <tr> <td>384(455) →</td> <td>↗ 88(98)</td> </tr> <tr> <td>88(98) ↘</td> <td>↖ 41(129)</td> </tr> <tr> <td>41(129) ↘</td> <td>↗ 41(72)</td> </tr> <tr> <td>41(72) ↘</td> <td>↖ 106(309)</td> </tr> </table>	↑ 210(529)	↖ 9(4)	↗ 286(508)	↘ 61(54)	↖ 165(299)	↗ 483(435)	17(18) ↘	↖ 384(455)	384(455) →	↗ 88(98)	88(98) ↘	↖ 41(129)	41(129) ↘	↗ 41(72)	41(72) ↘	↖ 106(309)		
↑ 613(509)	↖ 686(496)																																														
↗ 616(673)	↘ 11(9)																																														
↖ 189(240)	↗ 377(405)																																														
616(898) →																																															
↑ 152(74)	↖ 236(248)																																														
↗ 994(934)	↘ 65(118)																																														
371(298) ↘																																															
623(1006) →																																															
↑ 66(83)	↖ 244(538)																																														
343(399) ↘																																															
64(41) →																																															
2(1) ↘																																															
1333(1172) ↘																																															
↑ 210(529)	↖ 9(4)																																														
↗ 286(508)	↘ 61(54)																																														
↖ 165(299)	↗ 483(435)																																														
17(18) ↘	↖ 384(455)																																														
384(455) →	↗ 88(98)																																														
88(98) ↘	↖ 41(129)																																														
41(129) ↘	↗ 41(72)																																														
41(72) ↘	↖ 106(309)																																														
<p><b>13</b> Calimesa Bl. / PA-1 Dwy. 1</p> <table border="1"> <tr> <td>← 65(248)</td> <td>→ 450(133)</td> </tr> </table>	← 65(248)	→ 450(133)	<p><b>14</b> Calimesa Bl. / PA-1 Dwy. 2</p> <table border="1"> <tr> <td>← 65(248)</td> <td>→ 450(133)</td> </tr> </table>	← 65(248)	→ 450(133)	<p><b>15</b> Calimesa Bl. / PA-1 Dwy. 3</p> <table border="1"> <tr> <td>← 65(248)</td> <td>→ 450(133)</td> </tr> </table>	← 65(248)	→ 450(133)	<p><b>16</b> Calimesa Bl. / PA-1 Dwy. 4</p> <table border="1"> <tr> <td>← 65(248)</td> <td>→ 450(133)</td> </tr> </table>	← 65(248)	→ 450(133)																																				
← 65(248)	→ 450(133)																																														
← 65(248)	→ 450(133)																																														
← 65(248)	→ 450(133)																																														
← 65(248)	→ 450(133)																																														
<p><b>17</b> Calimesa Bl. / PA-2 Dwy.</p> <table border="1"> <tr> <td>← 64(240)</td> <td>↑ 2(7)</td> </tr> <tr> <td>↖ 1(8)</td> <td>↗ 448(126)</td> </tr> </table>				← 64(240)	↑ 2(7)	↖ 1(8)	↗ 448(126)																																								
← 64(240)	↑ 2(7)																																														
↖ 1(8)	↗ 448(126)																																														

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

**EXHIBIT 6-2: INTERIM YEAR CUMULATIVE (2028) WITHOUT PROJECT  
AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>	
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>	
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>	
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>	
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>	<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p> <p><b>FUTURE INTERSECTION</b></p>



**LEGEND:**

- 17 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

**EXHIBIT 6-3: INTERIM YEAR CUMULATIVE (2028) WITHOUT PROJECT SUNDAY MORNING TRAFFIC VOLUMES**

<p><b>1</b> I-10 EB Ramps / Singleton Rd.</p> <table border="1"> <tr> <td>6052 ↓</td> <td>2436 ↓</td> <td>8555 ↑</td> <td>1739 ↑</td> </tr> <tr> <td>9652 →</td> <td>4950 ↓</td> <td></td> <td></td> </tr> </table>	6052 ↓	2436 ↓	8555 ↑	1739 ↑	9652 →	4950 ↓			<p><b>2</b> I-10 WB Ramps / Singleton Rd.</p> <table border="1"> <tr> <td></td> <td></td> <td>2435 ↑</td> <td>5330 ↑</td> </tr> <tr> <td>6052 ↓</td> <td>6037 →</td> <td>4963 ↓</td> <td>1687 ↓</td> </tr> </table>			2435 ↑	5330 ↑	6052 ↓	6037 →	4963 ↓	1687 ↓	<p><b>3</b> Calimesa Bl. / Singleton Rd.</p> <table border="1"> <tr> <td>1036 ↓</td> <td>151 ↓</td> <td>329 ↓</td> <td>334 ↑</td> <td>5734 ↑</td> <td>272 ↑</td> </tr> <tr> <td>1057 ↓</td> <td>5672 →</td> <td>996 ↓</td> <td>130 →</td> <td>277 ↓</td> <td></td> </tr> </table>	1036 ↓	151 ↓	329 ↓	334 ↑	5734 ↑	272 ↑	1057 ↓	5672 →	996 ↓	130 →	277 ↓		<p><b>4</b> Beckwith Av. / Singleton Rd.</p> <table border="1"> <tr> <td></td> <td></td> <td>2999 ↑</td> <td>487 ↑</td> </tr> <tr> <td>2027 ↓</td> <td>2945 →</td> <td>1953 ↓</td> <td>489 ↓</td> </tr> </table>			2999 ↑	487 ↑	2027 ↓	2945 →	1953 ↓	489 ↓									
6052 ↓	2436 ↓	8555 ↑	1739 ↑																																													
9652 →	4950 ↓																																															
		2435 ↑	5330 ↑																																													
6052 ↓	6037 →	4963 ↓	1687 ↓																																													
1036 ↓	151 ↓	329 ↓	334 ↑	5734 ↑	272 ↑																																											
1057 ↓	5672 →	996 ↓	130 →	277 ↓																																												
		2999 ↑	487 ↑																																													
2027 ↓	2945 →	1953 ↓	489 ↓																																													
<p><b>5</b> Singleton Cyn. Rd. / Singleton Rd.</p> <table border="1"> <tr> <td>160 ↓</td> <td>1 ↓</td> <td>8 ↓</td> <td>6 ↑</td> <td>3335 ↑</td> </tr> <tr> <td>148 ↓</td> <td>3250 →</td> <td>1 ↓</td> <td>2 ↓</td> <td>1 ↑</td> <td>1 ↑</td> </tr> </table>	160 ↓	1 ↓	8 ↓	6 ↑	3335 ↑	148 ↓	3250 →	1 ↓	2 ↓	1 ↑	1 ↑	<p><b>6</b> Calimesa Bl. / Sandalwood Dr. - 5th St.</p> <table border="1"> <tr> <td>568 ↓</td> <td>696 ↓</td> <td>36 ↓</td> <td>37 ↑</td> <td>414 ↑</td> <td>469 ↑</td> </tr> <tr> <td>306 ↓</td> <td>285 →</td> <td>33 ↓</td> <td>70 ↓</td> <td>955 ↑</td> <td>559 ↓</td> </tr> </table>	568 ↓	696 ↓	36 ↓	37 ↑	414 ↑	469 ↑	306 ↓	285 →	33 ↓	70 ↓	955 ↑	559 ↓	<p><b>7</b> Roberts Rd. / Cherry Valley Bl.</p> <table border="1"> <tr> <td>3118 ↓</td> <td>12 ↓</td> <td>3664 ↓</td> <td>3728 ↑</td> <td>944 ↑</td> <td>273 ↑</td> </tr> <tr> <td>3122 ↓</td> <td>1006 →</td> <td>45 ↓</td> <td>25 ↓</td> <td>3 ↓</td> <td>158 ↓</td> </tr> </table>	3118 ↓	12 ↓	3664 ↓	3728 ↑	944 ↑	273 ↑	3122 ↓	1006 →	45 ↓	25 ↓	3 ↓	158 ↓	<p><b>8</b> I-10 EB Ramps / Cherry Valley Bl.</p> <table border="1"> <tr> <td>1446 ↓</td> <td>2 ↓</td> <td>3058 ↓</td> <td>3498 ↑</td> <td>3637 ↑</td> </tr> <tr> <td>4204 →</td> <td>624 ↓</td> <td></td> <td></td> <td></td> </tr> </table>	1446 ↓	2 ↓	3058 ↓	3498 ↑	3637 ↑	4204 →	624 ↓			
160 ↓	1 ↓	8 ↓	6 ↑	3335 ↑																																												
148 ↓	3250 →	1 ↓	2 ↓	1 ↑	1 ↑																																											
568 ↓	696 ↓	36 ↓	37 ↑	414 ↑	469 ↑																																											
306 ↓	285 →	33 ↓	70 ↓	955 ↑	559 ↓																																											
3118 ↓	12 ↓	3664 ↓	3728 ↑	944 ↑	273 ↑																																											
3122 ↓	1006 →	45 ↓	25 ↓	3 ↓	158 ↓																																											
1446 ↓	2 ↓	3058 ↓	3498 ↑	3637 ↑																																												
4204 →	624 ↓																																															
<p><b>9</b> I-10 WB Ramps / Cherry Valley Bl.</p> <table border="1"> <tr> <td></td> <td></td> <td>3036 ↑</td> <td>6461 ↑</td> </tr> <tr> <td>1530 ↓</td> <td>5732 →</td> <td>674 ↓</td> <td>5 ↓</td> <td>3665 ↓</td> </tr> </table>			3036 ↑	6461 ↑	1530 ↓	5732 →	674 ↓	5 ↓	3665 ↓	<p><b>10</b> Calimesa Bl. / Cherry Valley Bl.</p> <table border="1"> <tr> <td>2305 ↓</td> <td>403 ↓</td> <td>410 ↑</td> <td>7191 ↑</td> </tr> <tr> <td>2289 ↓</td> <td>7107 →</td> <td></td> <td></td> </tr> </table>	2305 ↓	403 ↓	410 ↑	7191 ↑	2289 ↓	7107 →			<p><b>11</b> Calimesa Bl. / I-10 WB off-ramp</p> <table border="1"> <tr> <td>1198 ↓</td> <td></td> <td></td> <td></td> </tr> <tr> <td>381 ↓</td> <td></td> <td>1203 ↑</td> <td></td> </tr> <tr> <td>5 ↓</td> <td></td> <td></td> <td></td> </tr> </table>	1198 ↓				381 ↓		1203 ↑		5 ↓				<p><b>12</b> Roberts Rd. / Singleton Rd.</p> <table border="1"> <tr> <td>100 ↓</td> <td>694 ↓</td> <td>5334 ↓</td> <td>4752 ↑</td> <td>5266 ↑</td> <td>3254 ↑</td> </tr> <tr> <td>259 ↓</td> <td>5108 →</td> <td>1241 ↓</td> <td>747 ↑</td> <td>3199 ↓</td> <td></td> </tr> </table>	100 ↓	694 ↓	5334 ↓	4752 ↑	5266 ↑	3254 ↑	259 ↓	5108 →	1241 ↓	747 ↑	3199 ↓					
		3036 ↑	6461 ↑																																													
1530 ↓	5732 →	674 ↓	5 ↓	3665 ↓																																												
2305 ↓	403 ↓	410 ↑	7191 ↑																																													
2289 ↓	7107 →																																															
1198 ↓																																																
381 ↓		1203 ↑																																														
5 ↓																																																
100 ↓	694 ↓	5334 ↓	4752 ↑	5266 ↑	3254 ↑																																											
259 ↓	5108 →	1241 ↓	747 ↑	3199 ↓																																												
<p><b>13</b> Calimesa Bl. / PA-1 Dwy. 1</p> <table border="1"> <tr> <td>886 ↓</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>870 →</td> <td></td> </tr> </table>	886 ↓						870 →		<p><b>14</b> Calimesa Bl. / PA-1 Dwy. 2</p> <table border="1"> <tr> <td>886 ↓</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>870 →</td> <td></td> </tr> </table>	886 ↓						870 →		<p><b>15</b> Calimesa Bl. / PA-1 Dwy. 3</p> <table border="1"> <tr> <td>886 ↓</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>870 →</td> <td></td> </tr> </table>	886 ↓						870 →		<p><b>16</b> Calimesa Bl. / PA-1 Dwy. 4</p> <table border="1"> <tr> <td>886 ↓</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>870 →</td> <td></td> </tr> </table>	886 ↓						870 →														
886 ↓																																																
		870 →																																														
886 ↓																																																
		870 →																																														
886 ↓																																																
		870 →																																														
886 ↓																																																
		870 →																																														
<p><b>17</b> Calimesa Bl. / PA-2 Dwy.</p> <table border="1"> <tr> <td>806 ↓</td> <td>80 ↓</td> <td>80 ↑</td> <td></td> </tr> <tr> <td></td> <td></td> <td>790 →</td> <td></td> </tr> </table>				806 ↓	80 ↓	80 ↑				790 →																																						
806 ↓	80 ↓	80 ↑																																														
		790 →																																														

## Sunday Morning Peak Hour Intersection Volumes

- Calimesa Boulevard & Cherry Valley Boulevard (#10) – LOS F AM, PM, and Sunday peak hours
- Calimesa Boulevard & I-10 Westbound Off-Ramp (#11) – LOS F AM and PM peak hours
- Roberts Road & Singleton Road (#12) – LOS F AM, PM, and Sunday peak hours

Intersection analysis worksheets for Interim Year Cumulative (2028) Without Project conditions are included in Appendix 6.1.

### **6.2.2 PROJECT SCENARIO 1 (PA1 HIGH-CUBE PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)**

Interim Year Cumulative (2028) With Project Scenario 1 weekday AM and PM peak hour volumes are shown on Exhibit 6-4. Interim Year Cumulative (2028) With Project Scenario 1 ADT volumes are shown on Exhibit 6-5. As shown on Table 6-1, the addition of Project Scenario 1 traffic is not anticipated to result in any new deficiencies from those identified under Interim Year Cumulative (2028) Without Project traffic conditions. Intersection analysis worksheets for Interim Year Cumulative (2028) With Project Scenario 1 conditions are included in Appendix 6.2.

### **6.2.3 PROJECT SCENARIO 2 (PA1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)**

Interim Year Cumulative (2028) With Project Scenario 2 weekday AM and PM peak hour volumes are shown on Exhibits 6-6. Interim Year Cumulative (2028) With Project Scenario 2 ADT volumes are shown on Exhibits 6-7. As shown on Table 6-1, the addition of Project Scenario 2 traffic is not anticipated to result in any new deficiencies from those identified under Interim Year Cumulative (2028) Without Project traffic conditions. Intersection analysis worksheets for Interim Year Cumulative (2028) With Project Scenario 2 conditions are included in Appendix 6.3.

### **6.2.5 PROJECT SCENARIO 3, SUNDAY MORNING (PA1 HIGH-CUBE PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 CHURCH)**

Sunday Morning Interim Year Cumulative (2028) With PA 2 Church volumes are shown on Exhibits 6-8. As shown on Table 6-1, the addition of Project Scenario 3 traffic is not anticipated to result in any new deficiencies from those identified under Interim Year Cumulative (2028) Without Project traffic conditions. Intersection analysis worksheets for Sunday Morning Interim Year Cumulative (2028) With PA 2 Church conditions are included in Appendix 6.4.

**EXHIBIT 6-4: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT SCENARIO 1 WEEKDAY PEAK HOUR TRAFFIC VOLUMES**

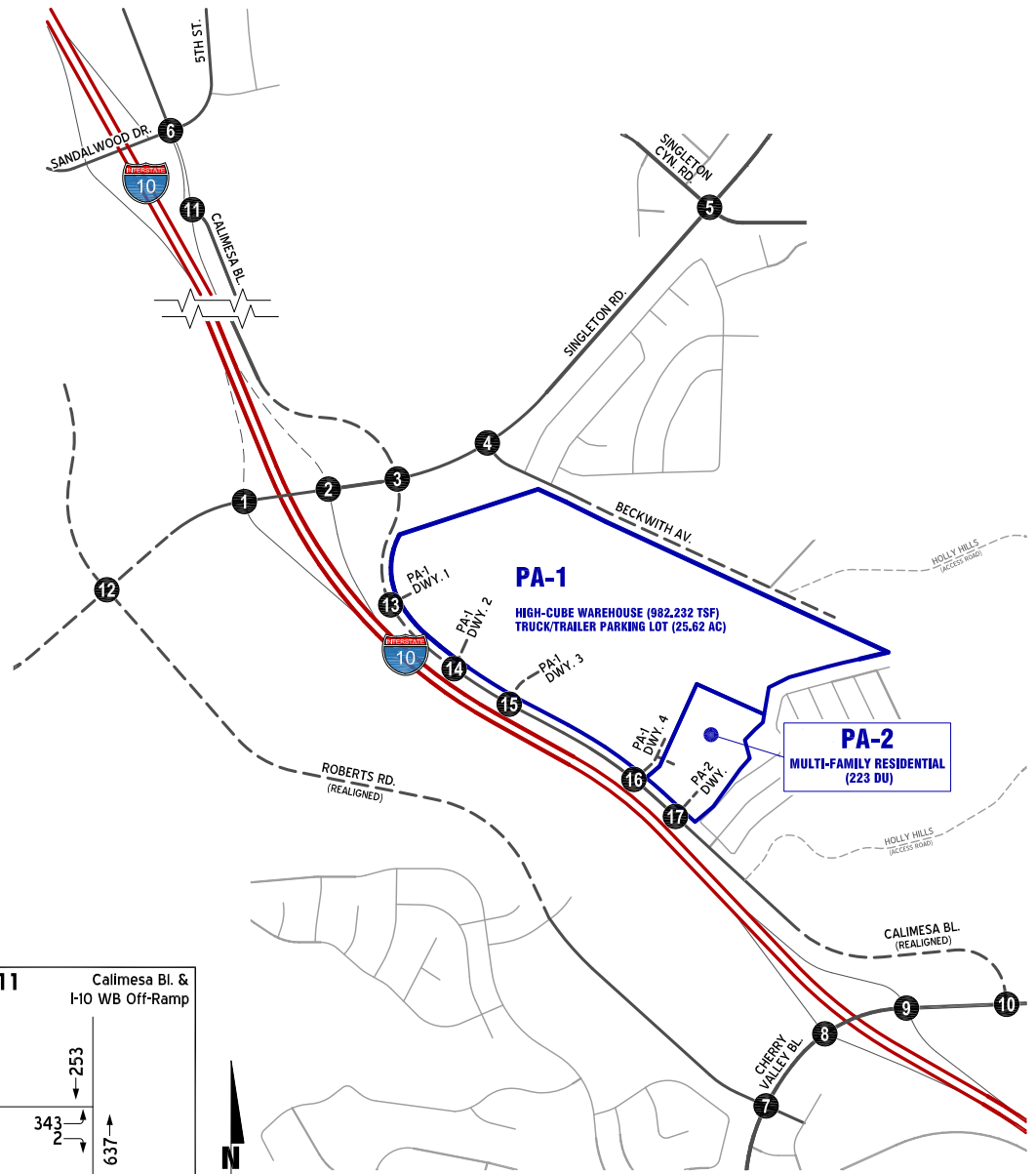
<p><b>1</b> I-10 EB Ramps / Singleton Rd.</p> <p>↓ 298(577) ↓ 199(443) ← 447(852) ↑ 463(388)</p> <p>660(867) → 334(431) →</p>	<p><b>2</b> I-10 WB Ramps / Singleton Rd.</p> <p>↑ 469(533) ↑ 676(772)</p> <p>374(529) → 485(782) →</p> <p>235(470) → 300(504) →</p>	<p><b>3</b> Calimesa Bl. / Singleton Rd.</p> <p>↓ 182(244) ↓ 31(130) ↓ 75(191) ↑ 202(94) ↑ 807(797) ↑ 38(83)</p> <p>171(158) → 462(874) → 154(254) →</p> <p>156(262) → 267(71) → 154(51) →</p>	<p><b>4</b> Beckwith Av. / Singleton Rd.</p> <p>← 805(688) ↑ 20(63)</p> <p>30(169) → 566(742) → 81(255) →</p> <p>224(151) → 52(38) →</p>				
<p><b>5</b> Singleton Cyn. Rd. / Singleton Rd.</p> <p>↓ 118(54) ↓ 1(1) ↓ 23(18) ↑ 14(15) ↑ 678(674) ↑ 1(1)</p> <p>38(105) → 575(675) → 5(1) →</p> <p>8(1) → 1(1) → 1(2) →</p>	<p><b>6</b> Calimesa Bl. / Sandalwood Dr. - 5th St.</p> <p>↓ 452(502) ↓ 172(364) ↓ 25(34) ↑ 21(29) ↑ 450(327) ↑ 35(95)</p> <p>248(190) → 289(178) → 109(132) →</p> <p>1009(1036) → 530(414) → 213(217) →</p>	<p><b>7</b> Roberts Rd. / Cherry Valley Bl.</p> <p>↓ 283(317) ↓ 23(12) ↓ 534(326) ↑ 375(435) ↑ 437(675) ↑ 135(274)</p> <p>340(259) → 493(599) → 23(26) →</p> <p>12(26) → 25(9) → 128(148) →</p>	<p><b>8</b> I-10 EB Ramps / Cherry Valley Bl.</p> <p>↓ 446(797) ↓ 357(546) ↑ 500(587) ↑ 362(405)</p> <p>953(856) → 203(218) →</p>				
<p><b>9</b> I-10 WB Ramps / Cherry Valley Bl.</p> <p>↑ 613(509) ↑ 672(752)</p> <p>686(496) → 624(907) →</p> <p>189(240) → 11(9) → 424(473) →</p>	<p><b>10</b> Calimesa Bl. / Cherry Valley Bl.</p> <p>↓ 292(327) ↓ 72(129) ↑ 160(83) ↑ 994(934)</p> <p>426(375) → 623(1006) →</p>	<p><b>11</b> Calimesa Bl. / I-10 WB off-ramp</p> <p>↓ 253(550) ↑ 66(83)</p> <p>343(399) → 64(41) → 2(1) →</p> <p>1343(1185) →</p>	<p><b>12</b> Roberts Rd. / Singleton Rd.</p> <p>↓ 9(4) ↓ 61(54) ↓ 483(436) ↑ 211(530) ↑ 291(518) ↑ 166(300)</p> <p>17(18) → 391(461) → 88(98) →</p> <p>41(129) → 41(72) → 106(310) →</p>				
<p><b>13</b> Calimesa Bl. / PA-1 Dwy. 1</p> <p>↓ 187(417) ↓ 15(7) ↑ 4(18) ↑ 2(10)</p> <p>568(310) → 8(4) →</p>	<p><b>14</b> Calimesa Bl. / PA-1 Dwy. 2</p> <p>↓ 153(409) ↓ 36(18) ↑ 11(46) ↑ 2(10)</p> <p>565(267) → 8(4) →</p>	<p><b>15</b> Calimesa Bl. / PA-1 Dwy. 3</p> <p>↓ 105(321) ↓ 51(98) ↑ 60(77) ↑ 26(35)</p> <p>512(194) → 24(42) →</p>	<p><b>16</b> Calimesa Bl. / PA-1 Dwy. 4</p> <p>↓ 102(324) ↓ 29(32) ↑ 27(41) ↑ 18(27)</p> <p>509(195) → 19(21) →</p>				
<p><b>17</b> Calimesa Bl. / PA-2 Dwy.</p> <p>↓ 113(322) ↓ 8(29) ↑ 22(20) ↑ 13(8)</p> <p>506(197) → 4(14) →</p>							

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



**EXHIBIT 6-5: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT SCENARIO 1  
AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>
<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>



**LEGEND:**

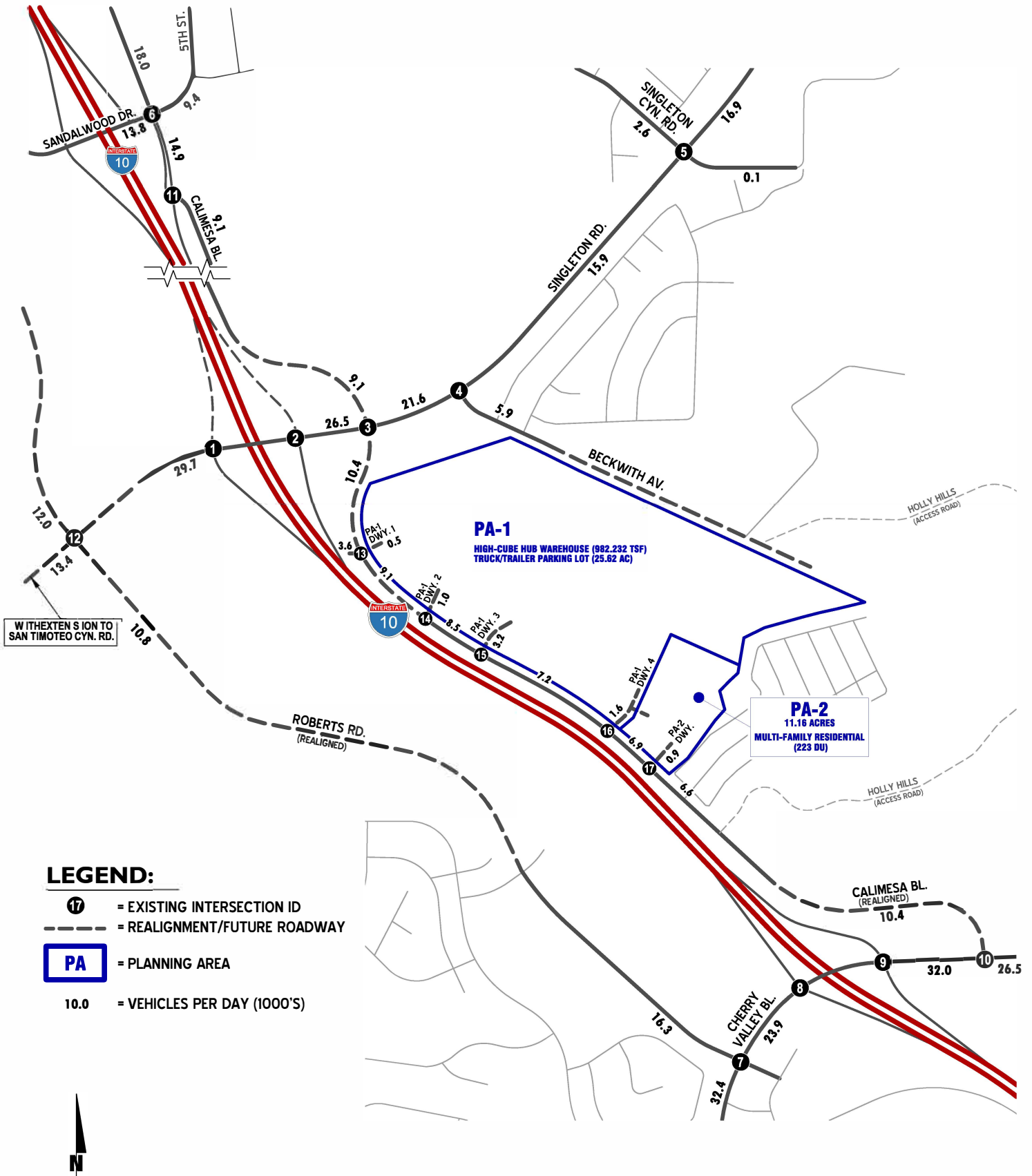
- INTERSECTION ID
- REALIGNMENT/FUTURE ROADWAY
- PLANNING AREA

**EXHIBIT 6-6: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT SCENARIO 2 WEEKDAY PEAK HOUR TRAFFIC VOLUMES**

<b>1</b>	<b>I-10 EB Ramps / Singleton Rd.</b>	<b>2</b>	<b>I-10 WB Ramps / Singleton Rd.</b>	<b>3</b>	<b>Calimesa Bl. / Singleton Rd.</b>	<b>4</b>	<b>Beckwith Av. / Singleton Rd.</b>
298(577) ↓ 674(887) → 334(431) ↓	353(658) ↓ 531(400) ← 465(856) ↑	374(529) ↓ 654(1017) → 235(470) ↓ 667(569) ← 762(788) ↑ 235(470) ↓ 353(578) ↑	182(244) ↓ 171(158) ↓ 462(874) → 375(563) ↓	45(150) ↓ 75(191) ↓ 441(313) 285(74) 172(54)	202(94) ← 807(797) ↑ 52(103) ↑ 441(313) 285(74) 172(54)	819(708) ← 20(63) ↑ 30(169) ↓ 584(745) → 81(255) ↓ 224(151) ↓ 52(38) ↑	
<b>5</b>	<b>Singleton Cyn. Rd. / Singleton Rd.</b>	<b>6</b>	<b>Calimesa Bl. / Sandalwood Dr. - 5th St.</b>	<b>7</b>	<b>Roberts Rd. / Cherry Valley Bl.</b>	<b>8</b>	<b>I-10 EB Ramps / Cherry Valley Bl.</b>
118(54) ↓ 38(105) ↓ 593(678) → 5(1) ↓	1(1) ↓ 23(18) ↓ 1(1) ↑ 14(15) ← 692(694) ↑ 1(1) ↑ 8(1) 1(1) 1(2)	452(502) ↓ 248(190) ↓ 289(178) → 109(132) ↓	186(384) ↓ 25(34) ↓ 21(29) ← 450(327) ↑ 35(95) ↑ 1009(1036) 548(417) 213(217)	283(317) ↓ 340(259) ↓ 507(619) → 23(26) ↓	23(12) ↓ 534(326) ↓ 375(435) ← 456(678) ↑ 135(274) ↑ 12(26) 25(9) 128(148)	446(797) ↓ 967(876) → 203(218) ↓	357(546) ↓ 518(590) ← 464(423) ↑
<b>9</b>	<b>I-10 WB Ramps / Cherry Valley Bl.</b>	<b>10</b>	<b>Calimesa Bl. / Cherry Valley Bl.</b>	<b>11</b>	<b>Calimesa Bl. / I-10 WB off-ramp</b>	<b>12</b>	<b>Roberts Rd. / Singleton Rd.</b>
686(496) ↓ 638(927) → 189(240) ↓ 11(9) ↓ 503(584) ↑	613(509) ← 792(774) ↑ 189(240) ↓ 11(9) ↓ 503(584) ↑	412(349) ↓ 519(506) ↓ 623(1006) →	90(132) ↓ 174(103) ← 994(934) ↑ 26(14) ↑ 745(322) 26(29) ↑	267(570) ↓ 343(399) ↓ 64(41) → 2(1) ↓	66(83) ↑ 1361(1188) ↑	9(4) ↓ 17(18) ↓ 405(481) → 88(98) ↓	61(54) ↓ 483(436) ↓ 211(530) ← 310(521) ↑ 166(300) ↑ 41(129) 41(72) 106(310) ↑
<b>13</b>	<b>Calimesa Bl. / PA-1 Dwy. 1</b>	<b>14</b>	<b>Calimesa Bl. / PA-1 Dwy. 2</b>	<b>15</b>	<b>Calimesa Bl. / PA-1 Dwy. 3</b>	<b>16</b>	<b>Calimesa Bl. / PA-1 Dwy. 4</b>
402(716) ← 50(57) ↓ 26(14) ↑ 845(359) 26(29) ↑	50(27) ↑ 26(14) ↑ 845(359) 26(29) ↑	303(589) ← 125(141) ↓ 26(14) ↑ 745(322) 26(29) ↑	125(67) ↑ 26(14) ↑ 745(322) 26(29) ↑	206(404) ← 123(198) ↓ 72(44) ↑ 618(257) 59(92) ↑	153(94) ↑ 72(44) ↑ 618(257) 59(92) ↑	196(340) ← 83(107) ↓ 96(53) ↑ 64(35) ↑ 581(296) 55(71) ↑	96(53) ↑ 64(35) ↑ 581(296) 55(71) ↑
<b>17</b>	<b>Calimesa Bl. / PA-2 Dwy.</b>						
252(347) ← 8(29) ↓ 13(8) ↑ 614(348) 4(14) ↑	22(20) ↑ 13(8) ↑ 614(348) 4(14) ↑						

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

**EXHIBIT 6-5: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT SCENARIO 1  
AVERAGE DAILY TRAFFIC VOLUMES**



**EXHIBIT 6-8: SUNDAY MORNING INTERIM YEAR CUMULATIVE (2028) WITH PROJECT SCENARIO 3 (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 CHURCH) TRAFFIC VOLUMES**

<b>1</b>	<b>I-10 EB Ramps / Singleton Rd.</b>	<b>2</b>	<b>I-10 WB Ramps / Singleton Rd.</b>	<b>3</b>	<b>Calimesa Bl. / Singleton Rd.</b>	<b>4</b>	<b>Beckwith Av. / Singleton Rd.</b>																																																									
	<table border="1"> <tr><td>← 314</td><td>← 228</td><td>← 608</td></tr> <tr><td>→ 560</td><td>→ 238</td><td>→ 308</td></tr> </table>	← 314	← 228	← 608	→ 560	→ 238	→ 308		<table border="1"> <tr><td>↑ 198</td><td>↑ 618</td></tr> <tr><td>→ 260</td><td>→ 527</td></tr> <tr><td>→ 299</td><td>→ 269</td></tr> </table>	↑ 198	↑ 618	→ 260	→ 527	→ 299	→ 269		<table border="1"> <tr><td>← 106</td><td>← 104</td><td>← 118</td></tr> <tr><td>→ 116</td><td>→ 514</td><td>→ 165</td></tr> <tr><td>→ 150</td><td>→ 83</td><td>→ 71</td></tr> <tr><td>↑ 122</td><td>↑ 560</td><td>↑ 66</td></tr> </table>	← 106	← 104	← 118	→ 116	→ 514	→ 165	→ 150	→ 83	→ 71	↑ 122	↑ 560	↑ 66		<table border="1"> <tr><td>← 547</td><td>← 46</td></tr> <tr><td>→ 34</td><td>→ 478</td><td>→ 195</td></tr> <tr><td>→ 186</td><td>→ 44</td></tr> </table>	← 547	← 46	→ 34	→ 478	→ 195	→ 186	→ 44																										
← 314	← 228	← 608																																																														
→ 560	→ 238	→ 308																																																														
↑ 198	↑ 618																																																															
→ 260	→ 527																																																															
→ 299	→ 269																																																															
← 106	← 104	← 118																																																														
→ 116	→ 514	→ 165																																																														
→ 150	→ 83	→ 71																																																														
↑ 122	↑ 560	↑ 66																																																														
← 547	← 46																																																															
→ 34	→ 478	→ 195																																																														
→ 186	→ 44																																																															
<b>5</b>	<b>Singleton Cyn. Rd. / Singleton Rd.</b>	<b>6</b>	<b>Calimesa Bl. / Sandalwood Dr. - 5th St.</b>	<b>7</b>	<b>Roberts Rd. / Cherry Valley Bl.</b>	<b>8</b>	<b>I-10 EB Ramps / Cherry Valley Bl.</b>																																																									
	<table border="1"> <tr><td>← 61</td><td>← 1</td><td>← 8</td><td>↑ 6</td><td>↑ 540</td></tr> <tr><td>→ 48</td><td>→ 437</td><td>→ 1</td><td>→ 2</td><td>→ 1</td></tr> <tr><td>→ 1</td><td></td><td></td><td></td><td></td></tr> </table>	← 61	← 1	← 8	↑ 6	↑ 540	→ 48	→ 437	→ 1	→ 2	→ 1	→ 1						<table border="1"> <tr><td>← 348</td><td>← 179</td><td>← 36</td><td>↑ 37</td><td>↑ 194</td></tr> <tr><td>→ 83</td><td>→ 62</td><td>→ 33</td><td>→ 70</td><td>→ 432</td><td>→ 175</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	← 348	← 179	← 36	↑ 37	↑ 194	→ 83	→ 62	→ 33	→ 70	→ 432	→ 175								<table border="1"> <tr><td>← 209</td><td>← 12</td><td>← 399</td><td>↑ 347</td><td>↑ 500</td></tr> <tr><td>→ 295</td><td>→ 500</td><td>→ 45</td><td>→ 25</td><td>→ 3</td><td>→ 158</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	← 209	← 12	← 399	↑ 347	↑ 500	→ 295	→ 500	→ 45	→ 25	→ 3	→ 158								<table border="1"> <tr><td>← 542</td><td>← 2</td><td>← 442</td><td>↑ 576</td></tr> <tr><td>→ 853</td><td>→ 203</td><td></td><td>→ 295</td></tr> </table>	← 542	← 2	← 442	↑ 576	→ 853	→ 203		→ 295
← 61	← 1	← 8	↑ 6	↑ 540																																																												
→ 48	→ 437	→ 1	→ 2	→ 1																																																												
→ 1																																																																
← 348	← 179	← 36	↑ 37	↑ 194																																																												
→ 83	→ 62	→ 33	→ 70	→ 432	→ 175																																																											
← 209	← 12	← 399	↑ 347	↑ 500																																																												
→ 295	→ 500	→ 45	→ 25	→ 3	→ 158																																																											
← 542	← 2	← 442	↑ 576																																																													
→ 853	→ 203		→ 295																																																													
<b>9</b>	<b>I-10 WB Ramps / Cherry Valley Bl.</b>	<b>10</b>	<b>Calimesa Bl. / Cherry Valley Bl.</b>	<b>11</b>	<b>Calimesa Bl. / I-10 WB off-ramp</b>	<b>12</b>	<b>Roberts Rd. / Singleton Rd.</b>																																																									
	<table border="1"> <tr><td>↑ 365</td><td>↑ 680</td></tr> <tr><td>→ 618</td><td>→ 677</td></tr> <tr><td>→ 191</td><td>→ 5</td><td>→ 381</td></tr> </table>	↑ 365	↑ 680	→ 618	→ 677	→ 191	→ 5	→ 381		<table border="1"> <tr><td>← 356</td><td>← 106</td><td>↑ 116</td><td>↑ 689</td></tr> <tr><td>→ 359</td><td>→ 700</td><td></td><td></td></tr> </table>	← 356	← 106	↑ 116	↑ 689	→ 359	→ 700				<table border="1"> <tr><td>← 301</td></tr> <tr><td>→ 381</td><td>→ 5</td><td>→ 295</td></tr> </table>	← 301	→ 381	→ 5	→ 295		<table border="1"> <tr><td>← 2</td><td>← 45</td><td>← 396</td><td>↑ 444</td><td>↑ 371</td></tr> <tr><td>→ 4</td><td>→ 324</td><td>→ 58</td><td>→ 64</td><td>→ 49</td><td>→ 74</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	← 2	← 45	← 396	↑ 444	↑ 371	→ 4	→ 324	→ 58	→ 64	→ 49	→ 74																											
↑ 365	↑ 680																																																															
→ 618	→ 677																																																															
→ 191	→ 5	→ 381																																																														
← 356	← 106	↑ 116	↑ 689																																																													
→ 359	→ 700																																																															
← 301																																																																
→ 381	→ 5	→ 295																																																														
← 2	← 45	← 396	↑ 444	↑ 371																																																												
→ 4	→ 324	→ 58	→ 64	→ 49	→ 74																																																											
<b>13</b>	<b>Calimesa Bl. / PA-1 Dwy. 1</b>	<b>14</b>	<b>Calimesa Bl. / PA-1 Dwy. 2</b>	<b>15</b>	<b>Calimesa Bl. / PA-1 Dwy. 3</b>	<b>16</b>	<b>Calimesa Bl. / PA-1 Dwy. 4</b>																																																									
	<table border="1"> <tr><td>← 317</td><td>← 4</td><td>↑ 1</td></tr> <tr><td>→ 300</td><td>→ 2</td></tr> </table>	← 317	← 4	↑ 1	→ 300	→ 2		<table border="1"> <tr><td>← 306</td><td>← 11</td><td>↑ 3</td></tr> <tr><td>→ 298</td><td>→ 2</td></tr> </table>	← 306	← 11	↑ 3	→ 298	→ 2		<table border="1"> <tr><td>← 292</td><td>← 15</td><td>↑ 17</td></tr> <tr><td>→ 282</td><td>→ 7</td></tr> </table>	← 292	← 15	↑ 17	→ 282	→ 7		<table border="1"> <tr><td>← 233</td><td>← 67</td><td>↑ 64</td></tr> <tr><td>→ 225</td><td>→ 94</td></tr> </table>	← 233	← 67	↑ 64	→ 225	→ 94																																					
← 317	← 4	↑ 1																																																														
→ 300	→ 2																																																															
← 306	← 11	↑ 3																																																														
→ 298	→ 2																																																															
← 292	← 15	↑ 17																																																														
→ 282	→ 7																																																															
← 233	← 67	↑ 64																																																														
→ 225	→ 94																																																															
<b>17</b>	<b>Calimesa Bl. / PA-2 Dwy.</b>																																																															
	<table border="1"> <tr><td>← 238</td><td>← 91</td><td>↑ 95</td></tr> <tr><td>→ 225</td><td>→ 60</td></tr> </table>	← 238	← 91	↑ 95	→ 225	→ 60																																																										
← 238	← 91	↑ 95																																																														
→ 225	→ 60																																																															

## Sunday Morning Peak Hour Intersection Volumes

### 6.3 INTERIM YEAR CUMULATIVE (2028) TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for Interim Year Cumulative (2028) traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. The following study area intersection is anticipated to meet traffic signal warrants for Interim Year Cumulative (2028) Without Project traffic conditions (see Appendix 6.6 and Table 1-4):

- Beckwith Avenue at Singleton Road (#4)
- Roberts Road at Singleton Road (#12)

It should be noted that the intersections of Calimesa Boulevard at PA-1 Driveway 1 (#13) and Calimesa Boulevard at PA-1 Driveway 3 (#15) are anticipated to satisfy signal warrants under Horizon Year (2045) With Project Scenario 2 conditions.

### 6.4 INTERIM YEAR CUMULATIVE (2028) DEFICIENCIES AND IMPROVEMENTS

This section provides a summary of deficiencies, based on the City of Calimesa's deficiency criteria discussed in Section 2.6 *Deficiency Criteria*, and improvements needed to improve operations back to acceptable levels.

The improvements needed to provide acceptable levels of service at each of the study area intersections under Interim Year Cumulative (2028) traffic conditions are shown on Table 6-2. The effectiveness of the recommended improvement strategies to address Opening Year Cumulative (2025) traffic deficiencies are presented in Table 6-3. Appendices 6.6, 6.7, 6.8, and 6.9 contain HCM calculation worksheets for the Interim Year Cumulative (2028) With Improvements for Without Project, With Project Scenario 1, With Project Scenario 2, and With Project Scenario 3 conditions, respectively.

Per request of the City of Calimesa, improvements for the Singleton Road / I-10 Freeway interchange for Interim Year Cumulative (2028) conditions have been conducted with the proposed lane geometrics consistent with the Intersection Control Evaluation (ICE) Report. (7) The roundabout and diverging diamond interchange control options are not feasible, nor recommended per the ICE report and have not been utilized in the operations analysis. The ICE proposed lane geometrics, shown on Exhibit 6-6, were not sufficient to improve operations for the Singleton Road / I-10 Freeway interchange back to acceptable levels, therefore alternative improvements to achieve acceptable LOS has also been included.



EXHIBIT 6-6: SINGLETON ROAD INTERCHANGE ICE LANE GEOMETRY



FIGURE 3  
SINGLETON RD AT I-10  
SIGNALIZED INTERCHANGE

**TABLE 6-2: INTERSECTION APPROACH LANES FOR INTERIM YEAR CUMULATIVE (2028) CONDITIONS WITH IMPROVEMENTS**

#	Intersection	Traffic Control <sup>1</sup>	Intersection Approach Lanes													
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R		
1	I-10 EB Ramps / Singleton Rd.															
	- No Improvements	CSS	0	0	0	0	0	0	0	1	0	0	1	0		
	- ICE Control Option	<b>IS</b>	0	0	0	<b>0.5</b>	<b>0.5</b>	<b>1</b>	0	<b>0.5</b>	<b>0.5</b>	<b>1</b>	1	0		
	- Without Project	<b>IS</b>	0	0	0	0	<b>1!</b>	<b>1</b>	0	<b>2</b>	<b>1</b>	<b>1</b>	1	0		
	- Project Scenario 1	<b>IS</b>	0	0	0	0	<b>1!</b>	<b>1</b>	0	<b>2</b>	<b>1</b>	<b>1</b>	1	0		
	- Project Scenario 2	<b>IS</b>	0	0	0	<b>1</b>	<b>1!</b>	<b>1</b>	0	<b>2</b>	<b>1</b>	<b>1</b>	1	0		
- Project Scenario 3	<b>IS</b>	0	0	0	0	<b>1!</b>	<b>1</b>	0	<b>2</b>	<b>1</b>	<b>1</b>	1	0			
2	I-10 WB Ramps / Singleton Rd.															
	- No Improvements	CSS	0	1!	0	0	0	0	0	1	0	0	1	0		
	- ICE Control Option	<b>IS</b>	0	1!	0	0	0	0	<b>1</b>	1	0	0	1	0		
	- Without Project	<b>IS</b>	<b>1</b>	1	0	0	0	0	<b>2</b>	1	0	0	1	<b>1</b>		
	- Project Scenario 1	<b>IS</b>	<b>1</b>	1	0	0	0	0	<b>2</b>	1	0	0	1	<b>1</b>		
	- Project Scenario 2	<b>IS</b>	<b>1</b>	0.5	<b>1.5</b>	0	0	0	<b>2</b>	1	0	0	1	<b>1</b>		
- Project Scenario 3	<b>IS</b>	<b>1</b>	1	0	0	0	0	<b>2</b>	1	0	0	1	<b>1</b>			
3	Calimesa Bl. / Singleton Rd.															
	- No Improvements	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0		
	- Without Project	<b>IS</b>	<b>1</b>	<b>0.5</b>	<b>0.5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	0		
	- Project Scenario 1	<b>IS</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	0		
	- Project Scenario 2	<b>IS</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	0		
- Project Scenario 3	<b>IS</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	0			
4	Beckwith Av. / Singleton Rd.															
	- No Improvements	CSS	0	1!	0	0	0	0	0	1	0	1	1	0		
	- Without Project	<b>IS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	1	<b>1</b>	1	1	0		
	- Project Scenario 1	<b>IS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	1	<b>1</b>	1	1	0		
	- Project Scenario 2	<b>IS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	1	<b>1</b>	1	1	0		
- Project Scenario 3	<b>IS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	1	<b>1</b>	1	1	0			
6	Calimesa Bl. / Sandalwood Dr. - 5th St.															
	- No Improvements	TS	1	2	d	1	1	1>	1.5	1	1.5	1	1			
	- Without Project	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0		
	- Project Scenario 1	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0		
	- Project Scenario 2	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0		
- Project Scenario 3	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0			
7	Roberts Rd. / Cherry Valley Bl.															
	- No Improvements	TS	1	1	1	0	1!	0	1	2	1	1	2	1		
	- Without Project	TS	1	1	1	<b>2</b>	1	0	<b>2</b>	2	1	1	2	<b>1&gt;</b>		
	- Project Scenario 1	TS	1	1	1	<b>2</b>	1	0	<b>2</b>	2	1	1	2	<b>1&gt;</b>		
	- Project Scenario 2	TS	1	1	1	<b>2</b>	1	0	<b>2</b>	2	1	1	2	<b>1&gt;</b>		
- Project Scenario 3	TS	1	1	1	<b>2</b>	1	0	<b>2</b>	2	1	1	2	<b>1&gt;</b>			

8	I-10 EB Ramps / Cherry Valley Bl.													
	- No Improvements	AWS	0	0	0	0	1!	0	0	1	0	0.5	0.5	0
	- Without Project	<b>TS</b>	0	0	0	0.5	0.5	<u>2</u>	0	<u>2</u>	0	<u>1</u>	<u>2</u>	0
	- Project Scenario 1	<b>TS</b>	0	0	0	0.5	0.5	<u>2</u>	0	<u>2</u>	0	<u>1</u>	<u>2</u>	0
	- Project Scenario 2	<b>TS</b>	0	0	0	0.5	0.5	<u>2</u>	0	<u>2</u>	0	<u>1</u>	<u>2</u>	0
	- Project Scenario 3	<b>TS</b>	0	0	0	<u>1</u>	0.5	<u>1.5</u>	0	<u>2</u>	0	<u>1</u>	<u>2</u>	0
9	I-10 WB Ramps / Cherry Valley Bl.													
	- No Improvements	AWS	0	1!	0	0	0	0	0.5	0.5	0	0	1	0
	- Without Project	<b>TS</b>	0.5	0.5	<u>1</u>	0	0	0	<u>2</u>	1	0	0	<u>2</u>	0
	- Project Scenario 1	<b>TS</b>	0.5	0.5	<u>1</u>	0	0	0	<u>2</u>	1	0	0	<u>2</u>	0
	- Project Scenario 2	<b>TS</b>	0.5	0.5	<u>1</u>	0	0	0	<u>2</u>	1	0	0	<u>2</u>	<b>1</b>
	- Project Scenario 3	<b>TS</b>	<u>1</u>	<u>1</u>	0	0	0	0	<u>2</u>	1	0	0	<u>2</u>	0
10	Calimesa Bl. / Cherry Valley Bl.													
	- No Improvements	CSS	0	0	0	0.5	0	0.5	0.5	0.5	0	0	1	0
	- Without Project	<b>TS</b>	0	0	0	1	0	<u>1</u>	<u>1</u>	1	0	0	<u>2</u>	0
	- Project Scenario 1	<b>TS</b>	0	0	0	1	0	<b>1&gt;</b>	<u>1</u>	1	0	0	<u>2</u>	0
	- Project Scenario 2	<b>TS</b>	0	0	0	1	0	<b>1&gt;</b>	<u>1</u>	1	0	0	<u>2</u>	0
	- Project Scenario 3	<b>TS</b>	0	0	0	1	0	<b>1&gt;</b>	<u>1</u>	1	0	0	<u>2</u>	0
11	Calimesa Bl. / I-10 WB off-ramp													
	- No Improvements	AWS	0	1	0	0	1	0	0.5	0	0.5	0	0	0
	- Without Project	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
	- Project Scenario 1	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
	- Project Scenario 2	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
	- Project Scenario 3	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
12	Roberts Rd. / Singleton Rd.													
	- No Improvements	CSS	0	1	0	0.5	0.5	0	0	0	0	0	1!	0
	- Without Project	<b>TS</b>	<u>1</u>	<u>2</u>	<b>1&gt;</b>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>
	- Project Scenario 1	<b>TS</b>	<u>1</u>	<u>2</u>	<b>1&gt;</b>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>
	- Project Scenario 2	<b>TS</b>	<u>1</u>	<u>2</u>	<b>1&gt;</b>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>
	- Project Scenario 3	<b>TS</b>	<u>1</u>	<u>2</u>	<b>1&gt;</b>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>

<sup>1</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop; TS = Traffic Signal; **TS** = Improvement

L = Left; T = Through; R = Right; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right Turn Overlap Phasing;

1 = Cumulative Improvement; **1** = Project Improvement



**TABLE 6-3: INTERSECTION ANALYSIS FOR INTERIM YEAR CUMULATIVE (2028) CONDITIONS WITH IMPROVEMENTS**

# Intersection	Traffic Control <sup>1</sup>	2028 Without Project						2028 With Project (Scenario 1)				2028 With Project (Scenario 2)				2028 With Project (Scenario 3)	
		Delay <sup>2</sup> (secs.)			Level of Service			Delay <sup>2</sup> (secs.)		Level of Service		Delay <sup>2</sup> (secs.)		Level of Service		Delay <sup>2</sup> (secs.)	Level of Service
		AM	PM	Sun	AM	PM	Sun	AM	PM	AM	PM	AM	PM	AM	PM	AM	AM
1 I-10 EB Ramps / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- ICE Control Option	TS	>100.0	>100.0	69.7	F	F	E	>100.0	>100.0	F	F	>100.0	>100.0	F	F	72.5	E
- With Improvements	TS	34.2	40.5	27.7	C	D	C	34.5	49.3	C	D	33.8	36.5	C	D	27.5	C
2 I-10 WB Ramps / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- ICE Control Option	TS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	19.6	48.3	28.3	B	D	C	23.7	54.7	C	D	19.3	37.9	B	D	28.0	C
3 Calimesa Bl. / Singleton Rd.																	
- Without Improvements	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	41.7	31.9	20.2	D	C	C	29.6	41.0	C	D	46.0	31.6	D	C	21.8	C
4 Beckwith Av. / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	13.8	10.7	13.4	B	B	B	13.8	20.6	B	C	21.3	10.7	C	B	13.0	B
6 Calimesa Bl. / Sandalwood Dr. - 5th St.																	
- Without Improvements	TS	>100.0	>100.0	34.0	F	F	C	>100.0	>100.0	F	F	>100.0	>100.0	F	F	34.4	C
- With Improvements	TS	53.5	51.7	31.6	D	D	C	53.6	52.1	D	D	53.9	52.8	D	D	31.7	C
7 Roberts Rd. / Cherry Valley Bl.																	
- Without Improvements	TS	<b>166.5</b>	<b>85.1</b>	<b>96.4</b>	F	F	F	>200.0	<b>95.9</b>	F	F	>200.0	<b>95.4</b>	F	F	<b>115.7</b>	F
- With Improvements	TS	40.8	50.5	42.0	D	D	D	41.0	50.5	D	D	41.0	50.5	D	D	42.2	D
8 I-10 EB Ramps / Cherry Valley Bl.																	
- Without Improvements	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	37.5	44.0	32.9	D	D	C	40.1	50.2	D	D	50.6	54.1	D	D	36.4	D
9 I-10 WB Ramps / Cherry Valley Bl.																	
- Without Improvements	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	46.5	41.4	23.8	D	D	C	47.8	50.0	D	D	49.5	54.0	D	D	30.8	C
10 Calimesa Bl. / Cherry Valley Bl.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	40.1	28.0	22.6	D	C	C	31.6	22.6	C	C	40.3	25.8	D	C	20.3	C
11 Calimesa Bl. / I-10 WB off-ramp																	
- Without Improvements	AWS	>100.0	>100.0	16.8	F	F	C	>100.0	>100.0	F	F	>100.0	>100.0	F	F	18.4	C
- With Improvements	TS	13.4	13.7	14.5	B	B	B	13.5	13.8	B	B	13.8	14.0	B	B	14.6	B
12 Roberts Rd. / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	45.1	41.9	30.4	D	D	C	47.0	45.4	D	D	47.9	46.4	D	D	30.6	C

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

<sup>1</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop; TS = Traffic Signal; **TS** = Improvement

<sup>2</sup> 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.

This page intentionally left blank

## 7 HORIZON YEAR (2045) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Horizon Year (2045) conditions and the resulting intersection operations, traffic signal warrant, and queuing analyses.

### 7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2045) 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 Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).

### 7.2 HORIZON YEAR (2045) INTERSECTION OPERATIONS ANALYSIS

Horizon Year (2045) 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. LOS calculations were conducted for the study intersections to evaluate their operations under Horizon Year (2045) Without Project conditions with roadway and intersection geometrics consistent with Section 7.1 *Roadway Improvements*. The intersection analysis results are summarized on Table 7-1 for Horizon Year (2045) traffic conditions. Intersection operations analysis worksheets are provided in an appendix for each scenario, as indicated below.

#### 7.2.1 WITHOUT PROJECT

Horizon Year (2045) Without Project weekday AM and PM peak hour volumes are shown on Exhibit 7-1. Horizon Year (2045) Without Project ADT volumes are shown on Exhibit 7-2. Horizon Year (2045) Without Project Sunday peak hour volumes are shown on Exhibit 7-3. Table 7-1 summarizes the intersection operations analysis for Horizon Year (2045) Without Project conditions. As shown on Table 7-1, the following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year Cumulative (2045) Without Project traffic conditions:

- I-10 Eastbound Ramps & Singleton Road (#1) – LOS F AM, PM, and Sunday peak hours
- I-10 Westbound Ramps & Singleton Road (#2) – LOS F AM, PM, and Sunday peak hours
- Calimesa Boulevard & Singleton Road (#3) – LOS F AM, PM, and Sunday peak hours
- Beckwith Avenue & Singleton Road (#4) – LOS F AM, PM, and Sunday peak hours
- Singleton Canyon Road & Singleton Road (#5) – LOS F AM and PM peak hours
- Calimesa Boulevard & Sandalwood Drive (#6) – LOS F AM and PM peak hours
- Roberts Road & Cherry Valley Boulevard (#7) – LOS F AM, PM, and Sunday peak hours
- I-10 Eastbound Ramps & Cherry Valley Boulevard (#8) – LOS F AM, PM, and Sunday peak hours

**TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2045) CONDITIONS**

#	Intersection	Traffic Control <sup>2</sup>	2045 Without Project						2045 With Project (Scenario 1)				Scenario 1 Related		2045 With Project (Scenario 2)				Scenario 2 Related		2045 With Project (Scenario 3)			Scenario 3 Related
			Delay <sup>1</sup> (secs.)			Level of Service			Delay <sup>1</sup> (secs.)		Level of Service		Increase in Delay (secs.) <sup>3</sup>		Delay <sup>1</sup> (secs.)		Level of Service		Increase in Delay (secs.) <sup>3</sup>		Delay <sup>1</sup> (secs.)	Level of Service	Increase in Delay (secs.) <sup>3</sup>	
			AM	PM	Sun	AM	PM	Sun	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	Sun	Sun
1	I-10 EB Ramps / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
2	I-10 WB Ramps / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
3	Calimesa Bl. / Singleton Rd.	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
4	Beckwith Av. / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
5	Singleton Cyn. Rd. / Singleton Rd.	AWS	85.9	81.0	19.1	F	F	C	88.7	84.5	F	F	2.8	3.5	93.6	88.5	F	F	>5.0	>5.0	20.7	C	--	
6	Calimesa Bl. / Sandalwood Dr. - 5th St.	TS	55.1	57.4	53.1	E	E	D	55.1	57.4	E	E	0	0	55.3	57.8	E	E	0.2	0.4	52.8	D	--	
7	Roberts Rd. / Cherry Valley Bl.	TS	>200.0	143.8	112.0	F	F	F	>200.0	158.0	F	F	>5.0	>5.0	158.3	157.2	F	F	>5.0	>5.0	134.0	F	>5.0	
8	I-10 EB Ramps / Cherry Valley Bl.	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
9	I-10 WB Ramps / Cherry Valley Bl.	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
10	Calimesa Bl. / Cherry Valley Bl.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
11	Calimesa Bl. / I-10 WB off-ramp	AWS	>100.0	>100.0	43.1	F	F	E	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	49.0	E	>5.0	
12	Roberts Rd. / Singleton Rd.	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	>100.0	F	F	>5.0	>5.0	>100.0	F	>5.0	
13	Calimesa Bl. / PA-1 Dwy. 1	CSS	Future Intersection						12.5	11.6	B	B	--	--	19.3	14.2	C	B	--	--	11.3	B	--	
14	Calimesa Bl. / PA-1 Dwy. 2	CSS	Future Intersection						11.7	10.7	B	B	--	--	19.1	13.0	C	B	--	--	10.4	B	--	
15	Calimesa Bl. / PA-1 Dwy. 3	CSS/TS	Future Intersection						13.5	12.6	B	B	--	--	7.1	5.7	A	A	--	--	10.8	B	--	
16	Calimesa Bl. / PA-1 Dwy. 4	CSS	Future Intersection						13.0	11.6	B	B	--	--	19.7	14.2	C	B	--	--	15.3	C	--	
17	Calimesa Bl. / PA-2 Dwy.	CSS	Future Intersection						13.6	11.5	B	B	--	--	16.4	13.1	C	B	--	--	17.3	C	--	

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

<sup>1</sup> 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.

<sup>2</sup> TS = Traffic Signal; CSS = Cross-Street Stop; **CSS** = Improvement

<sup>3</sup> Project-related increase in delay is only calculated for deficient intersections within the jurisdiction of the City of Calimesa. An increase in delay greater than 5.0 seconds is assumed for unsignalized delays greater than 100 seconds and signalized delays greater than 200 seconds

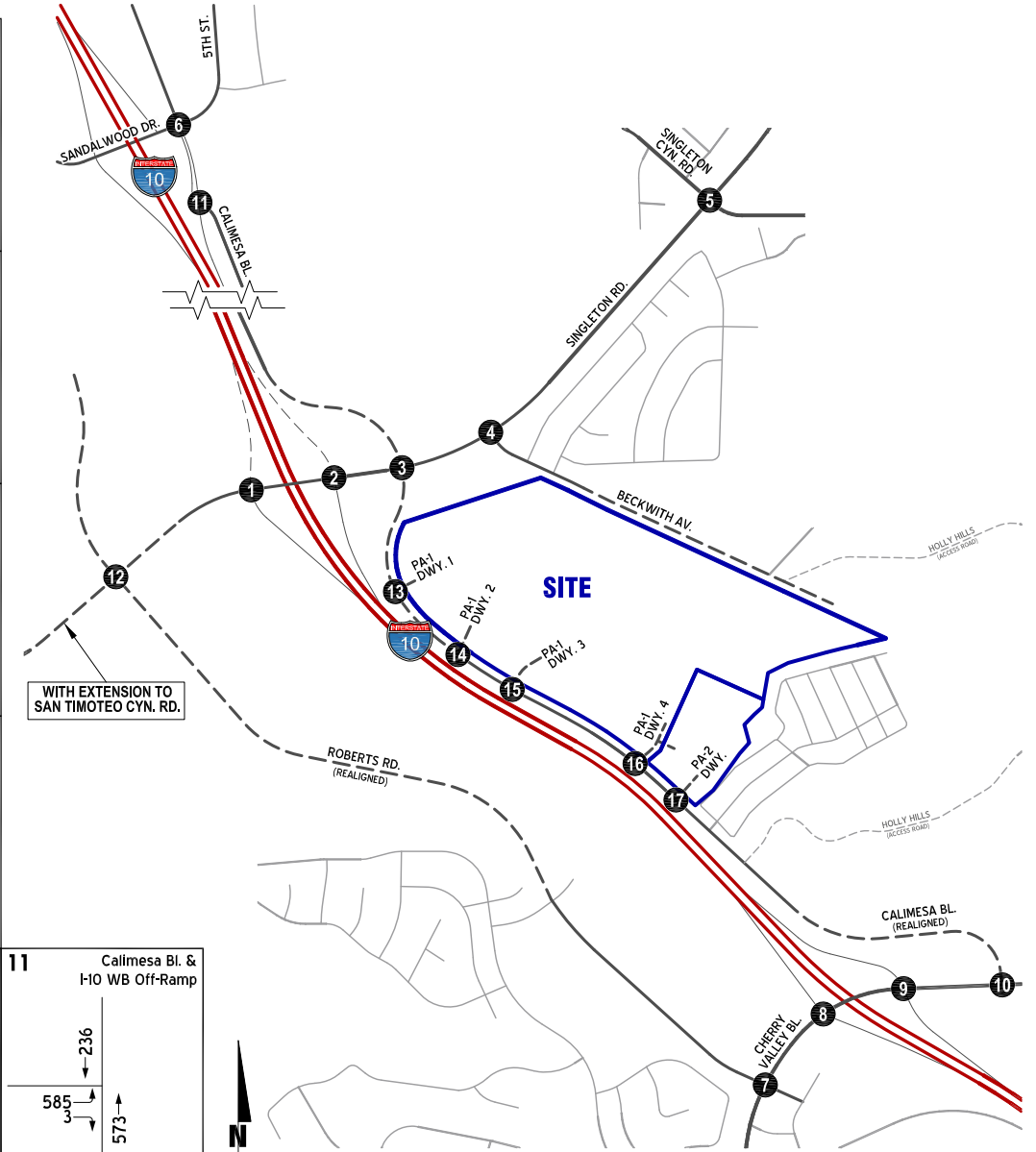
**EXHIBIT 7-1: HORIZON YEAR (2045) WITHOUT PROJECT WEEKDAY AM AND PM PEAK HOUR TRAFFIC VOLUMES**

<p><b>1</b> I-10 EB Ramps / Singleton Rd.</p> <p>350(644) ↓ 250(558) ↓ ← 581(1133) ↑ 562(447)</p> <p>672(1105) → 447(652) ↓</p>	<p><b>2</b> I-10 WB Ramps / Singleton Rd.</p> <p>↑ 611(564) ← 833(863)</p> <p>411(679) → 660(984) →</p> <p>309(717) ↑ 323(616) ↑</p>	<p><b>3</b> Calimesa Bl. / Singleton Rd.</p> <p>200(268) ↓ 24(129) ↓ 88(225) ↓</p> <p>↑ 236(112) ← 1147(1121) ↑ 34(79)</p> <p>188(174) ↓ 832(1301) → 62(195) ↓</p> <p>136(148) ↑ 284(62) ↑ 160(42) ↑</p>	<p><b>4</b> Beckwith Av. / Singleton Rd.</p> <p>← 967(881) ↑ 91(166)</p> <p>31(173) → 859(957) → 177(486) ↓</p> <p>429(290) ↓ 104(130) ↓</p>
<p><b>5</b> Singleton Cyn. Rd. / Singleton Rd.</p> <p>130(59) ↓ 5(15) ↓ 25(20) ↓</p> <p>↑ 15(17) ← 836(960) ↑ 13(34)</p> <p>42(110) → 887(921) → 34(56) ↓</p> <p>91(28) ↑ 13(5) ↑ 24(30) ↑</p>	<p><b>6</b> Calimesa Bl. / Sandalwood Dr. - 5th St.</p> <p>497(538) ↓ 164(391) ↓ 28(37) ↓</p> <p>↑ 23(32) ← 472(456) ↑ 37(100)</p> <p>265(214) → 411(271) → 120(145) ↓</p> <p>1110(1140) ↑ 533(413) ↑ 231(237) ↑</p>	<p><b>7</b> Roberts Rd. / Cherry Valley Bl.</p> <p>319(396) ↓ 25(13) ↓ 579(385) ↓</p> <p>↑ 408(499) ← 512(788) ↑ 149(301)</p> <p>422(343) → 584(698) → 25(29) ↓</p> <p>13(29) ↑ 28(10) ↑ 141(163) ↑</p>	<p><b>8</b> I-10 EB Ramps / Cherry Valley Bl.</p> <p>496(903) ↓ 440(587) ↓</p> <p>← 573(685) ↑ 457(497)</p> <p>1086(1011) → 219(236) ↓</p>
<p><b>9</b> I-10 WB Ramps / Cherry Valley Bl.</p> <p>↑ 652(610) ← 825(923)</p> <p>778(559) → 748(1039) →</p> <p>204(259) ↑ 12(10) ↑ 497(579) ↑</p>	<p><b>10</b> Calimesa Bl. / Cherry Valley Bl.</p> <p>378(350) ↓ 94(144) ↓</p> <p>↑ 174(106) ← 1099(1183)</p> <p>417(458) → 829(1160) →</p>	<p><b>11</b> Calimesa Bl. / I-10 WB off-ramp</p> <p>268(592) ↓</p> <p>↑ 73(91)</p> <p>585(1019) ↓ 70(45) → 3(2) ↓</p> <p>1466(1289) ↑</p>	<p><b>12</b> Roberts Rd. / Singleton Rd.</p> <p>158(121) ↓ 245(195) ↓ 531(479) ↓</p> <p>↑ 231(582) ← 626(955) ↑ 310(598)</p> <p>76(205) → 747(773) → 118(161) ↓</p> <p>419(200) ↑ 252(299) ↑ 571(721) ↑</p>
<p><b>13</b> Calimesa Bl. / PA-1 Dwy. 1</p> <p>← 100(358)</p> <p>574(197) →</p>	<p><b>14</b> Calimesa Bl. / PA-1 Dwy. 2</p> <p>← 99(358)</p> <p>574(196) →</p>	<p><b>15</b> Calimesa Bl. / PA-1 Dwy. 3</p> <p>← 100(360)</p> <p>574(195) →</p>	<p><b>16</b> Calimesa Bl. / PA-1 Dwy. 4</p> <p>← 100(360)</p> <p>574(195) →</p>
<p><b>17</b> Calimesa Bl. / PA-2 Dwy.</p> <p>← 99(352) 1(8) ↓</p> <p>↑ 2(7)</p> <p>572(188) →</p>			




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

**EXHIBIT 7-2: HORIZON YEAR (2045) WITHOUT PROJECT  
AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p> <p><b>FUTURE INTERSECTION</b></p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> <p><b>FUTURE INTERSECTION</b></p>



**LEGEND:**

-  = INTERSECTION ID
-  = REALIGNMENT/FUTURE ROADWAY
-  = PLANNING AREA

**EXHIBIT 7-3: HORIZON YEAR (2045) WITHOUT PROJECT SUNDAY MORNING PEAK HOUR TRAFFIC VOLUMES**

1	I-10 EB Ramps / Singleton Rd.	2	I-10 WB Ramps / Singleton Rd.	3	Calimesa Bl. / Singleton Rd.	4	Beckwith Av. / Singleton Rd.																																														
	<table border="1"> <tr><td>← 345</td><td>↑ 688</td></tr> <tr><td>← 1</td><td>↑ 385</td></tr> <tr><td>← 304</td><td></td></tr> <tr><td>→ 581</td><td></td></tr> <tr><td>↓ 311</td><td></td></tr> </table>	← 345	↑ 688	← 1	↑ 385	← 304		→ 581		↓ 311			<table border="1"> <tr><td>↑ 262</td><td></td></tr> <tr><td>↑ 688</td><td></td></tr> <tr><td>← 286</td><td>← 384</td></tr> <tr><td>→ 607</td><td>→ 1</td></tr> <tr><td></td><td>→ 346</td></tr> </table>	↑ 262		↑ 688		← 286	← 384	→ 607	→ 1		→ 346		<table border="1"> <tr><td>← 117</td><td>↑ 133</td></tr> <tr><td>← 72</td><td>↑ 832</td></tr> <tr><td>← 130</td><td>↑ 34</td></tr> <tr><td>→ 128</td><td>→ 94</td></tr> <tr><td>→ 800</td><td>→ 51</td></tr> <tr><td>↓ 110</td><td>↓ 39</td></tr> </table>	← 117	↑ 133	← 72	↑ 832	← 130	↑ 34	→ 128	→ 94	→ 800	→ 51	↓ 110	↓ 39		<table border="1"> <tr><td>↑ 662</td><td></td></tr> <tr><td>↑ 87</td><td></td></tr> <tr><td>← 34</td><td>← 321</td></tr> <tr><td>→ 589</td><td>→ 80</td></tr> <tr><td>↓ 349</td><td></td></tr> </table>	↑ 662		↑ 87		← 34	← 321	→ 589	→ 80	↓ 349					
← 345	↑ 688																																																				
← 1	↑ 385																																																				
← 304																																																					
→ 581																																																					
↓ 311																																																					
↑ 262																																																					
↑ 688																																																					
← 286	← 384																																																				
→ 607	→ 1																																																				
	→ 346																																																				
← 117	↑ 133																																																				
← 72	↑ 832																																																				
← 130	↑ 34																																																				
→ 128	→ 94																																																				
→ 800	→ 51																																																				
↓ 110	↓ 39																																																				
↑ 662																																																					
↑ 87																																																					
← 34	← 321																																																				
→ 589	→ 80																																																				
↓ 349																																																					
5	Singleton Cyn. Rd. / Singleton Rd.	6	Calimesa Bl. / Sandalwood Dr. - 5th St.	7	Roberts Rd. / Cherry Valley Bl.	8	I-10 EB Ramps / Cherry Valley Bl.																																														
	<table border="1"> <tr><td>← 55</td><td>↑ 7</td></tr> <tr><td>← 2</td><td>↑ 702</td></tr> <tr><td>← 9</td><td>↑ 2</td></tr> <tr><td>→ 42</td><td>→ 3</td></tr> <tr><td>→ 590</td><td>→ 2</td></tr> <tr><td>↓ 2</td><td>↓ 2</td></tr> </table>	← 55	↑ 7	← 2	↑ 702	← 9	↑ 2	→ 42	→ 3	→ 590	→ 2	↓ 2	↓ 2		<table border="1"> <tr><td>← 380</td><td>↑ 41</td></tr> <tr><td>← 178</td><td>↑ 309</td></tr> <tr><td>← 40</td><td>↑ 80</td></tr> <tr><td>→ 178</td><td>→ 227</td></tr> <tr><td>→ 227</td><td>→ 457</td></tr> <tr><td>↓ 36</td><td>↓ 175</td></tr> </table>	← 380	↑ 41	← 178	↑ 309	← 40	↑ 80	→ 178	→ 227	→ 227	→ 457	↓ 36	↓ 175		<table border="1"> <tr><td>← 227</td><td>↑ 358</td></tr> <tr><td>← 13</td><td>↑ 502</td></tr> <tr><td>← 408</td><td>↑ 300</td></tr> <tr><td>→ 316</td><td>→ 28</td></tr> <tr><td>→ 502</td><td>→ 4</td></tr> <tr><td>↓ 50</td><td>↓ 174</td></tr> </table>	← 227	↑ 358	← 13	↑ 502	← 408	↑ 300	→ 316	→ 28	→ 502	→ 4	↓ 50	↓ 174		<table border="1"> <tr><td>← 571</td><td>↑ 561</td></tr> <tr><td>← 3</td><td>↑ 312</td></tr> <tr><td>← 486</td><td></td></tr> <tr><td>→ 866</td><td></td></tr> <tr><td>↓ 203</td><td></td></tr> </table>	← 571	↑ 561	← 3	↑ 312	← 486		→ 866		↓ 203	
← 55	↑ 7																																																				
← 2	↑ 702																																																				
← 9	↑ 2																																																				
→ 42	→ 3																																																				
→ 590	→ 2																																																				
↓ 2	↓ 2																																																				
← 380	↑ 41																																																				
← 178	↑ 309																																																				
← 40	↑ 80																																																				
→ 178	→ 227																																																				
→ 227	→ 457																																																				
↓ 36	↓ 175																																																				
← 227	↑ 358																																																				
← 13	↑ 502																																																				
← 408	↑ 300																																																				
→ 316	→ 28																																																				
→ 502	→ 4																																																				
↓ 50	↓ 174																																																				
← 571	↑ 561																																																				
← 3	↑ 312																																																				
← 486																																																					
→ 866																																																					
↓ 203																																																					
9	I-10 WB Ramps / Cherry Valley Bl.	10	Calimesa Bl. / Cherry Valley Bl.	11	Calimesa Bl. / I-10 WB off-ramp	12	Roberts Rd. / Singleton Rd.																																														
	<table border="1"> <tr><td>↑ 402</td><td></td></tr> <tr><td>↑ 682</td><td></td></tr> <tr><td>← 643</td><td>← 191</td></tr> <tr><td>→ 644</td><td>→ 6</td></tr> <tr><td></td><td>→ 408</td></tr> </table>	↑ 402		↑ 682		← 643	← 191	→ 644	→ 6		→ 408		<table border="1"> <tr><td>↑ 104</td><td></td></tr> <tr><td>↑ 709</td><td></td></tr> <tr><td>← 321</td><td>← 92</td></tr> <tr><td>← 337</td><td></td></tr> <tr><td>→ 717</td><td></td></tr> </table>	↑ 104		↑ 709		← 321	← 92	← 337		→ 717			<table border="1"> <tr><td>← 296</td><td></td></tr> <tr><td>← 538</td><td></td></tr> <tr><td>↓ 6</td><td>→ 289</td></tr> </table>	← 296		← 538		↓ 6	→ 289		<table border="1"> <tr><td>↑ 479</td><td></td></tr> <tr><td>↑ 704</td><td></td></tr> <tr><td>↑ 117</td><td></td></tr> <tr><td>← 151</td><td>← 63</td></tr> <tr><td>← 221</td><td>← 625</td></tr> <tr><td>← 426</td><td>← 68</td></tr> <tr><td>→ 72</td><td>→ 139</td></tr> <tr><td>→ 99</td><td></td></tr> </table>	↑ 479		↑ 704		↑ 117		← 151	← 63	← 221	← 625	← 426	← 68	→ 72	→ 139	→ 99					
↑ 402																																																					
↑ 682																																																					
← 643	← 191																																																				
→ 644	→ 6																																																				
	→ 408																																																				
↑ 104																																																					
↑ 709																																																					
← 321	← 92																																																				
← 337																																																					
→ 717																																																					
← 296																																																					
← 538																																																					
↓ 6	→ 289																																																				
↑ 479																																																					
↑ 704																																																					
↑ 117																																																					
← 151	← 63																																																				
← 221	← 625																																																				
← 426	← 68																																																				
→ 72	→ 139																																																				
→ 99																																																					
13	Calimesa Bl. / PA-1 Dwy. 1	14	Calimesa Bl. / PA-1 Dwy. 2	15	Calimesa Bl. / PA-1 Dwy. 3	16	Calimesa Bl. / PA-1 Dwy. 4																																														
	<table border="1"> <tr><td>← 202</td><td></td></tr> <tr><td></td><td>→ 181</td></tr> </table>	← 202			→ 181		<table border="1"> <tr><td>← 202</td><td></td></tr> <tr><td></td><td>→ 180</td></tr> </table>	← 202			→ 180		<table border="1"> <tr><td>← 202</td><td></td></tr> <tr><td></td><td>→ 180</td></tr> </table>	← 202			→ 180		<table border="1"> <tr><td>← 202</td><td></td></tr> <tr><td></td><td>→ 180</td></tr> </table>	← 202			→ 180																														
← 202																																																					
	→ 181																																																				
← 202																																																					
	→ 180																																																				
← 202																																																					
	→ 180																																																				
← 202																																																					
	→ 180																																																				
17	Calimesa Bl. / PA-2 Dwy.																																																				
	<table border="1"> <tr><td>← 202</td><td>↑ 1</td></tr> <tr><td>← 1</td><td></td></tr> <tr><td></td><td>→ 179</td></tr> </table>	← 202	↑ 1	← 1			→ 179																																														
← 202	↑ 1																																																				
← 1																																																					
	→ 179																																																				

## Sunday Morning Peak Hour Intersection Volumes

- I-10 Westbound Ramps & Cherry Valley Boulevard (#9) – LOS F AM, PM, and Sunday peak hours
- Calimesa Boulevard & Cherry Valley Boulevard (#10) – LOS F AM, PM, and Sunday peak hours
- Calimesa Boulevard & I-10 Westbound Off-Ramp (#11) – LOS F AM and PM peak hour; LOS E Sunday peak hour
- Roberts Road & Singleton Road (#12) – LOS F AM, PM, and Sunday peak hours

Intersection analysis worksheets for Horizon Year (2045) Without Project conditions are included in Appendix 7.1.

### **7.2.2 PROJECT SCENARIO 1 (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA2 RESIDENTIAL)**

Horizon Year (2045) With Project Scenario 1 weekday AM and PM peak hour volumes are shown on Exhibit 7-4. Horizon Year (2045) With Project Scenario 1 ADT volumes are shown on Exhibit 7-5. As shown on Table 7-1, the addition of Project Scenario 1 traffic is not anticipated to result in any new deficiencies from those identified under Horizon Year (2045) Without Project traffic conditions. Intersection analysis worksheets for Horizon Year (2045) Without Project conditions are included in Appendix 7.2.

### **7.2.3 PROJECT SCENARIO 2 (PA1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA2 RESIDENTIAL)**

Horizon Year (2045) With Project Scenario 2 weekday AM and PM peak hour volumes are shown on Exhibits 7-6. Horizon Year (2045) With Project Scenario 2 weekday ADT volumes are shown on Exhibits 7-7. As shown on Table 7-1, the addition of Project Scenario 2 traffic is not anticipated to result in any new deficiencies from those identified under Horizon Year (2045) Without Project traffic conditions. Intersection analysis worksheets for Horizon Year (2045) Without Project conditions are included in Appendix 7.3.

### **7.2.5 PROJECT SCENARIO 3, SUNDAY MORNING (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA2 CHURCH)**

Sunday Morning Horizon Year (2045) With Scenario 3 volumes are shown on Exhibits 7-8. As shown on Table 7-1, the addition of Project Scenario 3 traffic is not anticipated to result in any new deficiencies from those identified under Horizon Year (2045) Without Project traffic conditions. Intersection analysis worksheets for Sunday Morning Horizon Year (2045) Without Project conditions are included in Appendix 7.4. Intersection analysis worksheets for Sunday Morning Horizon Year (2045) Scenario 3 conditions are included in Appendix 7.5.

## **7.3 HORIZON YEAR (2045) TRAFFIC SIGNAL WARRANTS ANALYSIS**

The traffic signal warrant analysis for Horizon Year (2045) traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. Traffic signal warrant analysis is summarized on Table 1-4. Singleton Canyon Road at Singleton Road is anticipated to warrant a traffic signal under Horizon Year (2045) Without and With Project traffic conditions in addition to those warranted under previous analysis scenarios (see Appendix 7.6).



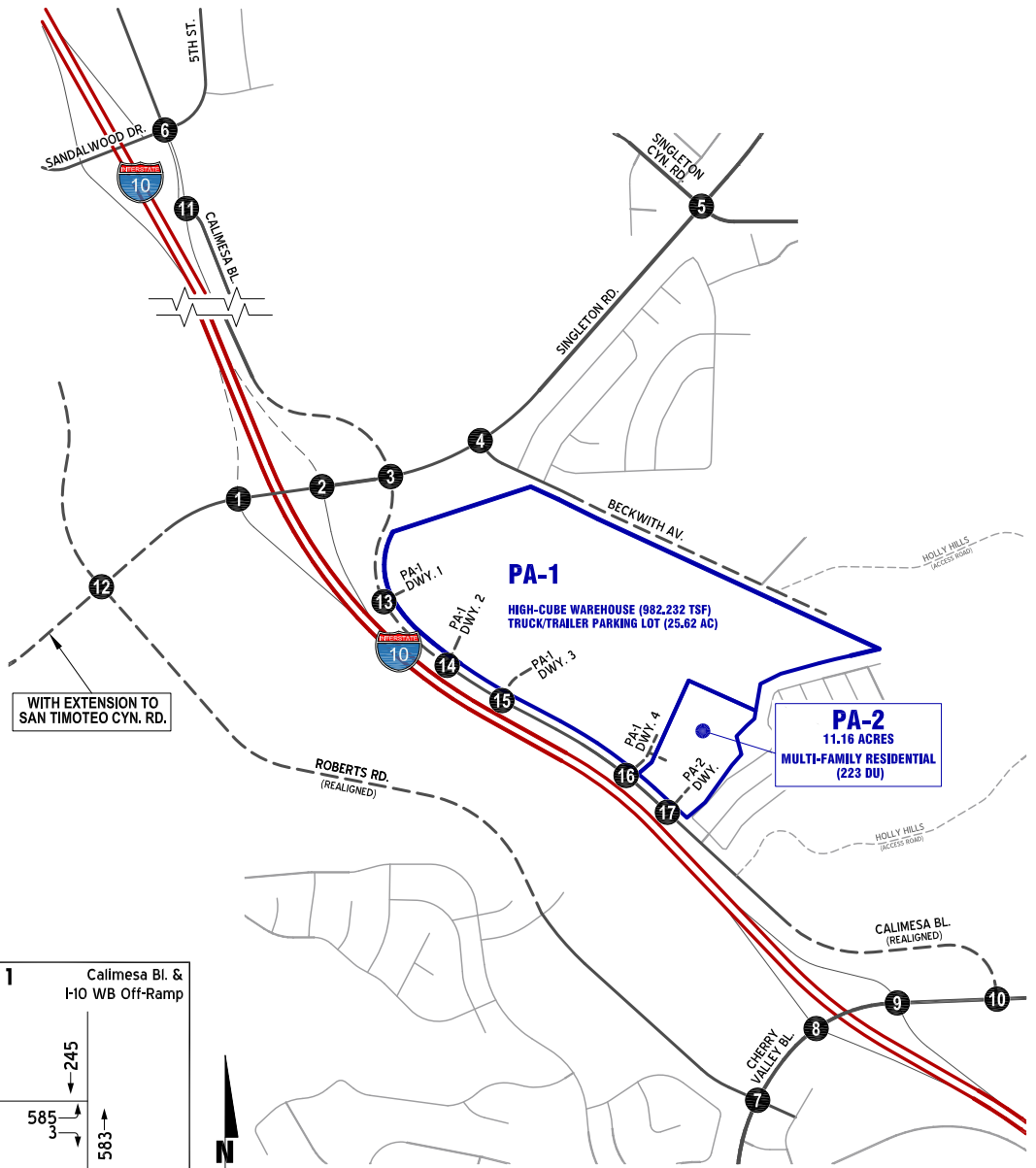
**EXHIBIT 7-4: HORIZON YEAR (2045) WITH PROJECT SCENARIO 1 WEEKDAY PEAK HOUR TRAFFIC VOLUMES**

1	I-10 EB Ramps / Singleton Rd.	2	I-10 WB Ramps / Singleton Rd.	3	Calimesa Bl. / Singleton Rd.	4	Beckwith Av. / Singleton Rd.
	↓ 350(644) ↓ 336(675) ← 589(1144) ↑ 580(483) 680(1114) → 447(652) ↓		↑ 692(688) ← 859(910) 411(679) → 754(1110) → 309(717) ↓ 349(645) ↑		↓ 200(268) ↓ 33(141) ↓ 88(225) ↑ 236(112) ← 1147(1121) ↓ 42(88) 188(174) → 832(1301) → 183(350) ↓ 242(320) ↓ 294(75) ↑ 167(53) ↑		← 975(890) ↑ 91(166) 31(173) → 866(968) → 177(486) ↓ 429(250) ↓ 104(130) ↑
5	Singleton Cyn. Rd. / Singleton Rd.	6	Calimesa Bl. / Sandalwood Dr. - 5th St.	7	Roberts Rd. / Cherry Valley Bl.	8	I-10 EB Ramps / Cherry Valley Bl.
	↓ 130(59) ↓ 5(15) ↓ 25(20) ↑ 15(17) ← 844(969) ↑ 13(34) 42(110) → 894(932) → 34(56) ↓ 91(28) ↓ 13(5) ↑ 24(30) ↓		↓ 497(538) ↓ 172(400) ↓ 28(37) ↑ 23(32) ← 472(456) ↑ 38(104) 265(214) → 411(271) → 120(145) ↓ 1110(1140) ↓ 540(424) ↑ 234(239) ↓		↓ 319(396) ↓ 25(13) ↓ 579(386) ↑ 409(500) ← 517(798) ↑ 149(301) 422(343) → 591(705) → 25(29) ↓ 13(29) ↓ 28(10) ↑ 141(163) ↑		↓ 496(903) ↓ 440(587) ↑ 580(696) ↑ 506(566) 1094(1020) → 219(236) ↓
9	I-10 WB Ramps / Cherry Valley Bl.	10	Calimesa Bl. / Cherry Valley Bl.	11	Calimesa Bl. / I-10 WB off-ramp	12	Roberts Rd. / Singleton Rd.
	↑ 652(610) ← 881(1002) 778(559) → 756(1048) → 204(259) ↓ 12(10) ↓ 544(647) ↓		↓ 434(429) ↓ 101(155) ↑ 182(115) ← 1099(1183) 472(535) → 829(1160) →		↓ 277(604) ↑ 73(91) 585(1019) → 70(45) → 3(2) ↓ 1476(1302) ↓		↓ 158(121) ↓ 245(195) ↓ 531(480) ↑ 232(583) ← 631(965) ↑ 311(599) 76(205) → 754(779) → 118(161) ↓ 419(200) ↓ 252(299) ↓ 571(722) ↓
13	Calimesa Bl. / PA-1 Dwy. 1	14	Calimesa Bl. / PA-1 Dwy. 2	15	Calimesa Bl. / PA-1 Dwy. 3	16	Calimesa Bl. / PA-1 Dwy. 4
	↓ 222(527) ↓ 15(7) ↑ 4(18) ↑ 2(10) 692(374) ↑ 8(4) ↑		↓ 187(519) ↓ 36(18) ↑ 11(46) ↑ 2(10) 689(330) ↑ 8(4) ↑		↓ 140(433) ↓ 51(98) ↑ 60(77) ↑ 26(35) 636(256) ↑ 24(42) ↑		↓ 137(436) ↓ 29(32) ↑ 27(41) ↑ 18(27) 633(257) ↑ 19(21) ↑
17	Calimesa Bl. / PA-2 Dwy.						
	↓ 148(434) ↓ 8(29) ↑ 22(20) ↑ 13(8) 630(259) ↑ 4(14) ↑						

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

**EXHIBIT 7-5: HORIZON YEAR (2045) WITH PROJECT SCENARIO 1  
AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	



**LEGEND:**

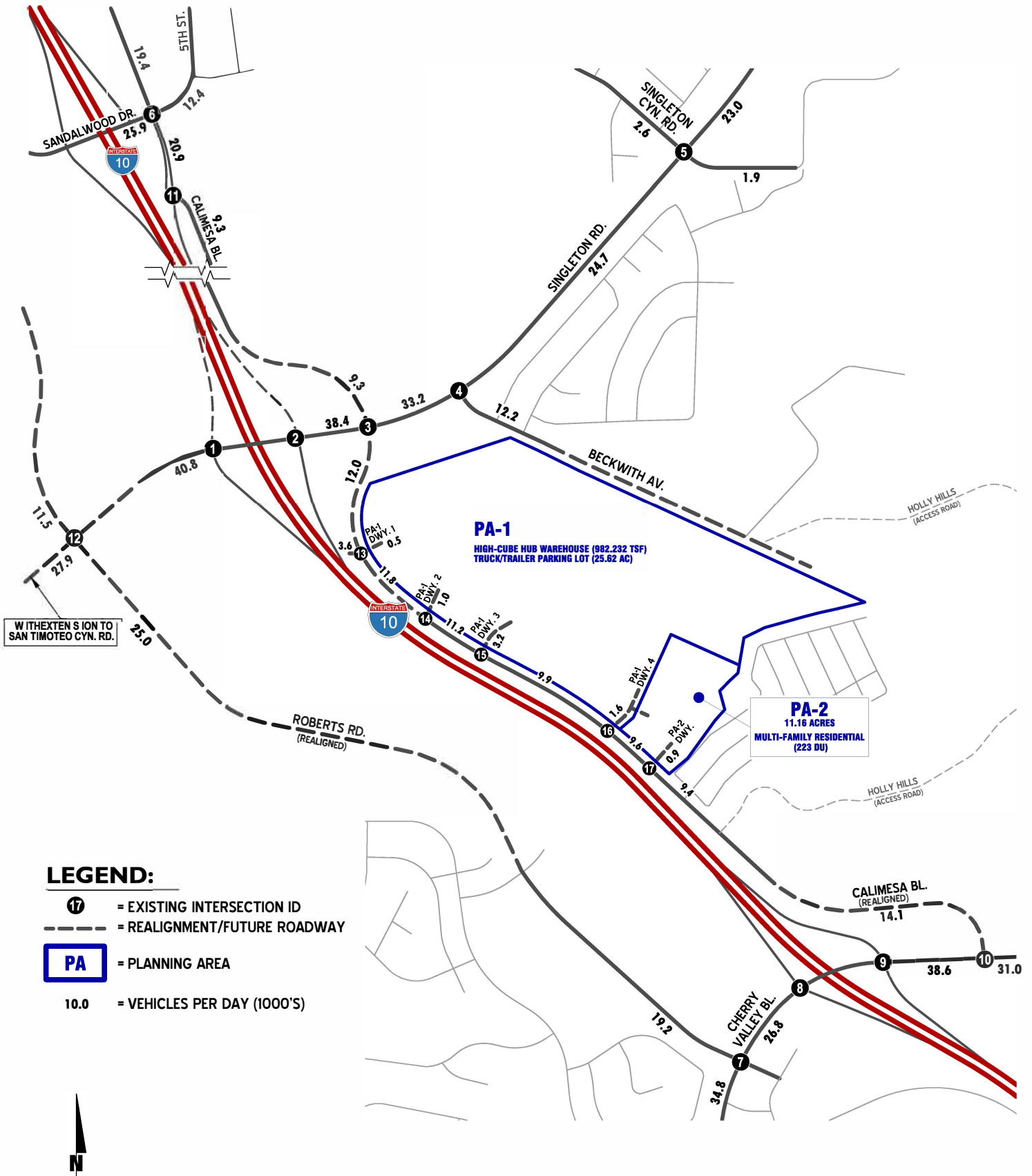
- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

**EXHIBIT 7-6: HORIZON YEAR (2045) WITH PROJECT SCENARIO 2 WEEKDAY PEAK HOUR TRAFFIC VOLUMES**

1	I-10 EB Ramps / Singleton Rd.	2	I-10 WB Ramps / Singleton Rd.	3	Calimesa Bl. / Singleton Rd.	4	Beckwith Av. / Singleton Rd.
	↓ 350(644) ↓ 490(890) ← 607(1148) ↑ 648(495) 694(1134) → 447(652) ↑		↑ 890(724) ← 945(926) 411(679) → 923(1345) → 309(717) ↑ 402(719) ↑		↓ 200(268) ↓ 47(161) ↓ 88(225) ↑ 236(112) ← 1147(1121) ↑ 56(108) 188(174) ↓ 832(1301) → 404(659) ↓ 527(371) ↑ 312(78) ↑ 185(56) ↑		← 989(910) ↑ 91(166) 31(173) ↓ 884(971) → 177(486) ↓ 429(290) ↑ 104(130) ↑
5	Singleton Cyn. Rd. / Singleton Rd.	6	Calimesa Bl. / Sandalwood Dr. - 5th St.	7	Roberts Rd. / Cherry Valley Bl.	8	I-10 EB Ramps / Cherry Valley Bl.
	↓ 130(59) ↓ 5(15) ↓ 25(20) ↑ 15(17) ↑ 858(989) ↑ 13(34) 42(110) ↓ 912(935) → 34(56) ↓ 91(28) ↓ 13(5) ↑ 24(30) ↑		↓ 497(538) ↓ 186(420) ↓ 28(37) ↑ 23(32) ← 472(456) ↑ 38(104) 265(214) ↓ 411(271) → 120(145) ↓ 1110(1140) ↑ 558(427) ↑ 234(239) ↑		↓ 319(396) ↓ 25(13) ↓ 579(386) ↑ 409(500) ↑ 536(801) ↑ 149(301) 422(343) ↓ 605(725) → 25(29) ↓ 13(29) ↑ 28(10) ↑ 141(163) ↑		↓ 496(903) ↓ 440(587) ↑ 598(699) ↑ 608(584) 1108(1040) → 219(236) ↓
9	I-10 WB Ramps / Cherry Valley Bl.	10	Calimesa Bl. / Cherry Valley Bl.	11	Calimesa Bl. / I-10 WB off-ramp	12	Roberts Rd. / Singleton Rd.
	↑ 652(610) ← 1001(1024) 778(559) ↓ 770(1068) → 204(259) ↓ 12(10) ↑ 623(758) ↑		↓ 554(451) ↓ 119(158) ↑ 196(135) ↑ 1099(1183) 565(666) ↓ 829(1160) →		↓ 291(624) ↑ 73(91) 585(1019) ↓ 70(45) → 3(2) ↓ 1494(1305) ↑		↓ 158(121) ↓ 245(195) ↓ 531(480) ↑ 232(583) ↑ 650(968) ↑ 311(599) 76(205) ↓ 768(799) → 118(161) ↓ 419(200) ↓ 252(299) ↑ 571(722) ↑
13	Calimesa Bl. / PA-1 Dwy. 1	14	Calimesa Bl. / PA-1 Dwy. 2	15	Calimesa Bl. / PA-1 Dwy. 3	16	Calimesa Bl. / PA-1 Dwy. 4
	↓ 437(826) ↓ 50(57) ↑ 50(27) ↑ 26(14) 969(423) ↑ 26(29) ↑		↓ 337(699) ↓ 125(141) ↑ 125(67) ↑ 26(14) 869(385) ↑ 26(29) ↑		↓ 241(516) ↓ 123(198) ↑ 153(94) ↑ 72(44) 742(319) ↑ 59(92) ↑		↓ 231(452) ↓ 83(107) ↑ 96(53) ↑ 64(35) 705(358) ↑ 55(71) ↑
17	Calimesa Bl. / PA-2 Dwy.						
	↓ 287(459) ↓ 8(29) ↑ 22(20) ↑ 13(8) 738(410) ↑ 4(14) ↑						

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

**EXHIBIT 7-5: HORIZON YEAR (2045) WITH PROJECT SCENARIO 1  
AVERAGE DAILY TRAFFIC VOLUMES**



**EXHIBIT 7-8: HORIZON YEAR (2045) WITH PROJECT SCENARIO 3 SUNDAY MORNING TRAFFIC VOLUMES**

<b>1</b>	<b>I-10 EB Ramps / Singleton Rd.</b>	<b>2</b>	<b>I-10 WB Ramps / Singleton Rd.</b>	<b>3</b>	<b>Calimesa Bl. / Singleton Rd.</b>	<b>4</b>	<b>Beckwith Av. / Singleton Rd.</b>																																																																								
<table border="1"> <tr><td>← 345</td><td>↑ 720</td></tr> <tr><td>← 1</td><td>↑ 390</td></tr> <tr><td>↓ 388</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>613 →</td><td></td></tr> <tr><td>311 ↓</td><td></td></tr> </table>	← 345	↑ 720	← 1	↑ 390	↓ 388		<hr/>		613 →		311 ↓			<table border="1"> <tr><td>↑ 341</td><td></td></tr> <tr><td>← 725</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>286 ↓</td><td></td></tr> <tr><td>722 →</td><td></td></tr> <tr><td>384 ←</td><td>1 →</td></tr> <tr><td></td><td>354 ↗</td></tr> </table>	↑ 341		← 725		<hr/>		286 ↓		722 →		384 ←	1 →		354 ↗	<table border="1"> <tr><td>↑ 133</td><td></td></tr> <tr><td>← 832</td><td></td></tr> <tr><td>↓ 117</td><td></td></tr> <tr><td>↓ 104</td><td></td></tr> <tr><td>↓ 130</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>128 ↓</td><td></td></tr> <tr><td>800 →</td><td></td></tr> <tr><td>233 ↓</td><td></td></tr> <tr><td>210 ←</td><td>83 →</td></tr> <tr><td></td><td>71 ↗</td></tr> </table>	↑ 133		← 832		↓ 117		↓ 104		↓ 130		<hr/>		128 ↓		800 →		233 ↓		210 ←	83 →		71 ↗	<table border="1"> <tr><td>↑ 685</td><td></td></tr> <tr><td>↑ 87</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>34 ↓</td><td></td></tr> <tr><td>612 →</td><td></td></tr> <tr><td>358 ↓</td><td></td></tr> <tr><td>330 ←</td><td>80 ↗</td></tr> </table>	↑ 685		↑ 87		<hr/>		34 ↓		612 →		358 ↓		330 ←	80 ↗													
← 345	↑ 720																																																																														
← 1	↑ 390																																																																														
↓ 388																																																																															
<hr/>																																																																															
613 →																																																																															
311 ↓																																																																															
↑ 341																																																																															
← 725																																																																															
<hr/>																																																																															
286 ↓																																																																															
722 →																																																																															
384 ←	1 →																																																																														
	354 ↗																																																																														
↑ 133																																																																															
← 832																																																																															
↓ 117																																																																															
↓ 104																																																																															
↓ 130																																																																															
<hr/>																																																																															
128 ↓																																																																															
800 →																																																																															
233 ↓																																																																															
210 ←	83 →																																																																														
	71 ↗																																																																														
↑ 685																																																																															
↑ 87																																																																															
<hr/>																																																																															
34 ↓																																																																															
612 →																																																																															
358 ↓																																																																															
330 ←	80 ↗																																																																														
<b>5</b>	<b>Singleton Cyn. Rd. / Singleton Rd.</b>	<b>6</b>	<b>Calimesa Bl. / Sandalwood Dr. - 5th St.</b>	<b>7</b>	<b>Roberts Rd. / Cherry Valley Bl.</b>	<b>8</b>	<b>I-10 EB Ramps / Cherry Valley Bl.</b>																																																																								
<table border="1"> <tr><td>↑ 7</td><td></td></tr> <tr><td>↑ 719</td><td></td></tr> <tr><td>↑ 2</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>48 →</td><td>3 ↗</td></tr> <tr><td>607 →</td><td>2 →</td></tr> <tr><td>2 ↓</td><td>2 ↗</td></tr> </table>	↑ 7		↑ 719		↑ 2		<hr/>		48 →	3 ↗	607 →	2 →	2 ↓	2 ↗	<table border="1"> <tr><td>↑ 41</td><td></td></tr> <tr><td>↑ 309</td><td></td></tr> <tr><td>↑ 95</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>178 ↓</td><td></td></tr> <tr><td>227 →</td><td></td></tr> <tr><td>36 ↓</td><td></td></tr> <tr><td>227 ←</td><td>474 →</td></tr> <tr><td></td><td>191 ↗</td></tr> </table>	↑ 41		↑ 309		↑ 95		<hr/>		178 ↓		227 →		36 ↓		227 ←	474 →		191 ↗	<table border="1"> <tr><td>↑ 374</td><td></td></tr> <tr><td>↑ 550</td><td></td></tr> <tr><td>↑ 300</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>227 ←</td><td></td></tr> <tr><td>13 ←</td><td></td></tr> <tr><td>423 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>316 ↓</td><td></td></tr> <tr><td>549 →</td><td></td></tr> <tr><td>50 ↓</td><td></td></tr> <tr><td>28 ↗</td><td>4 →</td></tr> <tr><td></td><td>174 ↗</td></tr> </table>	↑ 374		↑ 550		↑ 300		<hr/>		227 ←		13 ←		423 ←		<hr/>		316 ↓		549 →		50 ↓		28 ↗	4 →		174 ↗	<table border="1"> <tr><td>↑ 624</td><td></td></tr> <tr><td>↑ 383</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>571 ←</td><td></td></tr> <tr><td>3 ←</td><td></td></tr> <tr><td>486 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>928 →</td><td></td></tr> <tr><td>203 ↓</td><td></td></tr> </table>	↑ 624		↑ 383		<hr/>		571 ←		3 ←		486 ←		<hr/>		928 →		203 ↓	
↑ 7																																																																															
↑ 719																																																																															
↑ 2																																																																															
<hr/>																																																																															
48 →	3 ↗																																																																														
607 →	2 →																																																																														
2 ↓	2 ↗																																																																														
↑ 41																																																																															
↑ 309																																																																															
↑ 95																																																																															
<hr/>																																																																															
178 ↓																																																																															
227 →																																																																															
36 ↓																																																																															
227 ←	474 →																																																																														
	191 ↗																																																																														
↑ 374																																																																															
↑ 550																																																																															
↑ 300																																																																															
<hr/>																																																																															
227 ←																																																																															
13 ←																																																																															
423 ←																																																																															
<hr/>																																																																															
316 ↓																																																																															
549 →																																																																															
50 ↓																																																																															
28 ↗	4 →																																																																														
	174 ↗																																																																														
↑ 624																																																																															
↑ 383																																																																															
<hr/>																																																																															
571 ←																																																																															
3 ←																																																																															
486 ←																																																																															
<hr/>																																																																															
928 →																																																																															
203 ↓																																																																															
<b>9</b>	<b>I-10 WB Ramps / Cherry Valley Bl.</b>	<b>10</b>	<b>Calimesa Bl. / Cherry Valley Bl.</b>	<b>11</b>	<b>Calimesa Bl. / I-10 WB off-ramp</b>	<b>12</b>	<b>Roberts Rd. / Singleton Rd.</b>																																																																								
<table border="1"> <tr><td>↑ 402</td><td></td></tr> <tr><td>← 816</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>643 ↓</td><td></td></tr> <tr><td>706 →</td><td></td></tr> <tr><td>191 ←</td><td>6 →</td></tr> <tr><td></td><td>480 ↗</td></tr> </table>	↑ 402		← 816		<hr/>		643 ↓		706 →		191 ←	6 →		480 ↗	<table border="1"> <tr><td>↑ 136</td><td></td></tr> <tr><td>↑ 709</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>455 ←</td><td></td></tr> <tr><td>124 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>471 ↓</td><td></td></tr> <tr><td>717 →</td><td></td></tr> </table>	↑ 136		↑ 709		<hr/>		455 ←		124 ←		<hr/>		471 ↓		717 →		<table border="1"> <tr><td>← 328</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>538 ↓</td><td></td></tr> <tr><td>6 ↓</td><td></td></tr> <tr><td></td><td>321 →</td></tr> </table>	← 328		<hr/>		538 ↓		6 ↓			321 →	<table border="1"> <tr><td>↑ 488</td><td></td></tr> <tr><td>↑ 720</td><td></td></tr> <tr><td>↑ 123</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>151 ←</td><td></td></tr> <tr><td>221 ←</td><td></td></tr> <tr><td>435 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>63 ↓</td><td></td></tr> <tr><td>642 →</td><td></td></tr> <tr><td>68 ↓</td><td></td></tr> <tr><td>72 ↗</td><td>139 →</td></tr> <tr><td></td><td>105 ↗</td></tr> </table>	↑ 488		↑ 720		↑ 123		<hr/>		151 ←		221 ←		435 ←		<hr/>		63 ↓		642 →		68 ↓		72 ↗	139 →		105 ↗										
↑ 402																																																																															
← 816																																																																															
<hr/>																																																																															
643 ↓																																																																															
706 →																																																																															
191 ←	6 →																																																																														
	480 ↗																																																																														
↑ 136																																																																															
↑ 709																																																																															
<hr/>																																																																															
455 ←																																																																															
124 ←																																																																															
<hr/>																																																																															
471 ↓																																																																															
717 →																																																																															
← 328																																																																															
<hr/>																																																																															
538 ↓																																																																															
6 ↓																																																																															
	321 →																																																																														
↑ 488																																																																															
↑ 720																																																																															
↑ 123																																																																															
<hr/>																																																																															
151 ←																																																																															
221 ←																																																																															
435 ←																																																																															
<hr/>																																																																															
63 ↓																																																																															
642 →																																																																															
68 ↓																																																																															
72 ↗	139 →																																																																														
	105 ↗																																																																														
<b>13</b>	<b>Calimesa Bl. / PA-1 Dwy. 1</b>	<b>14</b>	<b>Calimesa Bl. / PA-1 Dwy. 2</b>	<b>15</b>	<b>Calimesa Bl. / PA-1 Dwy. 3</b>	<b>16</b>	<b>Calimesa Bl. / PA-1 Dwy. 4</b>																																																																								
<table border="1"> <tr><td>↑ 1</td><td></td></tr> <tr><td>↑ 1</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>385 ←</td><td></td></tr> <tr><td>4 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>360 →</td><td></td></tr> <tr><td></td><td>2 ↗</td></tr> </table>	↑ 1		↑ 1		<hr/>		385 ←		4 ←		<hr/>		360 →			2 ↗	<table border="1"> <tr><td>↑ 3</td><td></td></tr> <tr><td>↑ 1</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>374 ←</td><td></td></tr> <tr><td>11 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>358 →</td><td></td></tr> <tr><td></td><td>2 ↗</td></tr> </table>	↑ 3		↑ 1		<hr/>		374 ←		11 ←		<hr/>		358 →			2 ↗	<table border="1"> <tr><td>↑ 17</td><td></td></tr> <tr><td>↑ 8</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>360 ←</td><td></td></tr> <tr><td>15 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>342 →</td><td></td></tr> <tr><td></td><td>7 ↗</td></tr> </table>	↑ 17		↑ 8		<hr/>		360 ←		15 ←		<hr/>		342 →			7 ↗	<table border="1"> <tr><td>↑ 64</td><td></td></tr> <tr><td>↑ 95</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>301 ←</td><td></td></tr> <tr><td>67 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>285 →</td><td></td></tr> <tr><td></td><td>94 ↗</td></tr> </table>	↑ 64		↑ 95		<hr/>		301 ←		67 ←		<hr/>		285 →			94 ↗												
↑ 1																																																																															
↑ 1																																																																															
<hr/>																																																																															
385 ←																																																																															
4 ←																																																																															
<hr/>																																																																															
360 →																																																																															
	2 ↗																																																																														
↑ 3																																																																															
↑ 1																																																																															
<hr/>																																																																															
374 ←																																																																															
11 ←																																																																															
<hr/>																																																																															
358 →																																																																															
	2 ↗																																																																														
↑ 17																																																																															
↑ 8																																																																															
<hr/>																																																																															
360 ←																																																																															
15 ←																																																																															
<hr/>																																																																															
342 →																																																																															
	7 ↗																																																																														
↑ 64																																																																															
↑ 95																																																																															
<hr/>																																																																															
301 ←																																																																															
67 ←																																																																															
<hr/>																																																																															
285 →																																																																															
	94 ↗																																																																														
<b>17</b>	<b>Calimesa Bl. / PA-2 Dwy.</b>																																																																														
<table border="1"> <tr><td>↑ 95</td><td></td></tr> <tr><td>↑ 63</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>306 ←</td><td></td></tr> <tr><td>91 ←</td><td></td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td>285 →</td><td></td></tr> <tr><td></td><td>60 ↗</td></tr> </table>	↑ 95		↑ 63		<hr/>		306 ←		91 ←		<hr/>		285 →			60 ↗																																																															
↑ 95																																																																															
↑ 63																																																																															
<hr/>																																																																															
306 ←																																																																															
91 ←																																																																															
<hr/>																																																																															
285 →																																																																															
	60 ↗																																																																														

## Sunday Morning Peak Hour Intersection Volumes

## 7.4 HORIZON YEAR (2045) DEFICIENCIES AND IMPROVEMENTS

This section provides a summary of deficiencies, based on the City of Calimesa's deficiency criteria discussed in Section 2.6 *Deficiency Criteria*, and improvements needed to improve operations back to acceptable levels.

The improvements needed to provide acceptable levels of service at each of the study area intersections under Horizon Year (2045) traffic conditions are shown on Table 7-3. The effectiveness of the recommended improvement strategies to address Horizon Year (2045) traffic deficiencies are presented in Table 7-4. Appendices 7.6, 7.7, 7.8, and 7.9 contain HCM calculation worksheets for the Horizon Year (2045) With Improvements for Without Project, With Project Scenario 1, With Project Scenario 2, and With Project Scenario 3 conditions, respectively.

Per request of the City of Calimesa, improvements for the Singleton Road / I-10 Freeway interchange for Interim Year Cumulative (2028) conditions have been conducted with the proposed lane geometrics consistent with the Intersection Control Evaluation (ICE) Report. (7) The roundabout and diverging diamond interchange control options are not feasible, nor recommended per the ICE report and have not been utilized in the operations analysis. The ICE proposed lane geometrics, shown previously on Exhibit 6-6, were not sufficient to improve operations for the Singleton Road / I-10 Freeway interchange back to acceptable levels, therefore alternative improvements to achieve acceptable LOS has also been included.

**TABLE 7-2: INTERSECTION APPROACH LANES FOR HORIZON YEAR (2045) CONDITIONS WITH IMPROVEMENTS**

#	Intersection	Traffic Control'	Intersection Approach Lanes											
			Northbound			Southbound			Eastbound			Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
1	I-10 EB Ramps / Singleton Rd.													
	- No Improvements	CSS	0	0	0	0	0	0	0	1	0	0	1	0
	- ICE Control Option	<b>TS</b>	0	0	0	<b>0.5</b>	<b>0.5</b>	<b>1</b>	0	<b>0.5</b>	<b>0.5</b>	<b>1</b>	1	0
	- Without Project	<b>TS</b>	0	0	0	<b>0.5</b>	<b>0.5</b>	<b>2</b>	0	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	0
	- Project Scenario 1	<b>TS</b>	0	0	0	<b>0.5</b>	<b>0.5</b>	<b>2</b>	0	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	0
	- Project Scenario 2	<b>TS</b>	0	0	0	<b>1</b>	<b>1!</b>	<b>1</b>	0	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	0
	- Project Scenario 3	<b>TS</b>	0	0	0	<b>0.5</b>	<b>0.5</b>	<b>2</b>	0	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	0
2	I-10 WB Ramps / Singleton Rd.													
	- No Improvements	CSS	0	1!	0	0	0	0	0	1	0	0	1	0
	- ICE Control Option	<b>TS</b>	0	1!	0	0	0	0	<b>1</b>	1	0	0	1	0
	- Without Project	<b>TS</b>	<b>1.5</b>	0.5	<b>1</b>	0	0	0	<b>2</b>	<b>2</b>	0	0	<b>2</b>	<b>1</b>
	- Project Scenario 1	<b>TS</b>	<b>1.5</b>	0.5	<b>1</b>	0	0	0	<b>2</b>	<b>2</b>	0	0	<b>2</b>	<b>1</b>
	- Project Scenario 2	<b>TS</b>	<b>1.5</b>	0.5	<b>1</b>	0	0	0	<b>2</b>	<b>2</b>	0	0	<b>2</b>	<b>1</b>
	- Project Scenario 3	<b>TS</b>	<b>1.5</b>	0.5	<b>1</b>	0	0	0	<b>2</b>	<b>2</b>	0	0	<b>2</b>	<b>1</b>
3	Calimesa Bl. / Singleton Rd.													
	- No Improvements	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0
	- Without Project	<b>TS</b>	<b>2</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	0
	- Project Scenario 1	<b>TS</b>	<b>2</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	0
	- Project Scenario 2	<b>TS</b>	<b>2</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	0
	- Project Scenario 3	<b>TS</b>	<b>2</b>	<b>2</b>	0	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	0
4	Beckwith Av. / Singleton Rd.													
	- No Improvements	CSS	0	1!	0	0	0	0	0	1	0	1	1	0
	- Without Project	<b>TS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	<b>2</b>	0	1	<b>2</b>	0
	- Project Scenario 1	<b>TS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	<b>2</b>	0	1	<b>2</b>	0
	- Project Scenario 2	<b>TS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	<b>2</b>	0	1	<b>2</b>	0
	- Project Scenario 3	<b>TS</b>	<b>1</b>	0	1	0	0	0	<b>1</b>	<b>2</b>	0	1	<b>2</b>	0
5	Singleton Cyn. Rd. / Singleton Rd.													
	- No Improvements	AWS	0	1!	0	0	1!	0	1	2	0	1	2	0
	- Without Project	<b>TS</b>	<b>1</b>	1	0	<b>1</b>	1	0	1	2	0	1	2	0
	- Project Scenario 1	<b>TS</b>	<b>1</b>	1	0	<b>1</b>	1	0	1	2	0	1	2	0
	- Project Scenario 2	<b>TS</b>	<b>1</b>	1	0	<b>1</b>	1	0	1	2	0	1	2	0
	- Project Scenario 3	<b>TS</b>	<b>1</b>	1	0	<b>1</b>	1	0	1	2	0	1	2	0
6	Calimesa Bl. / Sandalwood Dr. - 5th St.													
	- No Improvements	TS	1	2	d	1	1	1>	1.5	1	1.5	1	1	1
	- Without Project	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0
	- Project Scenario 1	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0
	- Project Scenario 2	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0
	- Project Scenario 3	TS	<b>2</b>	1	d	1	1	1>	1.5	1	1.5	1	<b>2</b>	0

7 Roberts Rd. / Cherry Valley Bl.													
- No Improvements	TS	1	1	1	0	1!	0	1	2	1	1	2	1
- Without Project	TS	1	1	1	<u>2</u>	1	0	<u>2</u>	2	1	<u>2</u>	2	<u>1&gt;</u>
- Project Scenario 1	TS	1	1	1	<u>2</u>	1	0	<u>2</u>	2	1	<u>2</u>	2	<u>1&gt;</u>
- Project Scenario 2	TS	1	1	1	<u>2</u>	1	0	<u>2</u>	2	1	<u>2</u>	2	<u>1&gt;</u>
- Project Scenario 3	TS	1	1	1	<u>2</u>	1	0	<u>2</u>	2	1	<u>2</u>	2	<u>1&gt;</u>
8 I-10 EB Ramps / Cherry Valley Bl.													
- No Improvements	AWS	0	0	0	0	1!	0	0	1	0	0.5	0.5	0
- Without Project	<b>TS</b>	0	0	0	0.5	0.5	<u>2</u>	0	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	0
- Project Scenario 1	<b>TS</b>	0	0	0	0.5	0.5	<u>2</u>	0	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	0
- Project Scenario 2	<b>TS</b>	0	0	0	0.5	0.5	<u>2</u>	0	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	0
- Project Scenario 3	<b>TS</b>	0	0	0	0.5	0.5	<u>2</u>	0	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	0
9 I-10 WB Ramps / Cherry Valley Bl.													
- No Improvements	AWS	0	1!	0	0	0	0	0.5	0.5	0	0	1	0
- Without Project	<b>TS</b>	0.5	0.5	<u>1</u>	0	0	0	<u>2</u>	<u>2</u>	0	0	<u>2</u>	<u>1</u>
- Project Scenario 1	<b>TS</b>	0.5	0.5	<u>1</u>	0	0	0	<u>2</u>	<u>2</u>	0	0	<u>2</u>	<u>1</u>
- Project Scenario 2	<b>TS</b>	0	<b>1!</b>	<u>1</u>	0	0	0	<u>2</u>	<u>2</u>	0	0	<u>2</u>	<u>1</u>
- Project Scenario 3	<b>TS</b>	0.5	0.5	<u>1</u>	0	0	0	<u>2</u>	<u>2</u>	0	0	<u>2</u>	<u>1</u>
10 Calimesa Bl. / Cherry Valley Bl.													
- No Improvements	CSS	0	0	0	0.5	0	0.5	0.5	0.5	0	0	1	0
- Without Project	<b>TS</b>	0	0	0	1	0	<u>1&gt;</u>	<u>1</u>	<u>2</u>	0	0	<u>2</u>	0
- Project Scenario 1	<b>TS</b>	0	0	0	1	0	<u>1&gt;</u>	<u>1</u>	<u>2</u>	0	0	<u>2</u>	0
- Project Scenario 2	<b>TS</b>	0	0	0	1	0	<u>1&gt;</u>	<u>1</u>	<u>2</u>	0	0	<u>2</u>	0
- Project Scenario 3	<b>TS</b>	0	0	0	1	0	<u>1&gt;</u>	<u>1</u>	<u>2</u>	0	0	<u>2</u>	0
11 Calimesa Bl. / I-10 WB off-ramp													
- No Improvements	AWS	0	1	0	0	1	0	0.5	0	0.5	0	0	0
- Without Project	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
- Project Scenario 1	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
- Project Scenario 2	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
- Project Scenario 3	<b>TS</b>	0	<u>2</u>	0	0	1	0	0.5	0	0.5	0	0	0
12 Roberts Rd. / Singleton Rd.													
- No Improvements	CSS	0	1	0	0.5	0.5	0	0	0	0	0	1!	0
- Without Project	<b>TS</b>	<u>1</u>	<u>2</u>	<u>1&gt;</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>
- Project Scenario 1	<b>TS</b>	<u>1</u>	<u>2</u>	<u>1&gt;</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>
- Project Scenario 2	<b>TS</b>	<u>1</u>	<u>2</u>	<u>1&gt;</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>
- Project Scenario 3	<b>TS</b>	<u>1</u>	<u>2</u>	<u>1&gt;</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>

<sup>1</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop; TS = Traffic Signal; **TS** = Improvement

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right Turn Overlap Phasing; 1 = Cumulative Improvement; **1** = Project Improvement



**TABLE 7-3: INTERSECTION ANALYSIS FOR HORIZON YEAR (2045) CONDITIONS WITH IMPROVEMENTS**

# Intersection	Traffic Control <sup>1</sup>	2045 Without Project						2045 With Project (Scenario 1)				2045 With Project (Scenario 2)				2045 With Project (Scenario 3)	
		Delay <sup>2</sup> (secs.)			Level of Service			Delay <sup>2</sup> (secs.)		Level of Service		Delay <sup>2</sup> (secs.)		Level of Service		Delay <sup>2</sup> (secs.)	Level of Service
		AM	PM	Sun	AM	PM	Sun	AM	PM	AM	PM	AM	PM	AM	PM	AM	AM
1 I-10 EB Ramps / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- ICE Control Option	TS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	26.6	34.5	23.6	C	C	C	28.3	45.5	C	D	29.7	38.6	C	D	30.3	C
2 I-10 WB Ramps / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- ICE Control Option	TS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	17.7	27.4	20.6	B	C	C	18.2	37.1	B	D	21.6	46.0	C	D	25.8	C
3 Calimesa Bl. / Singleton Rd.																	
- Without Improvements	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	24.3	27.2	16.0	C	C	B	25.8	25.3	C	C	32.9	27.4	C	C	22.1	C
4 Beckwith Av. / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	17.5	16.4	15.6	B	B	B	17.5	16.3	B	B	17.4	16.3	B	B	21.1	C
5 Singleton Cyn. Rd. / Singleton Rd.																	
- Without Improvements	AWS	<b>85.9</b>	<b>81.0</b>	19.1	F	F	C	<b>88.7</b>	<b>84.5</b>	F	F	<b>93.6</b>	<b>88.5</b>	F	F	20.7	C
- With Improvements	TS	15.9	19.4	13.8	B	B	B	15.9	12.3	B	B	16.1	12.4	B	B	14.1	B
6 Calimesa Bl. / Sandalwood Dr. - 5th St.																	
- Without Improvements	TS	>100.0	>100.0	53.1	F	F	D	>100.0	>100.0	F	F	>100.0	>100.0	F	F	52.8	D
- With Improvements	TS	49.2	51.1	36.9	D	D	D	49.5	51.4	D	D	50.1	54.6	D	D	37.0	D
7 Roberts Rd. / Cherry Valley Bl.																	
- Without Improvements	TS	>200.0	<b>143.8</b>	<b>112.0</b>	F	F	F	>200.0	<b>158.0</b>	F	F	<b>158.3</b>	<b>157.2</b>	F	F	<b>134.0</b>	F
- With Improvements	TS	36.2	43.2	34.9	D	D	C	36.7	43.5	D	D	36.8	43.5	D	D	35.0	C
8 I-10 EB Ramps / Cherry Valley Bl.																	
- Without Improvements	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	28.4	26.9	21.4	C	C	C	35.0	31.8	D	C	36.7	37.2	D	D	32.8	C
9 I-10 WB Ramps / Cherry Valley Bl.																	
- Without Improvements	AWS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	45.8	42.8	25.5	D	D	C	53.7	51.9	D	D	44.6	43.2	D	D	25.8	C
10 Calimesa Bl. / Cherry Valley Bl.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	25.6	24.4	19.1	C	C	B	28.1	27.6	C	C	33.6	40.1	C	D	21.3	C
11 Calimesa Bl. / I-10 WB off-ramp																	
- Without Improvements	AWS	>100.0	>100.0	<b>43.1</b>	F	F	E	>100.0	>100.0	F	F	>100.0	>100.0	F	F	<b>49.0</b>	E
- With Improvements	TS	20.5	53.7	16.4	C	D	B	20.9	54.8	C	D	21.0	54.9	C	D	16.5	B
12 Roberts Rd. / Singleton Rd.																	
- Without Improvements	CSS	>100.0	>100.0	>100.0	F	F	F	>100.0	>100.0	F	F	>100.0	>100.0	F	F	>100.0	F
- With Improvements	TS	49.5	54.7	34.8	D	D	C	52.0	54.8	D	D	52.1	54.9	D	D	35.1	D

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

<sup>1</sup> TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All Way Stop; TS = Traffic Signal; **TS** = Improvement

<sup>2</sup> 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.

## 7.5 QUEUING ANALYSIS

A Queuing analysis was performed for With Project scenarios (Project Scenario 1, Project Scenario 2, and Sunday Project Scenario 3) to assess the adequacy of turn bay lengths to accommodate vehicle queues at the Singleton Interchange area and Project driveways. Queuing analysis findings are presented in Table 7-4 for Horizon Year (2045) with Project, with Improvements, traffic conditions. Queuing analysis worksheets are provided in Appendix 7.7.

The proposed turn bay lengths generally provide adequate storage to accommodate the anticipated 95<sup>th</sup> percentile queues. As shown in Table 7-4, the calculated 95<sup>th</sup> percentile queues occasionally exceed turn storage bays at the following locations, per Project scenario:

### With Project Scenario 3

- I-10 EB Ramps / Singleton Road (#1) - SBR and WBL
- I-10 WB Ramps / Singleton Road (#2) - EBL

### With Project Scenario 2

- I-10 EB Ramps / Singleton Road (#1) - SBR, EBR, WBL
- I-10 WB Ramps / Singleton Road (#2) - EBL
- Calimesa Boulevard / Singleton Road (#3) - NBL & SBL

### With Project Scenario 3

- I-10 EB Ramps / Singleton Road (#1) - WBL

However, it should be noted that review of SimTraffic simulation results indicate that the provided pocket length is adequate to accommodate projected peak hour turning volumes when considering the taper lengths of the storage lane and adjacent lanes with available stacking distance.

**TABLE 7-4: PEAK HOUR QUEUING SUMMARY FOR HORIZON YEAR (2045) CONDITIONS**

ID	Intersection	Movement	Scenario 1				Scenario 2				Scenario 3, Sunday Morning Analysis With PA2 Church		
			Storage Length <sup>2</sup> (ft.)	# of Lanes	95th Percentile Queue Length (ft.) <sup>1</sup>		Storage Length <sup>2</sup> (ft.)	# of Lanes	95th Percentile Queue Length (ft.) <sup>1</sup>		Storage Length <sup>2</sup> (ft.)	# of Lanes	95th Percentile Queue Length (ft.) <sup>1</sup>
					AM	PM			AM	PM			
SINGLETON INTERCHANGE AREA													
1	I-10 EB Ramps / Singleton Rd.	SBL	>300	1	295	428	>300	1.5	202	459	>300	1	303
		SBR	300	2	118	390 <sup>4</sup>	300	1.5	294	414 <sup>4</sup>	300	2	62
		EBR	300	1	100	271	300	1	88	302 <sup>3</sup>	300	1	145
		WBL	230	2	294 <sup>4</sup>	268 <sup>4</sup>	230	2	276 <sup>4</sup>	300 <sup>4</sup>	230	2	282 <sup>4</sup>
2	I-10 WB Ramps / Singleton Rd.	NBL	>200	1.5	183	435	>200	1.5	150	396	>200	1.5	306
		NBR	>200	1.5	243	447	>200	1.5	175	439	>200	1.5	299
		EBL	230	2	198	243 <sup>3</sup>	230	2	181	283 <sup>4</sup>	230	2	111
		WBR	>350	1	122	96	>350	1	139	246	>350	1	65
3	Calimesa Bl. / Singleton Rd.	NBL	200	2	145	194	200	2	272 <sup>3</sup>	224 <sup>3</sup>	200	2	107
		SBL	200	1	158	180	200	1	97	251 <sup>3</sup>	200	1	194
		SBR	300	1	95	140	300	1	213	91	300	1	28
		EBL	300	2	71	111	300	2	90	73	300	2	41
		EBR	>350	1	25	65	>350	1	253	294	>350	1	176
		WBL	200	1	52	63	200	1	48	163	200	1	161
CALIMESA BOULEVARD PROJECT ACCESS POINTS													
13	Calimesa Bl. / PA-1 Dwy. 1	SBL	150	1	22	38	150	1	51	69	150	1	18
		WBL/T/R	>50	1	33	37	>50	1	32	61	>50	1	NOM
14	Calimesa Bl. / PA-1 Dwy. 2	SBL	150	1	33	NOM	150	1	44	69	150	1	16
		WBL/R	>50	1	22	29	>50	1	107	61	>50	1	NOM
15	Calimesa Bl. / PA-1 Dwy. 3	SBL	150	1	43	32	150	1	116	140	150	1	17
		WBL/R	>50	1	46	30	>50	1	174	129	>50	1	34
16	Calimesa Bl. / PA-1 Dwy. 4	SBL	150	1	34	NOM	150	1	57	44	150	1	44
		WBL/R	>50	1	43	68	>50	1	115	56	>50	1	77
17	Calimesa Bl. / PA-2 Dwy.	SBL	150	1	34	NOM	150	1	NOM	18	150	1	44
		WBL/R	>50	1	42	34	>50	1	30	40	>50	1	82

<sup>1</sup> Queue length calculated using SimTraffic. NOM = Nominal, less than 5 ft.

<sup>2</sup> Existing/Proposed length of storage.

<sup>3</sup> 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.

<sup>4</sup> 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.

## 8 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Calimesa are funded through a combination of improvements constructed by the Project, development impact fee programs. Fee programs applicable to the Project are described below.

### 8.1 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by the Western Riverside Council of Governments (WRCOG) based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (3) This regional program was put into place to ensure that development pays its fair share, and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program and is imposed and implemented in every jurisdiction in Western Riverside County.

### 8.2 CITY OF CALIMESA DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The City of Calimesa has created its own local DIF 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. The City's DIF includes a Regional Circulation System Fee to comply with Measure "A" and a Local Circulation System Fee to address transportation improvements which are locally significant. The fee schedule was updated in April 2022 and is adjusted based upon changes in the construction cost index. Under the City's DIF program, the City may grant to 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. The City may grant to 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.

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 implementing 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.

### 8.3 MEASURE A

Measure A, Riverside County's half-cent sales tax for transportation, was adopted by voters in 1988 and extended in 2002. It will continue to fund transportation improvements through 2038. Measure A funds a wide variety of transportation projects and services throughout the County. Riverside County Transportation Commission (RCTC) is responsible for administering the program. Measure A dollars are spent in accordance with a voter-approved expenditure plan that was adopted as part of the 1988 election.

## **8.4 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). Detailed fair share calculations, for each peak hour, have been provided in Table 8-1 for the applicable study area intersections.

**TABLE 8-1: FAIR SHARE CALCULATIONS**

#	Intersection	Existing (2022) Traffic	HY (2045) Future Traffic	Project Only Traffic	Total New Traffic <sup>1</sup>	Project Fair Share (%) <sup>2</sup>
1	I-10 EB Ramps / Singleton Rd.					
	- With Scenario 1 Project					
	• AM Peak Hour	333	2,982	120	2,649	<b>4.5%</b>
	• PM Peak Hour	209	4,712	173	4,503	3.8%
	- With Scenario 2 Project					
	• AM Peak Hour	333	3,236	374	2,903	<b>12.9%</b>
	• PM Peak Hour	209	4,963	424	4,754	8.9%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	202	2,480	153	2,278	<b>6.7%</b>
2	I-10 WB Ramps / Singleton Rd.					
	- With Scenario 1 Project					
	• AM Peak Hour	524	3,225	227	2,701	<b>8.4%</b>
	• PM Peak Hour	484	4,749	326	4,265	7.6%
	- With Scenario 2 Project					
	• AM Peak Hour	524	3,731	733	3,207	<b>22.9%</b>
	• PM Peak Hour	484	5,110	687	4,626	14.9%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	345	2,672	239	2,327	<b>10.3%</b>
3	Calimesa Bl. / Singleton Rd.					
	- With Scenario 1 Project					
	• AM Peak Hour	1,115	3,514	261	2,399	10.9%
	• PM Peak Hour	881	4,048	372	3,167	<b>11.7%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	1,115	4,084	831	2,969	<b>28.0%</b>
	• PM Peak Hour	881	4,454	778	3,573	21.8%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	673	2,730	367	2,057	<b>17.8%</b>
4	Beckwith Av. / Singleton Rd.					
	- With Scenario 1 Project					
	• AM Peak Hour	802	2,673	15	1,871	<b>0.8%</b>
	• PM Peak Hour	692	3,103	20	2,411	0.8%
	- With Scenario 2 Project					
	• AM Peak Hour	802	2,705	47	1,903	<b>2.5%</b>
	• PM Peak Hour	692	3,126	43	2,434	1.8%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	518	2,186	64	1,668	<b>3.8%</b>
5	Singleton Cyn. Rd. / Singleton Rd.					
	- With Scenario 1 Project					
	• AM Peak Hour	815	2,130	15	1,315	1.1%
	• PM Peak Hour	679	2,275	20	1,596	<b>1.3%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	815	2,162	47	1,347	<b>3.5%</b>
	• PM Peak Hour	679	2,298	43	1,619	2.7%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	492	1,464	46	972	<b>4.7%</b>

**TABLE 8-1: FAIR SHARE CALCULATIONS**

#	Intersection	Existing (2022) Traffic	HY (2045) Future Traffic	Project Only Traffic	Total New Traffic <sup>1</sup>	Project Fair Share (%) <sup>2</sup>
6	Calimesa Bl. / Sandalwood Dr. - 5th St.					
	- With Scenario 1 Project					
	• AM Peak Hour	1,775	3,910	19	2,135	0.9%
	• PM Peak Hour	1,537	3,999	26	2,462	<b>1.1%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	1,775	3,942	51	2,167	<b>2.4%</b>
	• PM Peak Hour	1,537	4,022	49	2,485	2.0%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	1,334	2,189	65	855	<b>7.6%</b>
7	Roberts Rd. / Cherry Valley Bl.					
	- With Scenario 1 Project					
	• AM Peak Hour	1,383	3,218	13	1,835	0.7%
	• PM Peak Hour	1,503	3,673	19	2,170	<b>0.9%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	1,383	3,251	46	1,868	<b>2.5%</b>
	• PM Peak Hour	1,503	3,696	42	2,193	1.9%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	1,251	3,008	126	1,757	<b>7.2%</b>
8	I-10 EB Ramps / Cherry Valley Bl.					
	- With Scenario 1 Project					
	• AM Peak Hour	1,466	3,335	64	1,869	3.4%
	• PM Peak Hour	1,749	4,008	89	2,259	<b>3.9%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	1,466	3,469	198	2,003	<b>9.9%</b>
	• PM Peak Hour	1,749	4,049	130	2,300	5.7%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	1,432	3,134	196	1,702	<b>11.5%</b>
9	I-10 WB Ramps / Cherry Valley Bl.					
	- With Scenario 1 Project					
	• AM Peak Hour	1,537	3,827	111	2,290	4.8%
	• PM Peak Hour	1,269	4,135	156	2,866	<b>5.4%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	1,537	4,040	324	2,503	<b>12.9%</b>
	• PM Peak Hour	1,269	4,288	309	3,019	10.2%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	1,152	3,189	268	2,037	<b>13.2%</b>
10	Calimesa Bl. / Cherry Valley Bl.					
	- With Scenario 1 Project					
	• AM Peak Hour	1,039	3,117	126	2,078	6.1%
	• PM Peak Hour	842	3,577	176	2,735	<b>6.4%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	1,039	3,362	371	2,323	<b>16.0%</b>
	• PM Peak Hour	842	3,753	352	2,911	12.1%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	661	2,612	332	1,951	<b>17.0%</b>

**TABLE 8-1: FAIR SHARE CALCULATIONS**

#	Intersection	Existing (2022) Traffic	HY (2045) Future Traffic	Project Only Traffic	Total New Traffic <sup>1</sup>	Project Fair Share (%) <sup>2</sup>
11	Calimesa Bl. / I-10 WB off-ramp					
	- With Scenario 1 Project					
	• AM Peak Hour	852	2,485	19	1,633	<b>1.2%</b>
	• PM Peak Hour	811	3,063	25	2,252	1.1%
	- With Scenario 2 Project					
	• AM Peak Hour	852	2,517	51	1,665	<b>3.1%</b>
	• PM Peak Hour	811	3,086	48	2,275	2.1%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	675	1,009	64	334	<b>19.2%</b>
12	Roberts Rd. / Singleton Rd.					
	- With Scenario 1 Project					
	• AM Peak Hour	8	3,630	14	3,622	0.4%
	• PM Peak Hour	12	4,425	20	4,413	<b>0.5%</b>
	- With Scenario 2 Project					
	• AM Peak Hour	8	3,663	47	3,655	<b>1.3%</b>
	• PM Peak Hour	12	4,448	43	4,436	1.0%
	- With Scenario 3 Project (Sunday Morning With PA2 Church)					
	• Sunday	9	2,375	63	2,366	<b>2.7%</b>

<sup>1</sup> Total New Traffic = (Long Range Future Traffic - Existing Traffic)

<sup>2</sup> Project Fair Share % = (Project Only Traffic / Total New Traffic)



## 9 CONCLUSION

For traffic analysis purposes, three scenarios have been evaluated with the following land uses:

**a. Scenario 1:**

- 982,232 square feet of high-cube warehouse in four buildings (PA1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

**b. Scenario 2:**

- 982,232 square feet of parcel hub warehouse in four buildings (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

**c. Scenario 3 (Sunday Morning Analysis with PA 2 Church):**

- 982,232 square feet of high-cube warehouse (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- Church with 1,200 seats (PA 2).

Project occupancy of PA 1 is anticipated to occur in 2025. Project occupancies for PAs 1 and 2 are anticipated to occur by 2028.

Access will be accommodated to Calimesa Boulevard via 4 driveways for PA 1 (one jointly serving PA 2), with one additional driveway to PA 2. It should be noted that the southerly driveway to PA 1 provides shared access to PA 2. Each of the Project driveways will have full access to/from Calimesa Boulevard (no turn restrictions).

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

- Existing (2022) Conditions
- Opening Year Cumulative (2025) Without Project
- Opening Year Cumulative (2025) With PA1, High-Cube Warehouse & Truck/Trailer Lot
- Opening Year Cumulative (2025) With PA1, Parcel Hub Warehouse & Truck/Trailer Lot
- Interim Year Cumulative (2028) Without Project
- Interim Year Cumulative (2028) With Project Scenario 1
- Interim Year Cumulative (2028) With Project Scenario 2
- Sunday Morning Interim Year Cumulative (2028) With Project Scenario 3
- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project Scenario 1
- Horizon Year (2045) With PA1 Project Scenario 2
- Sunday Morning Horizon Year (2045) With Project Scenario 3

The Project is to construct the following ultimate improvements as design features in conjunction with development of the site based any of the Project Scenarios, unless noted:

- Calimesa Boulevard at its ultimate half-section width as a Major Arterial (typical 92-foot right-of-way) between the Project's northern and southern boundaries consistent with City of Calimesa standards.

#### **Calimesa Boulevard / PA-1 Driveway 1 (#13)**

- Project to install a stop sign for westbound traffic.
  - For Project Scenario 2, additional Project improvement include installation of a traffic signal.
- Northbound - Project to construct a 2<sup>nd</sup> through lane.
  - Adjacent development to construct a left turn lane with a minimum of 150-feet of storage.
- Southbound - Project to construct a left turn lane with a minimum of 150-feet of storage.
  - Cumulative improvement includes a 2<sup>nd</sup> through lane.
- Eastbound - Adjacent development to Install a stop sign for the eastbound traffic.
- Westbound - Project to construct a shared westbound left/right turn lane.

#### **Calimesa Boulevard / PA-1 Driveway 2 (#14)**

- Project to install a stop sign for westbound traffic.
- Northbound - Project to construct a 2<sup>nd</sup> through lane.
- Southbound - Project to construct a left turn lane with a minimum of 150-feet of storage.
  - Cumulative improvement includes a 2<sup>nd</sup> through lane.
- Westbound - Project to construct a shared westbound left/right turn lane.

#### **Calimesa Boulevard / PA-1 Driveway 3 (#15)**

- Project to install a stop sign for westbound traffic.
  - For Project Scenario 2, additional improvements include installation of a traffic signal.
- Northbound - Project to construct a 2<sup>nd</sup> through lane.
- Southbound - Project to construct a left turn lane with a minimum of 150-feet of storage.
  - Cumulative improvement includes a 2<sup>nd</sup> through lane.
- Westbound - Project to construct a shared westbound left/right turn lane.

#### **Calimesa Boulevard / PA-1 Driveway 4 (#16)**

- Project to install a stop sign for westbound traffic.
- Northbound - Project to construct a 2<sup>nd</sup> through lane.
- Southbound - Project to construct a left turn lane with a minimum of 150-feet of storage.
  - Cumulative improvement includes a 2<sup>nd</sup> through lane.
- Westbound - Project to construct a shared westbound left/right turn lane.

**Calimesa Boulevard / PA-2 Driveway 1 (#17)**

- Project to install a stop sign for westbound traffic.
- Northbound - Project to construct a 2<sup>nd</sup> through lane.
- Southbound - Project to construct a left turn lane with a minimum of 150-feet of storage.
  - Cumulative improvement includes a 2<sup>nd</sup> through lane.
- Westbound - Project to construct a shared westbound left/right turn lane.

The Project's responsibility for contributions towards deficient intersection improvements will be fulfilled through various mechanisms, including payment to fair share programs (if applicable) that would be assigned to construction of the identified recommended improvements or separate fair share funding contributions. Table 9-1 presents a summary of the Project's fair share traffic contribution and preliminary rough order of magnitude (ROM) cost estimates based on Horizon Year (2045) conditions the rough order of magnitude (ROM) estimates for each improvement.

## 10 REFERENCES

1. **Fehr & Peers for the City of Calimesa.** *Final City of Calimesa Transportation Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment.* Calimesa : s.n., May 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **Western Riverside Council of Governments.** *TUMF Nexus Study, 2016 Program Update.* July 2017.
4. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
5. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014, Updated March 30, 2021 (Revision 6).
6. **Southern California Association of Governments.** *SoCal Connect.* Adopted September 2020.
7. **Intersection Control Evaluation (ICE) Ramp Intersections: Singleton at Interstate 10 Step One and Step Two Reports.** March 1, 2023.
8. **VRPA Technologies, Inc. for Riverside County Transportation Commission.** *Riverside County Long Range Transportation Study.* County of Riverside : VRPA Technologies, Inc., December 2019.

This page intentionally left blank

## **APPENDIX 1.1: TRAFFIC STUDY SCOPING AGREEMENT**

This Page Intentionally Left Blank

# Attachment A: Project Scoping Form

This scoping form shall be submitted to the City of Calimesa to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

## Project Identification:

Case Number:	DPR: 2205, 2206, 2207; CUP: 2202, 2203, 2204
Related Cases:	TPM 38589
SP No.	Area 4
EIR No.	22-02
GPA No.	22-03
CZ No.	22-01
Project Name:	Oak Valley North Specific Plan
Project Address:	South of Singleton Road at Calimesa Boulevard
Project Opening Year:	Opening Year - 2025 (Planning Area 1) and Interim Year/Full Project - 2028
Project Description:	See attached letter

	Consultant:	Developer:
Name:	Urban Crossroads, Inc. - Marlie Whiteman	Birtcher Development - Lindsey Mansker
Address:	1133 Camelback St. #8329 Newport Beach, CA 92658	450 Newport Center Drive, Suite 220 Newport Beach, CA 92660
Telephone:	(714) 585-0574	(949) 372-8855
Fax/Email:	mwhiteman@urbanxroads.com	l.mansker@birtcher.com

## Trip Generation Information:

Trip Generation Data Source: ITE Trip Generation Manual 11th Edition (2021), TUMF High-Cube Warehouse Trip Generation Study (prepared by WSP, January 2019), and empirical data.

Current General Plan Land Use:  
 Business Park (BP), Light Industrial (LI) and Residential Low Medium (RLM)

Proposed General Plan Land Use:  
 Light Industrial/Business Park (LI/BP) and High Density Residential (RHD)

Current Zoning:  
 Business Park (B-P), Light Industrial (L-I), and Residential Low / Medium (R-L-M).

Proposed Zoning:  
 Specific Plan



	Existing Trip Generation			Proposed Trip Generation (See attached letter) Weekday Scenario 1 / Scenario 2 Trip Generation		
	In	Out	Total	In (PCE)	Out (PCE)	Total (PCE)
AM Trips				199 / 557	185 / 646	384 / 1,203
PM Trips				262 / 761	285 / 368	547 / 1,129

\*PCE = PASSENGER CAR EQUIVALENT

Trip Internalization:  Yes  No ( \_\_\_\_\_ % Trip Discount)  
 Pass-By Allowance:  Yes  No ( \_\_\_\_\_ % Trip Discount)

**Potential Screening Checks**

Is your project screened from specific analyses (see Page 11 of the guidelines related to LOS assessment and Pages 24-26).

**Is the project screened from LOS assessment?**  Yes  No

LOS screening justification (see Page 11 of the guidelines): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Is the project screened from VMT assessment?**  Yes  No

VMT screening justification (see Pages 24-26 of the guidelines): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution): See attached Letter

North	South	East	West
%	%	%	%

- Attach list of Approved and Pending Projects that need to be considered (provided by the City Traffic Engineer and adjacent agencies)
- Attach list of study intersections/roadway segments
- Attach site plan
- Note other specific items to be addressed:
  - Site access
  - On-site circulation
  - Parking
  - Consistency with Plans supporting Bikes/Peds/Transit
  - Other Turn Lane Queues
- Date of Traffic Counts May 2022
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

### VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model Used RIVCOM
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

April 27, 2023

Mr. Mike Thornton  
City of Calimesa  
908 Park Avenue  
Calimesa, CA 92320

**SUBJECT: SCOPING ASSUMPTIONS FOR THE OAK VALLEY NORTH SPECIFIC PLAN TRAFFIC ANALYSIS**

Dear Mr. Mike Thornton:

The firm of Urban Crossroads, Inc. is pleased to submit this letter documenting the recommended scoping assumptions for the preparation of a Traffic Analysis (TA) for the Oak Valley North Specific Plan (referred to as “Project”), which is located at south of Singleton Road at Calimesa Boulevard in the City of Calimesa. The site plan is presented on Exhibit 1. The Specific Plan establishes two planning areas (PAs) as shown on Exhibit 2.

Within PA 1, two alternative approaches to trip generation of the four warehouse buildings will be fully evaluated in terms of average weekday commute periods in the TA. These two scenarios are labeled the “PA 1 High-Cube Warehouse and Truck/Trailer Lot”, and the “PA1 Parcel Hub Warehouse and Truck/Trailer Lot” for purposes of the TA (see descriptions below).

Within PA 2, 223 multi-family residential units are included the weekday analysis of the two PA 1 trip generation scenarios. However, a church facility may be developed in PA 2 instead of residential. A third scenario is therefore proposed to be included in the TA which specifically addresses Sunday morning traffic with the PA 2 church.

The Project Site is currently vacant and undeveloped except for one abandoned structure on the central portion of the property.

The traffic analysis study area (see Exhibit 2) has been defined in conformance with the requirements of Final City of Calimesa Transportation Impact Analysis Guideline for Vehicle Miles Traveled and Level of Service Assessment (May 2020). Consistent with the City’s LOS guidelines, study area intersections have been identified for the Project based on the contribution of 50 or more peak hour trips.

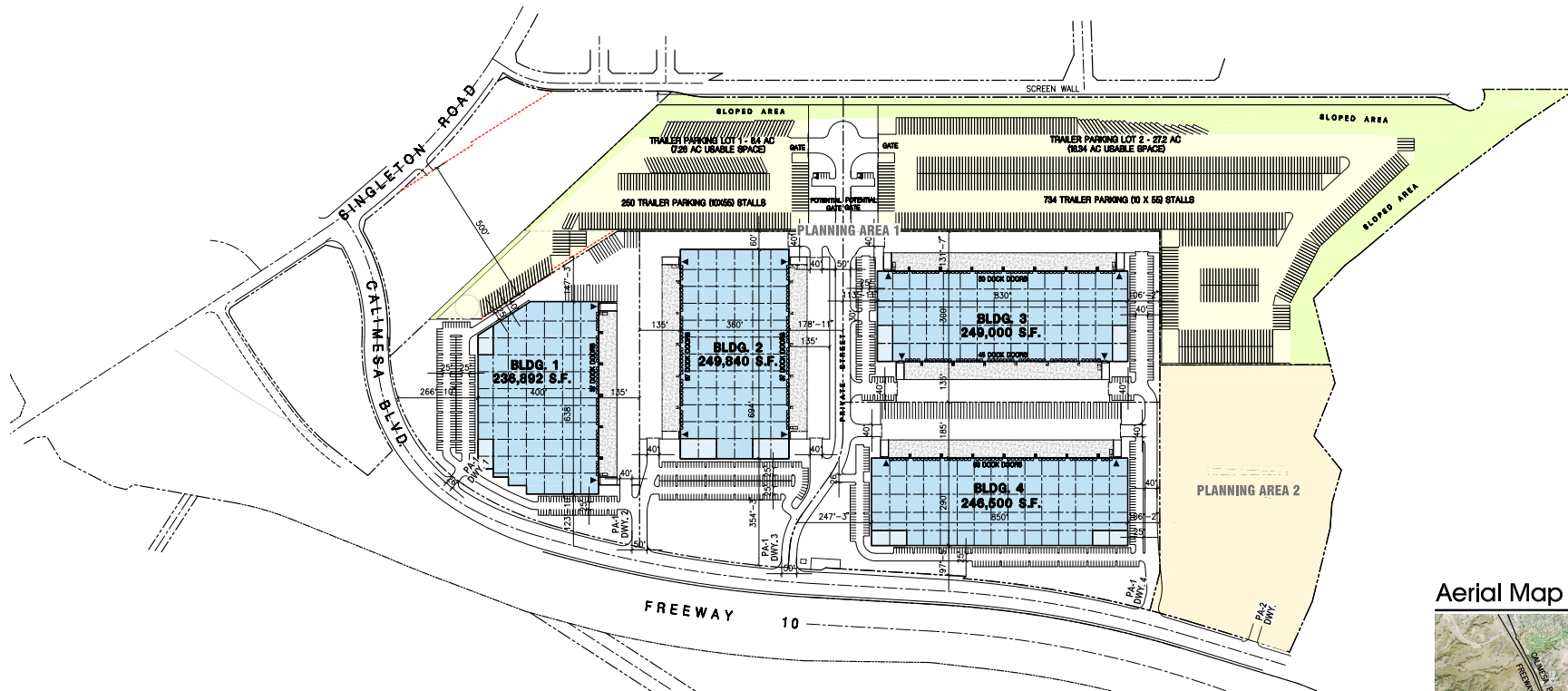
## **PROJECT DESCRIPTION**

For traffic analysis purposes, three scenarios are evaluated with the following land uses:

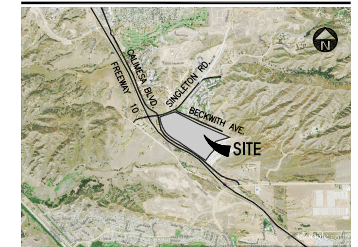
**a. Scenario 1:**

- 982,232 square feet of high-cube warehouse in four buildings (PA1).

EXHIBIT 1: CONCEPTUAL SITE PLAN



Aerial Map



Tabulation

SITE AREA	BLDG.1	BLDG.2	BLDG.3	BLDG.4	TRAILER LOT 1	TRAILER LOT 2	TOTAL	ZONING ORDINANCE FOR CITY
In s.f.	572,474	758,600	595,052	612,188	436,908	1,163,535	4,138,757 s.f.	Zoning Designation - Business Park (BP) & Light Industrial (LI)
In acres	13.1	17.4	13.7	14.1	10.03	26.71	95.0 ac	<b>MAXIMUM BUILDING HEIGHT ALLOWED</b>
<b>NET USABLE SITE AREA</b>								Height - 50'
In s.f.					317,116	798,890	1,116,006 s.f.	<b>MAXIMUM FLOOR AREA RATIO</b>
In acres					7.28	18.34	25.6 ac	FAR - 40
<b>BUILDING AREA</b>								<b>SETBACKS</b>
Office	20,000	20,000	20,000	20,000			80,000 s.f.	Buildings
Warehouse	216,892	229,840	229,000	226,500			902,232 s.f.	Landscape Landscape Landscape
TOTAL	236,892	249,840	249,000	246,500			982,232 s.f.	Collector/Local St. - 15'
COVERAGE	41.4%	32.9%	41.8%	40.3%			23.7%	Major & Secondary St. - 20'
<b>AUTO PARKING REQUIRED</b>								Side / Rear - none, adjoints Rzone 30'
Office: 1/250 s.f.	80	80	80	80			320 stalls	
Whse: 1st 40K @ 1/1,000 s.f.	40	40	40	40			160 stalls	
Whse: Above 40K @ 1/3,000 s.f.	59	64	63	63			249 stalls	
TOTAL	179	184	183	183			729 stalls	
<b>AUTO PARKING PROVIDED</b>								
Standard (9' x 19')	121	119	107	101	4	4	456 stalls	
Accessible Stalls (9' x 19')	7	7	6	6	0	0	26 stalls	
Accessible Stalls - Van (12' x 19')	2	2	1	1	1	1	8 stalls	
EV Capable (Chargers + Supply Equip) 20% of Total	44	43	39	37	0	0	163 stalls	
EV Chargers installed 25% of Total EV Capable	11	11	10	10				
Clean Air/FEV/Carpool/An Pool Vehicles	33	33	28	28	0	0	122 stalls	
TOTAL	218	215	191	183	5	5	775 stalls	
<b>TRAILER PARKING PROVIDED</b>								
Trailer (10' x 55')	31	0	0	79	250	734	1,094 stalls	

**ZONING ORDINANCE FOR CITY**  
 Zoning Designation - Business Park (BP) & Light Industrial (LI)  
**MAXIMUM BUILDING HEIGHT ALLOWED**  
 Height - 50'  
**MAXIMUM FLOOR AREA RATIO**  
 FAR - 40  
**SETBACKS**  
 Buildings Landscape Landscape Landscape  
 Collector/Local St. - 15' 10' 10' 10'  
 Major & Secondary St. - 20' 10' 10' 10'  
 Side / Rear - none, adjoints Rzone 30' 30' + 10' 30' + 10' 30' + 10'

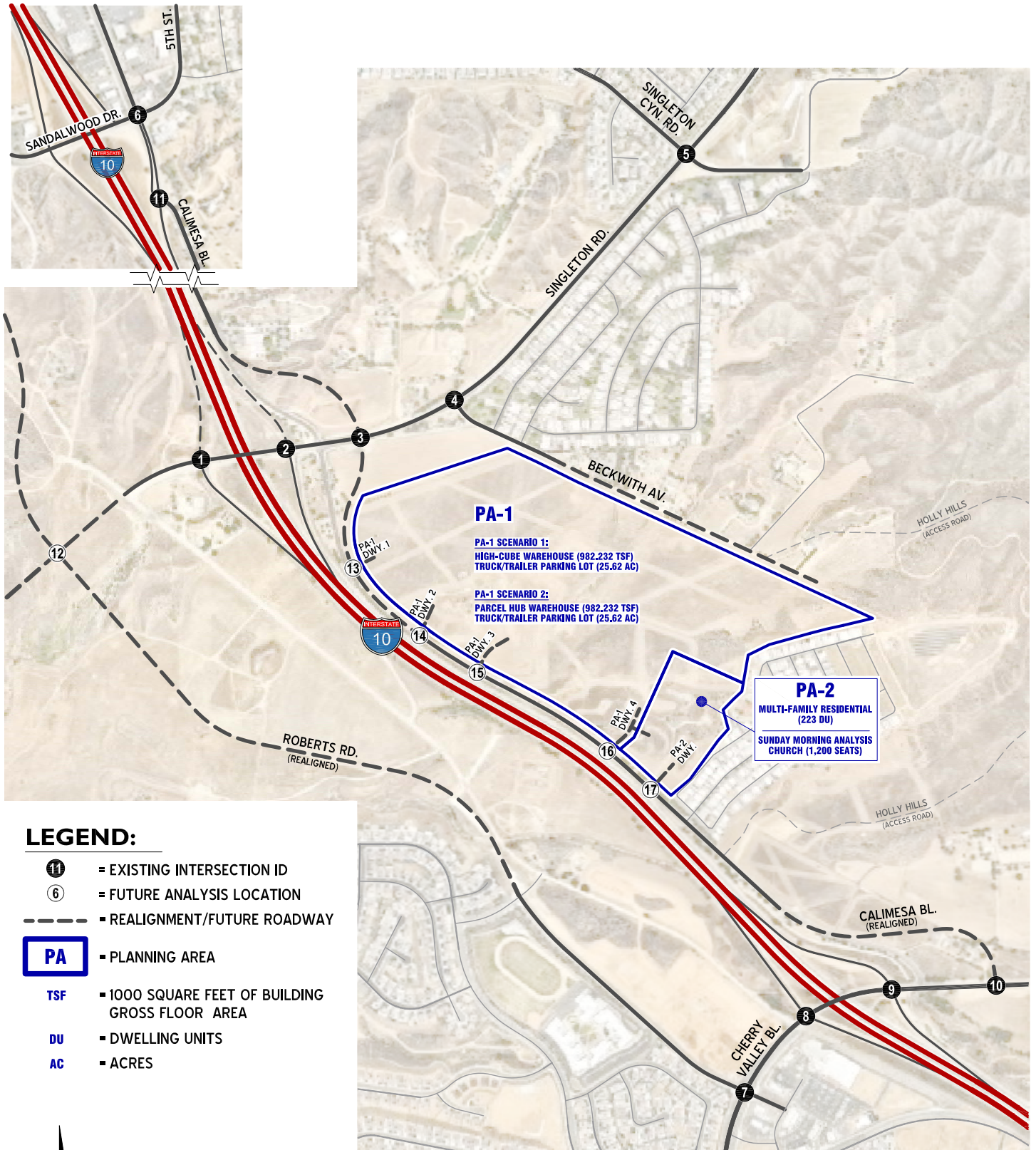
Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.



Legend

- POTENTIAL OFFICE
- WAREHOUSE
- DRIVE THRU DOOR

**EXHIBIT 2: STUDY AREA**





- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

**b. Scenario 2:**

- 982,232 square feet of parcel hub warehouse in four buildings (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- 223 multi-family residential units (PA 2).

**c. Scenario 3 (Sunday Morning Analysis):**

- 982,232 square feet of high-cube warehouse (PA 1).
- 25.62 acres of Truck/Trailer Parking Lot (PA 1).
- Church with 1,200 seats (PA 2).

Project occupancy for PA 1 is anticipated to occur in 2025. Project occupancies for PA 1 and PA 2 are anticipated to occur in 2028.

## **OPENING YEAR (2025) CUMULATIVE ANALYSIS**

To assess potential near-term cumulative traffic conditions, the following Opening Year scenarios will be evaluated in the traffic study:

- Opening Year Cumulative (2025) Without Project.
- Opening Year Cumulative (2025) With PA1, High-Cube Warehouse & Truck/Trailer Lot.
- Opening Year Cumulative (2025) With PA1, Parcel Hub Warehouse & Truck/Trailer Lot.

## **INTERIM YEAR (2028) CUMULATIVE ANALYSIS**

To assess full Project occupancy with interim year cumulative conditions, the following Interim Year scenarios will be evaluated in the traffic study:

- Interim Year Cumulative (2028) Without Project.
- Interim Year Cumulative (2028) With Project Scenario 1.
- Interim Year Cumulative (2028) With Project Scenario 2
- Sunday Morning Interim Year Cumulative (2028) With Project Scenario 3.

Other cumulative development projects will be manually added in conjunction with an ambient (background) growth factor for each of the Opening Year and Interim Year cumulative analysis scenarios. An ambient growth factor of 2% per year (compounded annually) will be utilized.

## **HORIZON YEAR (2045) ANALYSIS**

To assess potential long-range cumulative traffic conditions, the following Horizon Year scenarios will be evaluated in the traffic study:

- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project Scenario 1.
- Horizon Year (2045) With Project Scenario 2.
- Sunday Morning Horizon Year (2045) With Project Scenario 3

Horizon Year (2045) Without Project traffic forecasts will be developed using post-processed traffic volumes from the RIVCOM traffic model. Horizon Year (2045) With Project traffic forecasts will then be determined by adding Project traffic to the Horizon Year (2045) Without Project traffic volumes using the trip generation and distribution patterns identified in this scope.

## **TRIP GENERATION**

### **SCENARIO 1 (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA2 RESIDENTIAL)**

In order to develop the traffic characteristics of Scenario 1, trip-generation statistics published in the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) are used for the PA1 warehouse buildings. The purpose of WSP 2019 study was to gather enough data to develop reliable trip generation rates for centers for use in traffic impact studies in the Inland Empire. In addition, the South Coast Air Quality Management District (SCAQMD) recommends the use of 0.64 truck trips per 1,000 square feet, which would account for variations in the future users.

For the Truck/Trailer Parking Lot land use, the ITE Trip Generation Manual does not currently have applicable trip generation rates. Estimates for the proposed truck/trailer parking lot land use have been developed using data collected at two facilities with operations similar to the Project. Table 1.1 in Attachment A summarizes the count data collected at the sample truck/trailer parking lots. Attachment A also provides supporting count data at the two sample locations. A truck trailer lot can be used to drop off loaded trailers being exchanged from one tractor to another (this is to improve the efficiency of the delivery process). The drop lot can also be used to park empty trailers that are not currently in use and are either not currently needed for deliveries or waiting to be taken back to the port.

Passenger car equivalents (PCEs) allow the typical “real-world” mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses.

For 2025 conditions, Table 1 shows the vehicle trip generation rates for the PA1 High-Cube Warehouse & Truck/Trailer Lot, as well as the vehicle trip generation summary with daily

**TABLE 1: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.094	0.028	0.122	0.046	0.119	0.165	2.129
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489
		2 to 4-Axle+ Trucks	0.028	0.008	0.036	0.014	0.036	0.050	0.640
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.71
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079
		2-Axle Trucks	0.080	0.000	0.080	0.111	0.222	0.333	4.207
		3-Axle Trucks	0.190	0.793	0.983	0.349	0.238	0.587	10.968
		4-Axle+ Trucks	0.190	0.318	0.508	1.111	0.301	1.412	15.460

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Warehouse	--	982.232 TSF							
	- Passenger Cars			64	20	84	32	81	113	1,463
	- Truck Trips (Actual)			28	8	36	14	35	49	629
	High Cube Parcel Warehouse Subtotal			92	28	120	46	116	162	2,092
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
	- Truck Trips									
	2-axle:			2	0	2	3	6	9	108
	3-axle:			5	20	25	9	6	15	281
	4+-axle:			5	8	13	28	8	36	396
- Net Truck Trips (Actual Vehicles)			12	28	40	40	20	60	785	
Truck/Trailer Parking Lot Subtotal			14	36	50	51	32	83	1,094	
Passenger Cars Subtotal			66	28	94	43	93	136	1,772	
Truck Trips Subtotal			40	36	76	54	55	109	1,414	
<b>OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)<sup>5</sup></b>				<b>106</b>	<b>64</b>	<b>170</b>	<b>97</b>	<b>148</b>	<b>245</b>	<b>3,186</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Source: *TUMF High-Cube Warehouse Trip Generation Study*. Prepared by WSP, January 2019.

Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship

Truck Daily Rate Source: *Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center*.

Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.

<sup>4</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Attachment A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>5</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXR\Jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2025\_Proposed\_TG - ACTUAL



and peak hour trip generation estimates. Table 2 presents the passenger-car-equivalent (PCE) trip generation rates for the PA1 High-Cube Warehouse & Truck/Trailer Lot with the resulting PCE daily and peak hour trip generation estimates under 2025 conditions.

As shown on Table 2, the PA1 High-Cube Warehouse & Truck/Trailer Lot is anticipated to generate a total of 5,570 PCE trip-ends per day with 295 AM peak hour PCE trips and 434 PM peak hour PCE trips.

For 2028 conditions, Table 3 shows the vehicle trip generation rates for Project Scenario 1, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. Table 4 presents the PCE daily and peak hour trip generation estimates with buildout of the Project Scenario 1. As shown on Table 4, Project Scenario 1 is anticipated to generate a total of 7,073 PCE trip-ends per day with 384 AM peak hour PCE trips and 547 PM peak hour PCE trips.

### **SCENARIO 2 (PA1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA2 RESIDENTIAL )**

For Scenario 2, trip-generation statistics published by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual, 11<sup>th</sup> Edition (2021) for ITE land use code 156 (high-cube parcel hub warehouse) has been utilized.

For the Truck/Trailer Parking Lot land use, similar to Scenario 1, trip generation estimates for the proposed lot have been developed using data collected at two other facilities with operations similar to the Project (see Attachment A).

Refinements to the raw trip generation estimates for the high-cube parcel hub warehouse have been made to provide a more detailed breakdown of trips by vehicle mix. Data regarding the vehicle mix has been obtained from the High Cube Warehouse Vehicle Trip Generation Analysis (ITE, October 2016). The South Coast Air Quality Management (SCAQMD) recommended truck mix for each type of warehouse use for each axle type is utilized for 2- axle, 3-axle, and 4+-axle trucks.

For 2025 conditions, Table 5 shows the vehicle trip generation rates for the PA1 Parcel Hub Warehouse & Truck/Trailer Lot, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. Table 6 presents the PCE trip generation rates for the PA1 Parcel Hub Warehouse & Truck/Trailer Lot, with the resulting PCE daily and peak hour trip generation estimates. As shown on Table 6, the PA1 Parcel Hub Warehouse & Truck/Trailer Lot is anticipated to generate a total of 9,026 PCE trip-ends per day with 1,114 AM peak hour PCE trips and 1,016 PM peak hour PCE trips.

For 2028 conditions, Table 7 shows the vehicle trip generation rates for Project Scenario 2, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. Table 8 presents the PCE daily and peak hour trip generation estimates with buildout of the Project Scenario 2. As shown on Table 8, the Project Scenario 2 is anticipated

**TABLE 2: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.150	0.045	0.195	0.075	0.190	0.265	3.409
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489
		2 to 4-Axle+ Trucks (PCE = 3.0)	0.084	0.025	0.109	0.042	0.108	0.150	1.920
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Warehouse	--	982.232 TSF							
	- Passenger Cars			64	20	84	32	81	113	1,463
	- Truck Trips (PCE = 3.0)			83	25	108	41	106	147	1,886
	High Cube Parcel Warehouse Subtotal			147	45	192	73	187	260	3,349
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
	- Truck Trips									
	2-axle (PCE = 1.5):			3	0	3	4	9	13	162
	3-axle (PCE = 2.0):			10	41	51	18	12	30	562
	4+axle (3.0):			15	24	39	85	23	108	1,188
- Net Truck Trips (PCE)			28	65	93	107	44	151	1,912	
Truck/Trailer Parking Lot Subtotal			30	73	103	118	56	174	2,221	
Passenger Cars Subtotal			66	28	94	43	93	136	1,772	
Truck Trips Subtotal			111	90	201	148	150	298	3,798	
<b>OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (PCE)<sup>5</sup></b>				<b>177</b>	<b>118</b>	<b>295</b>	<b>191</b>	<b>243</b>	<b>434</b>	<b>5,570</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Source: *TUMF High-Cube Warehouse Trip Generation Study*. Prepared by WSP, January 2019.

Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship

Truck Daily Rate Source: *Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center*.

Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.

<sup>4</sup> Source: Trip generation rates developed from empirical data summarized on Table 1.1 of Attachment A (trips divided by acreage). Rates shown are the average between the 2 sites.

<sup>5</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2025\_Proposed\_TG - PCE

**TABLE 3: INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.094	0.028	0.122	0.046	0.119	0.165	2.129	
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489	
		2 to 4-Axle+ Trucks	0.028	0.008	0.036	0.014	0.036	0.050	0.640	
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.71	
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079	
		2-Axle Trucks	0.080	0.000	0.080	0.111	0.222	0.333	4.207	
		3-Axle Trucks	0.190	0.793	0.983	0.349	0.238	0.587	10.968	
		4-Axle+ Trucks	0.190	0.318	0.508	1.111	0.301	1.412	15.460	
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74	

Trip Generation Results												
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily		
				In	Out	Total	In	Out	Total			
1	High-Cube Warehouse	--	982.232 TSF									
	- Passenger Cars			64	20	84	32	81	113	1,463		
	- Truck Trips (Actual)			28	8	36	14	35	49	629		
	High Cube Parcel Warehouse Subtotal			92	28	120	46	116	162	2,092		
	Truck/Trailer Parking Lot			--	25.62 AC							
	- Passenger Cars					2	8	10	11	12	23	309
	- Truck Trips											
	2-axle:					2	0	2	3	6	9	108
	3-axle:					5	20	25	9	6	15	281
	4+axle:					5	8	13	28	8	36	396
- Net Truck Trips (Actual Vehicles)	12	28	40			40	20	60	785			
Truck/Trailer Parking Lot Subtotal	14	36	50			51	32	83	1,094			
Passenger Cars Subtotal	66	28	94			43	93	136	1,772			
Truck Trips Subtotal	40	36	76			54	55	109	1,414			
<b>Planning Area 1 Subtotal (Actual Vehicles)<sup>5</sup></b>			<b>106</b>	<b>64</b>	<b>170</b>	<b>97</b>	<b>148</b>	<b>245</b>	<b>3,186</b>			
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503		
<b>INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL) TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>				<b>128</b>	<b>131</b>	<b>259</b>	<b>168</b>	<b>190</b>	<b>358</b>	<b>4,689</b>		

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).  
<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres  
<sup>3</sup> Source: *TUMF High-Cube Warehouse Trip Generation Study*. Prepared by WSP, January 2019.  
 Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship  
 Truck Daily Rate Source: *Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center*.  
 Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.  
<sup>4</sup> Source: *Tentative Parcel Map No. 37862, Lots 1 to 6 - Access Evaluation*. Prepared by Urban Crossroads, Inc., September 2021.  
<sup>5</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).  
 F:\URR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2028\_Proposed\_TG - ACTUAL

**TABLE 4: INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)  
TRIP GENERATION SUMMARY  
PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>									
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.150	0.045	0.195	0.075	0.190	0.265	3.409
		Passenger Cars	0.066	0.020	0.086	0.033	0.082	0.115	1.489
		2 to 4-Axle+ Trucks (PCE = 3.0)	0.084	0.025	0.109	0.042	0.108	0.150	1.920
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Trip Generation Results												
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily		
				In	Out	Total	In	Out	Total			
1	High-Cube Warehouse	--	982.232 TSF									
	- Passenger Cars			64	20	84	32	81	113	1,463		
	- Truck Trips (PCE = 3.0)			83	25	108	41	106	147	1,886		
	High Cube Parcel Warehouse Subtotal			147	45	192	73	187	260	3,349		
	Truck/Trailer Parking Lot			--	25.62 AC							
	- Passenger Cars					2	8	10	11	12	23	309
	- Truck Trips											
	2-axle (PCE = 1.5):					3	0	3	4	9	13	162
	3-axle (PCE = 2.0):					10	41	51	18	12	30	562
	4+axle (3.0):			15	24	39	85	23	108	1,188		
- Net Truck Trips (PCE)	28	65	93	107	44	151	1,912					
Truck/Trailer Parking Lot Subtotal	30	73	103	118	56	174	2,221					
Passenger Cars Subtotal	66	28	94	43	93	136	1,772					
Truck Trips Subtotal	111	90	201	148	150	298	3,798					
<b>Planning Area 1 Subtotal (PCE)<sup>5</sup></b>			<b>177</b>	<b>118</b>	<b>295</b>	<b>191</b>	<b>243</b>	<b>434</b>	<b>5,570</b>			
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503		
<b>INTERIM YEAR (2028) SCENARIO 1 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL) TOTAL EXTERNAL TRIPS (PCE)</b>				<b>199</b>	<b>185</b>	<b>384</b>	<b>262</b>	<b>285</b>	<b>547</b>	<b>7,073</b>		

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).  
<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres  
<sup>3</sup> Source: *TUMF High-Cube Warehouse Trip Generation Study*. Prepared by WSP, January 2019.  
 Passenger and Truck AM/PM peak hour (in/out) splits are estimated from based on ITE peak-to-daily relationship  
 Truck Daily Rate Source: *Notice of Preparation of a Draft Environmental Impact Report for the Proposed Potrero Logistics Center*.  
 Prepared by South Coast Air Quality Management District (SCAQMD), June 2020.  
<sup>4</sup> Source: *Tentative Parcel Map No. 37862, Lots 1 to 6 - Access Evaluation*. Prepared by Urban Crossroads, Inc., September 2021.  
<sup>5</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).  
 F:\URR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2028\_Proposed\_TG - PCE

**TABLE 5: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.350	0.350	0.700	0.435	0.205	0.640	4.630	
Passenger Cars (69.2% AM, 78.3% PM, 67.8% Daily)			0.242	0.243	0.485	0.341	0.161	0.502	3.139	
2-Axle Trucks (5.10% AM, 3.70% PM, 5.40% Daily)			0.018	0.018	0.036	0.016	0.007	0.023	0.250	
3-Axle Trucks (6.40% AM, 4.60% PM, 6.70% Daily)			0.022	0.022	0.045	0.020	0.009	0.029	0.309	
4-Axle+ Trucks (19.30% AM, 13.40% PM, 20.10% Daily)			0.067	0.067	0.134	0.059	0.028	0.087	0.933	
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.714	
Passenger Cars			0.080	0.302	0.382	0.429	0.461	0.890	12.079	
2-Axle Trucks			0.080	0.000	0.080	0.111	0.222	0.333	4.207	
3-Axle Trucks			0.190	0.793	0.983	0.349	0.238	0.587	10.968	
4-Axle+ Trucks			0.190	0.318	0.508	1.111	0.301	1.412	15.460	

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF							
	- Passenger Cars			238	239	477	335	158	493	3,083
	- Truck Trips									
	<i>Truck Trips (2-axle):</i>			18	18	36	15	7	22	246
	<i>Truck Trips (3-axle):</i>			22	22	44	20	9	29	303
	<i>Truck Trips (4+-axle):</i>			65	66	131	58	28	86	917
	- Net Truck Trips (Actual Vehicles)			105	106	211	93	44	137	1,466
	High Cube Parcel Warehouse Subtotal			343	345	688	428	202	630	4,549
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
	- Truck Trips									
	<i>2-axle:</i>			2	0	2	3	6	9	108
	<i>3-axle:</i>			5	20	25	9	6	15	281
	<i>4+-axle:</i>			5	8	13	28	8	36	396
- Net Truck Trips (Actual Vehicles)			12	28	40	40	20	60	785	
Truck/Trailer Parking Lot Subtotal			14	36	50	51	32	83	1,094	
Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
Truck Trips Subtotal			117	134	251	133	64	197	2,251	
<b>OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>				<b>357</b>	<b>381</b>	<b>738</b>	<b>479</b>	<b>234</b>	<b>713</b>	<b>5,643</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).  
<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres  
<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Handbook, Third Edition (September 2017).  
<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE), High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).  
<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).  
 Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks  
<sup>6</sup> Source: Tentative Parcel Map No. 37862, Lots 1 to 6 - Access Evaluation. Prepared by Urban Crossroads, Inc., September 2021.  
<sup>7</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).  
 F:\UXRjobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2025\_HC Parcel Hub\_TG - ACTUAL

**TABLE 6: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT  
TRIP GENERATION SUMMARY  
PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.514	0.515	1.029	0.582	0.274	0.856	6.929	
		Passenger Cars	0.242	0.243	0.485	0.341	0.161	0.502	3.139	
		2-Axle Trucks (PCE = 1.5)	0.027	0.027	0.054	0.024	0.011	0.035	0.375	
		3-Axle Trucks (PCE = 2.0)	0.044	0.044	0.088	0.040	0.018	0.058	0.616	
		4-Axle+ Trucks (PCE = 3.0)	0.201	0.201	0.402	0.177	0.084	0.261	2.799	
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706	
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079	
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311	
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936	
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380	

Trip Generation Results											
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
				In	Out	Total	In	Out	Total		
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF								
	- Passenger Cars			238	239	477	335	158	493	3,083	
	- Truck Trips										
				<i>Truck Trips (2-axle):</i>	27	27	54	24	11	35	368
				<i>Truck Trips (3-axle):</i>	43	43	86	39	18	57	605
				<i>Truck Trips (4+-axle):</i>	197	197	394	174	83	257	2,749
				- Net Truck Trips (Actual Vehicles)	267	267	534	237	112	349	3,722
		High Cube Parcel Warehouse Subtotal			505	506	1,011	572	270	842	6,805
		Truck/Trailer Parking Lot	--	25.62 AC							
		- Passenger Cars			2	8	10	11	12	23	309
		- Truck Trips									
				<i>2-axle (PCE = 1.5):</i>	3	0	3	4	9	13	162
				<i>3-axle (PCE = 2.0):</i>	10	41	51	18	12	30	562
				<i>4+-axle (3.0):</i>	15	24	39	85	23	108	1,188
	- Net Truck Trips (PCE)			28	65	93	107	44	151	1,912	
	Truck/Trailer Parking Lot Subtotal			30	73	103	118	56	174	2,221	
	Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
	Truck Trips Subtotal			295	332	627	344	156	500	5,634	
	<b>OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT TOTAL EXTERNAL TRIPS (PCE)</b>			<b>535</b>	<b>579</b>	<b>1,114</b>	<b>690</b>	<b>326</b>	<b>1,016</b>	<b>9,026</b>	

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook Third Edition (September 2017).

<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).

<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

<sup>6</sup> Source: Tentative Parcel Map No. 37862, Lots 1 to 6 - Access Evaluation Prepared by Urban Crossroads, Inc., September 2021.

<sup>7</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2025\_HC Parcel Hub\_TG - PCE

**TABLE 7: INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)  
TRIP GENERATION SUMMARY  
ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.350	0.350	0.700	0.435	0.205	0.640	4.630	
Passenger Cars (69.2% AM, 78.3% PM, 67.8% Daily)			0.242	0.243	0.485	0.341	0.161	0.502	3.139	
2-Axle Trucks (5.10% AM, 3.70% PM, 5.40% Daily)			0.018	0.018	0.036	0.016	0.007	0.023	0.250	
3-Axle Trucks (6.40% AM, 4.60% PM, 6.70% Daily)			0.022	0.022	0.045	0.020	0.009	0.029	0.309	
4-Axle+ Trucks (19.30% AM, 13.40% PM, 20.10% Daily)			0.067	0.067	0.134	0.059	0.028	0.087	0.933	
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	0.540	1.413	1.953	2.000	1.222	3.222	42.714	
Passenger Cars			0.080	0.302	0.382	0.429	0.461	0.890	12.079	
2-Axle Trucks			0.080	0.000	0.080	0.111	0.222	0.333	4.207	
3-Axle Trucks			0.190	0.793	0.983	0.349	0.238	0.587	10.968	
4-Axle+ Trucks			0.190	0.318	0.508	1.111	0.301	1.412	15.460	
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74	

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF							
	- Passenger Cars			238	239	477	335	158	493	3,083
	- Truck Trips									
	Truck Trips (2-axle):			18	18	36	15	7	22	246
	Truck Trips (3-axle):			22	22	44	20	9	29	303
	Truck Trips (4+ axle):			65	66	131	58	28	86	917
	- Net Truck Trips (Actual Vehicles)			105	106	211	93	44	137	1,466
	High Cube Parcel Warehouse Subtotal			343	345	688	428	202	630	4,549
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
- Truck Trips										
2-axle:			2	0	2	3	6	9	108	
3-axle:			5	20	25	9	6	15	281	
4+ axle:			5	8	13	28	8	36	396	
- Net Truck Trips (Actual Vehicles)			12	28	40	40	20	60	785	
Truck/Trailer Parking Lot Subtotal			14	36	50	51	32	83	1,094	
Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
Truck Trips Subtotal			117	134	251	133	64	197	2,251	
<b>Planning Area 1 Subtotal (Actual Vehicles)<sup>7</sup></b>			<b>357</b>	<b>381</b>	<b>738</b>	<b>479</b>	<b>234</b>	<b>713</b>	<b>5,643</b>	
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503
<b>INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)</b>				<b>379</b>	<b>448</b>	<b>827</b>	<b>550</b>	<b>276</b>	<b>826</b>	<b>7,146</b>
<b>TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>										

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres

<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Handbook, Third Edition (September 2017).

<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE), High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).

<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

<sup>6</sup> Source: Tentative Parcel Map No. 37862, Lots 1 to 6 - Access Evaluation. Prepared by Urban Crossroads, Inc., September 2021.

<sup>7</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXR\jobs\_13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2028\_HC Parcel Hub\_TG - ACTUAL

**TABLE 8: INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)**  
**TRIP GENERATION SUMMARY**  
**PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>										
Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily	
			In	Out	Total	In	Out	Total		
High-Cube Parcel Hub Warehouse <sup>3,4,5</sup>	156	982.232 TSF	0.514	0.515	1.029	0.582	0.274	0.856	6.929	
		Passenger Cars	0.242	0.243	0.485	0.341	0.161	0.502	3.139	
		2-Axle Trucks (PCE = 1.5)	0.027	0.027	0.054	0.024	0.011	0.035	0.375	
		3-Axle Trucks (PCE = 2.0)	0.044	0.044	0.088	0.040	0.018	0.058	0.616	
		4-Axle+ Trucks (PCE = 3.0)	0.201	0.201	0.402	0.177	0.084	0.261	2.799	
Truck/Trailer Parking Lot <sup>6</sup>	--	25.62 AC	1.150	2.842	3.992	4.627	2.173	6.800	86.706	
		Passenger Cars	0.080	0.302	0.382	0.429	0.461	0.890	12.079	
		2-Axle Trucks (PCE = 1.5)	0.120	0.000	0.120	0.167	0.333	0.500	6.311	
		3-Axle Trucks (PCE = 2.0)	0.380	1.586	1.966	0.698	0.476	1.174	21.936	
		4-Axle+ Trucks (PCE = 3.0)	0.570	0.954	1.524	3.333	0.903	4.236	46.380	
Multi-Family Housing	220	223 DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74	

Trip Generation Results										
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1	High-Cube Parcel Hub Warehouse	156	982.232 TSF							
	- Passenger Cars			238	239	477	335	158	493	3,083
	- Truck Trips									
	Truck Trips (2-axle):			27	27	54	24	11	35	368
	Truck Trips (3-axle):			43	43	86	39	18	57	605
	Truck Trips (4+ axle):			197	197	394	174	83	257	2,749
	- Net Truck Trips (Actual Vehicles)			267	267	534	237	112	349	3,722
	High Cube Parcel Warehouse Subtotal			505	506	1,011	572	270	842	6,805
	Truck/Trailer Parking Lot	--	25.62 AC							
	- Passenger Cars			2	8	10	11	12	23	309
	- Truck Trips									
2-axle (PCE = 1.5):			3	0	3	4	9	13	162	
3-axle (PCE = 2.0):			10	41	51	18	12	30	562	
4+ axle (3.0):			15	24	39	85	23	108	1,188	
- Net Truck Trips (PCE)			28	65	93	107	44	151	1,912	
Truck/Trailer Parking Lot Subtotal			30	73	103	118	56	174	2,221	
Passenger Cars Subtotal			240	247	487	346	170	516	3,392	
Truck Trips Subtotal			295	332	627	344	156	500	5,634	
<b>Planning Area 1 Subtotal (PCE)<sup>7</sup></b>			<b>535</b>	<b>579</b>	<b>1,114</b>	<b>690</b>	<b>326</b>	<b>1,016</b>	<b>9,026</b>	
2	Multi-Family Housing	220	223 DU	22	67	89	71	42	113	1,503
<b>INTERIM YEAR (2028) SCENARIO 2 (PA 1 PARCEL HUB WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 RESIDENTIAL)</b>				<b>557</b>	<b>646</b>	<b>1,203</b>	<b>761</b>	<b>368</b>	<b>1,129</b>	<b>10,529</b>
<b>TOTAL EXTERNAL TRIPS (PCE)</b>										

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).  
<sup>2</sup> TSF = Thousand Square Feet; DU = Dwelling Units; AC = Acres  
<sup>3</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) Trip Generation Handbook, Third Edition (September 2017).  
<sup>4</sup> Vehicle Mix Source: Institute of Transportation Engineers (ITE) High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).  
<sup>5</sup> Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).  
 Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks  
<sup>6</sup> Source: Tentative Parcel Map No. 37862, Lots 1 to 6 - Access Evaluation. Prepared by Urban Crossroads, Inc., September 2021.  
<sup>7</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).  
 F:\UXR\jobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2028\_HC Parcel Hub\_TG - PCE



to generate a total of 10,529 PCE trip-ends per day with 1,203 AM peak hour PCE trips and 1,129 PM peak hour PCE trips.

### **SUNDAY MORNING SCENARIO 3 (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA2 CHURCH)**

For the Sunday morning analysis with Scenario 3, trip generation rates have been adjusted to reflect Sunday conditions instead of average weekday patterns.

For 2028 conditions, Table 9 shows the vehicle trip generation rates for the Sunday morning analysis with Scenario 3, as well as the vehicle trip generation summary with Sunday morning peak hour trip generation estimates. Table 10 presents the PCE trip generation rates for the Sunday morning with Scenario 3.

As shown on Table 10, the Project Scenario 3 is anticipated to generate a total of 699 Sunday morning peak hour PCE trips with PA2 developed as a church.

### **TRIP DISTRIBUTION & TRIP ASSIGNMENT**

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site.

For 2025 conditions, the trip distribution patterns for the four warehouse buildings and truck/trailer parking lot in PA 1 are shown on Exhibits 3 and 4, respectively.

For 2028 conditions, the trip distribution patterns for PA's 1 and 2 are shown on Exhibits 5 through 7.

For the Sunday morning analysis with PA 2 Church, the PA 2 Sunday morning trip distribution pattern is shown on Exhibit 8.

The 2025 Project Only peak hour volumes for the PA1 High-Cube Warehouse & Truck/Trailer Lot are shown on Exhibits 9 and 10.

The 2025 Project Only peak hour volumes for the PA1 Parcel Hub Warehouse & Truck/Trailer Lot are shown on Exhibits 11 and 12.

The 2028 Project Only peak hour volumes for buildout of Project Scenario 1 (PA1 High-Cube Warehouse & Truck/Trailer Lot, and PA2 Residential), are shown on Exhibits 13 and 14.

The 2028 Project Only peak hour volumes for project buildout with Scenario 2 (PA1 Parcel Hub Warehouse & Truck/Trailer Lot, and PA2 Residential), are shown on Exhibits 15 and 16.

The project buildout 2028 Sunday Morning Project Only peak hour volumes with Scenario 3 (PA2 developed as a church) are shown on Exhibit 17.

**TABLE 9: SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3  
(PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 CHURCH)  
TRIP GENERATION SUMMARY ACTUAL VEHICLES**

Trip Generation Rates <sup>1</sup>						
Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour			
			In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.028	0.009	0.037	
		Passenger Cars	0.020	0.006	0.026	
		2 to 4-Axle+ Trucks	0.008	0.003	0.011	
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.162	0.424	0.586	
		Passenger Cars	0.024	0.091	0.115	
		2-Axle Trucks	0.024	0.000	0.024	
		3-Axle Trucks	0.057	0.238	0.295	
		4-Axle+ Trucks	0.057	0.095	0.152	
Church	560	1,200 SEATS	0.25	0.26	0.51	

Trip Generation Results						
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour		
				In	Out	Total
1	High-Cube Warehouse	--	982.232 TSF	19	6	25
	- Passenger Cars			8	2	10
	- Truck Trips (Actual)					
	High Cube Parcel Warehouse Subtotal			27	8	35
	Truck/Trailer Parking Lot	--	25.62 AC			
	- Passenger Cars			1	2	3
	- Truck Trips					
	2-axle:			1	0	1
	3-axle:			1	6	7
	4+-axle:			1	2	3
- Net Truck Trips (Actual Vehicles)			3	8	11	
Truck/Trailer Parking Lot Subtotal			4	10	14	
Passenger Cars Subtotal			20	8	28	
Truck Trips Subtotal			11	10	21	
<b>Planning Area 1 Subtotal (Actual Vehicles)<sup>5</sup></b>			<b>31</b>	<b>18</b>	<b>49</b>	
2	Church	560	1,200 SEATS	300	312	612
<b>SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 CHURCH) TOTAL EXTERNAL TRIPS (ACTUAL VEHICLES)</b>				<b>331</b>	<b>330</b>	<b>661</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

<sup>2</sup> TSF = Thousand Square Feet; AC = Acres

<sup>3</sup> Sunday rates for warehouse use have been estimated based on weekday rates to reflect Sunday conditions.

<sup>4</sup> Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

F:\UXRjobs\13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2028\_Proposed+Church - ACTUAL

**TABLE 10: SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3  
(PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT, AND PA 2 CHURCH)  
TRIP GENERATION SUMMARY PASSENGER CAR EQUIVALENT (PCE)**

Trip Generation Rates <sup>1</sup>						
Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour			
			In	Out	Total	
High-Cube Warehouse <sup>3</sup>	--	982.232 TSF	0.045	0.013	0.058	
		Passenger Cars	0.020	0.006	0.026	
		2 to 4-Axle+ Trucks (PCE = 3.0)	0.025	0.007	0.032	
Truck/Trailer Parking Lot <sup>4</sup>	--	25.62 AC	0.345	0.853	1.198	
		Passenger Cars	0.024	0.091	0.115	
		2-Axle Trucks (PCE = 1.5)	0.036	0.000	0.036	
		3-Axle Trucks (PCE = 2.0)	0.114	0.476	0.590	
		4-Axle+ Trucks (PCE = 3.0)	0.171	0.286	0.457	
Church	560	1,200 SEATS	0.25	0.26	0.51	

Trip Generation Results						
Planning Area	Land Use	ITE LU Code	Quantity <sup>2</sup>	Sunday Peak Hour		
				In	Out	Total
1	High-Cube Warehouse	--	982.232 TSF			
	- Passenger Cars			19	6	25
	- Net Truck Trips (Actual Vehicles)			25	7	32
	High Cube Parcel Warehouse Subtotal			44	13	57
	Truck/Trailer Parking Lot	--	25.62 AC			
	- Passenger Cars			1	2	3
	- Truck Trips					
	2-axle (PCE = 1.5):			1	0	1
	3-axle (PCE = 2.0):			3	12	15
	4+-axle (3.0):			4	7	11
- Net Truck Trips (PCE)			8	19	27	
Truck/Trailer Parking Lot Subtotal			9	21	30	
Passenger Cars Subtotal			20	8	28	
Truck Trips Subtotal			33	26	59	
<b>Planning Area 1 Subtotal (PCE)<sup>5</sup></b>			<b>53</b>	<b>34</b>	<b>87</b>	
2	Church	560	1,200 SEATS	300	312	612
<b>SUNDAY MORNING INTERIM YEAR (2028) SCENARIO 3 (PA 1 HIGH-CUBE WAREHOUSE &amp; TRUCK/TRAILER LOT, AND PA 2 CHURCH) TOTAL EXTERNAL TRIPS (PCE)</b>				<b>353</b>	<b>346</b>	<b>699</b>

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

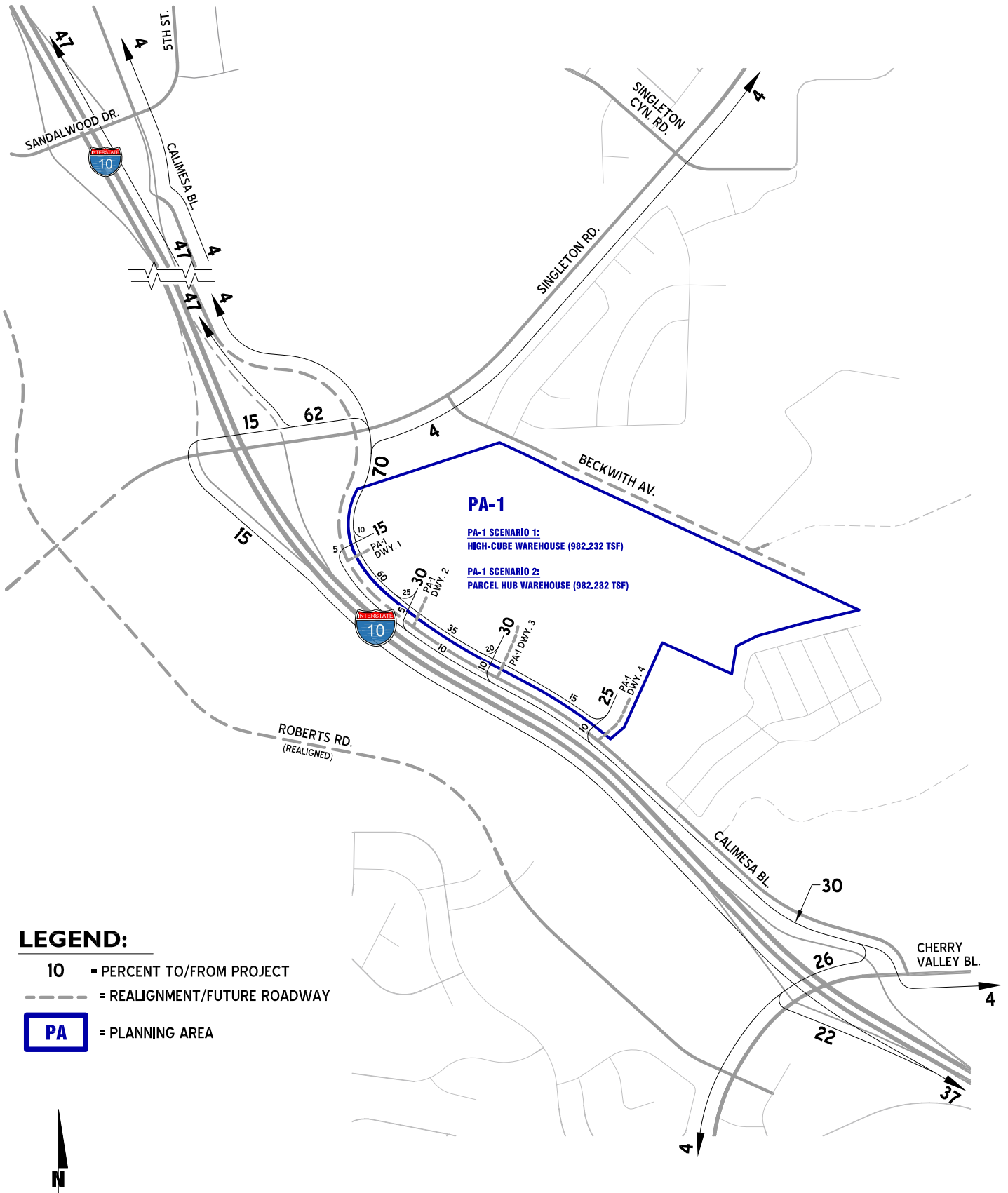
<sup>2</sup> TSF = Thousand Square Feet; AC = Acres

<sup>3</sup> Sunday rates for warehouse use have been estimated based on weekday rates to reflect Sunday conditions.

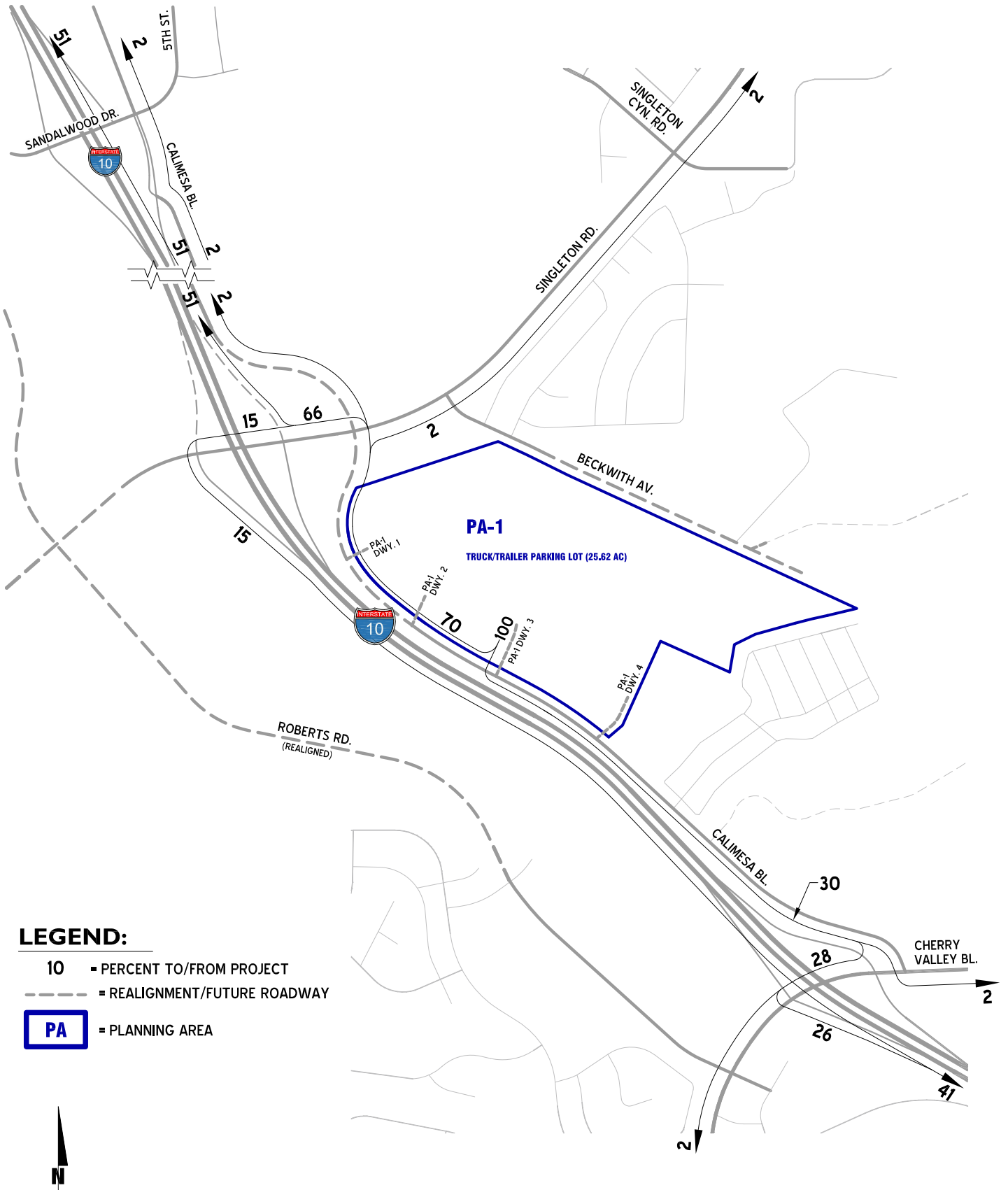
<sup>4</sup> Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (Passenger Car Equivalent).

F:\UXRjobs\_13100\_13500\13594\02\_LOS\Excel\13594 - Scope.xlsx\2028\_Proposed+Church - PCE

**EXHIBIT 3: 2025 WAREHOUSE (PA-1) PROJECT TRIP DISTRIBUTION**

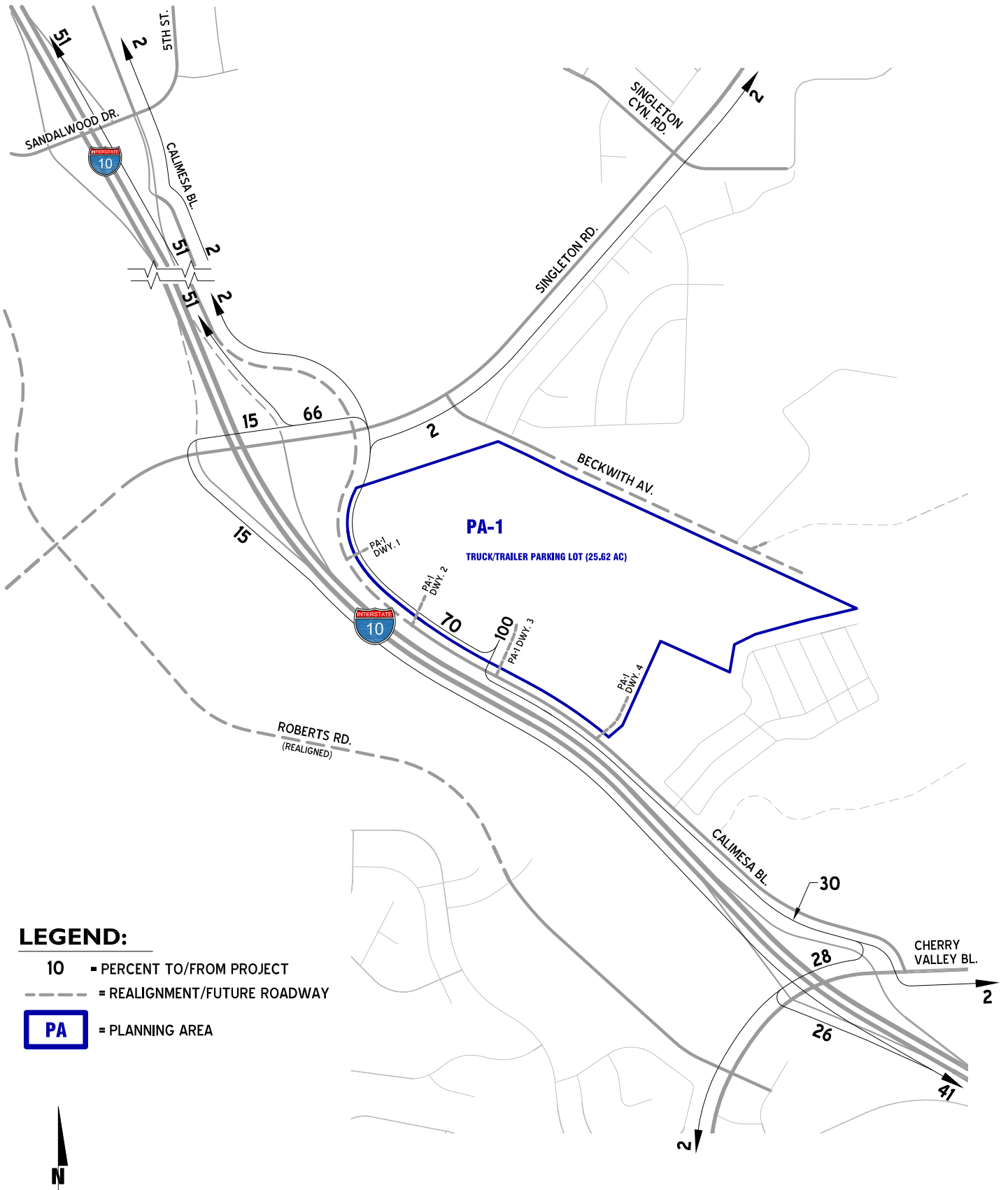


**EXHIBIT 4: 2025 TRUCK/TRAILER PARKING LOT (PA-1) PROJECT TRIP DISTRIBUTION**

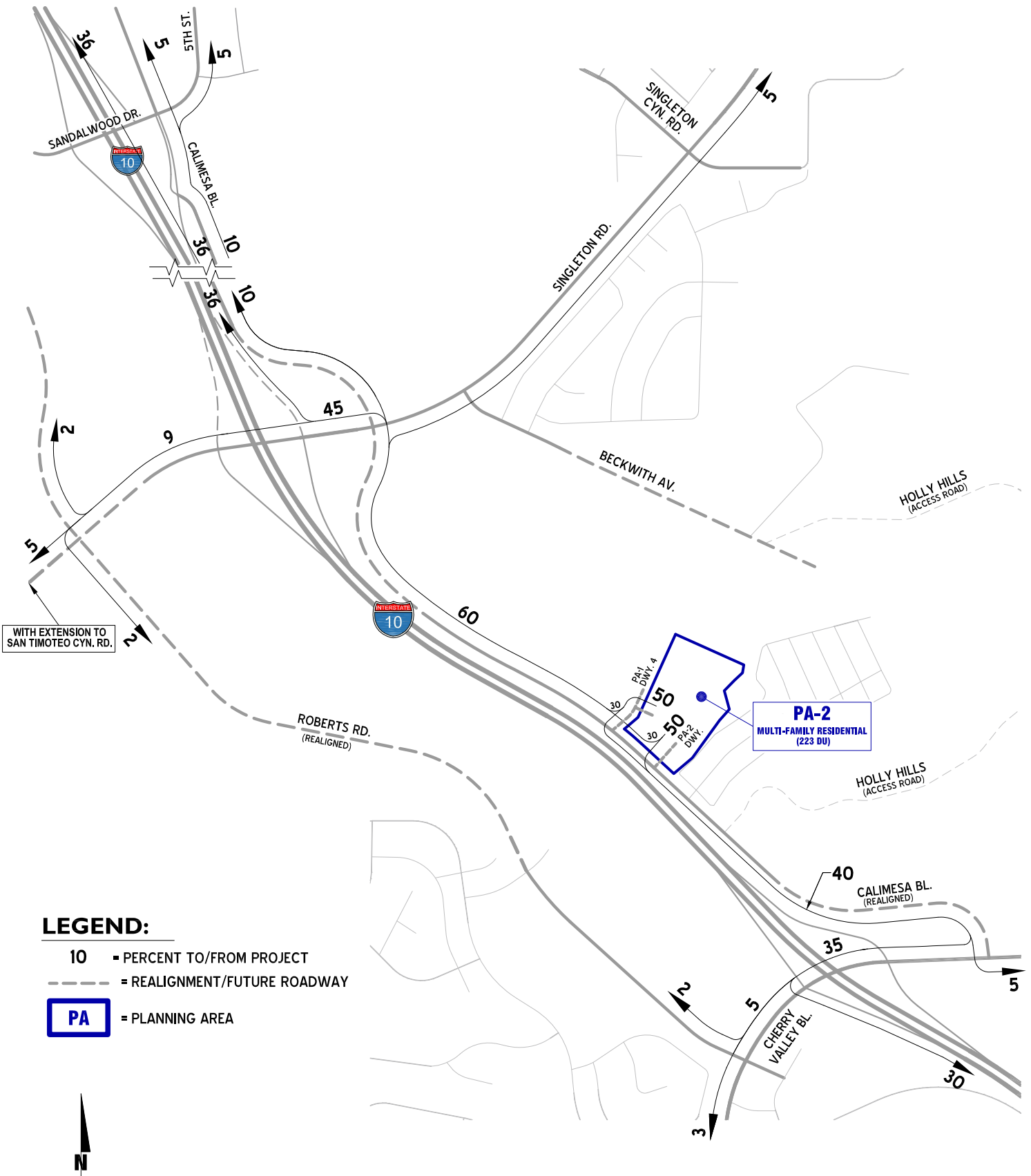




**EXHIBIT 6: 2028 TRUCK/TRAILER PARKING LOT (PA-1) PROJECT TRIP DISTRIBUTION**

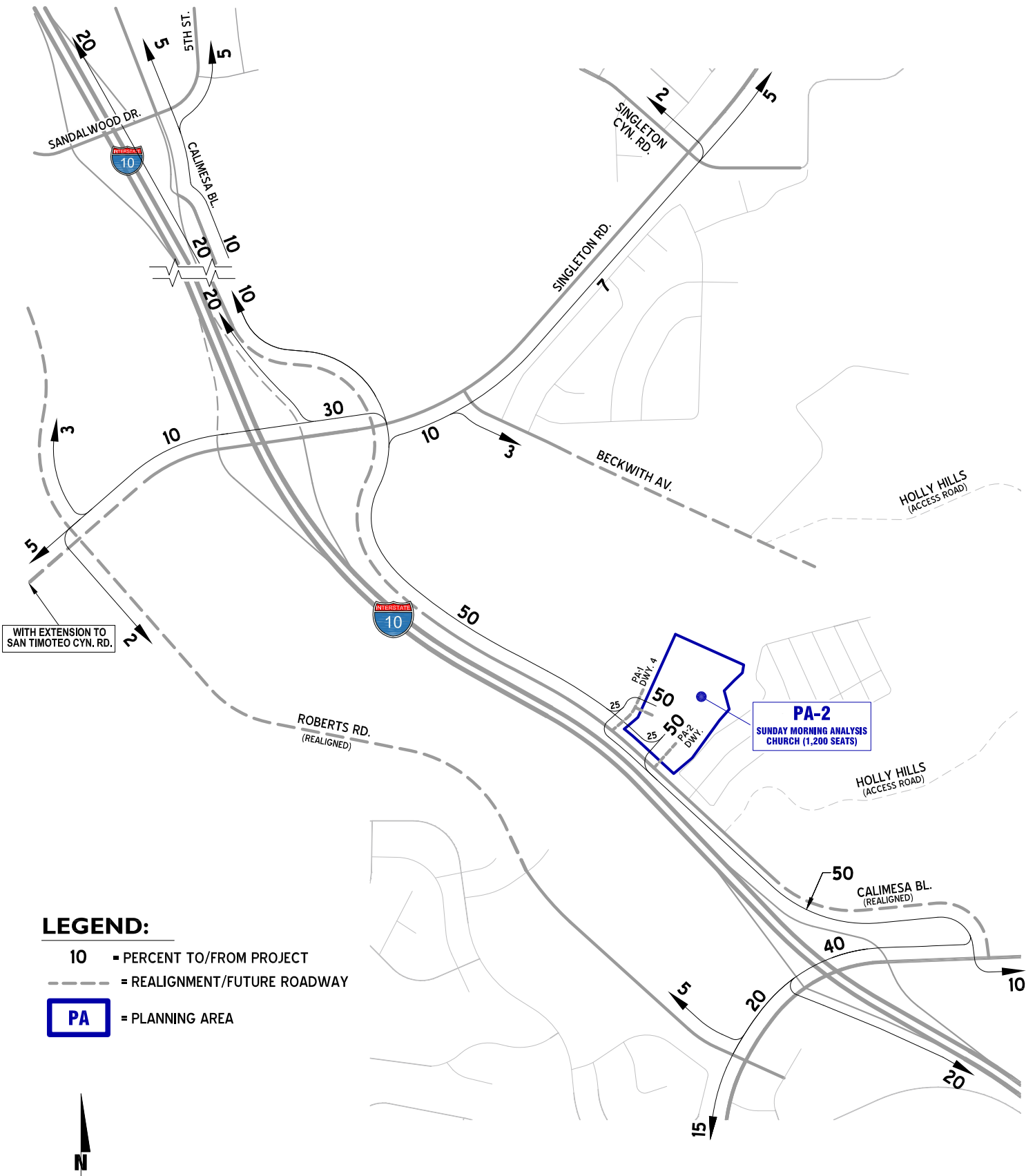


**EXHIBIT 7: 2028 MULTI-FAMILY RESIDENTIAL (PA-2) PROJECT TRIP DISTRIBUTION**





**EXHIBIT 8: 2028 SUNDAY MORNING WITH CHURCH (PA-2) PROJECT TRIP DISTRIBUTION**



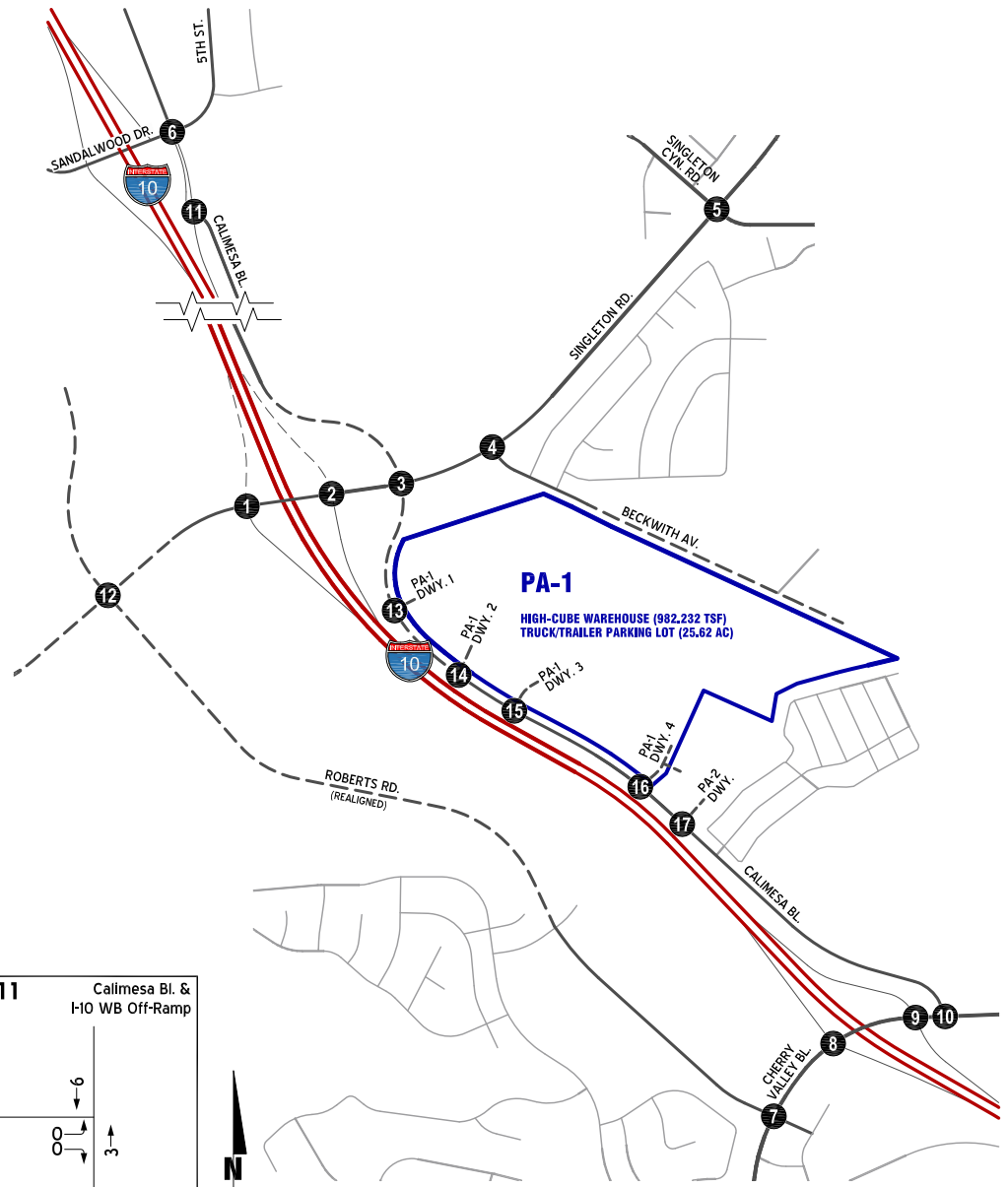
**LEGEND:**

- 10 = PERCENT TO/FROM PROJECT
- - - = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA



**EXHIBIT 9: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>	

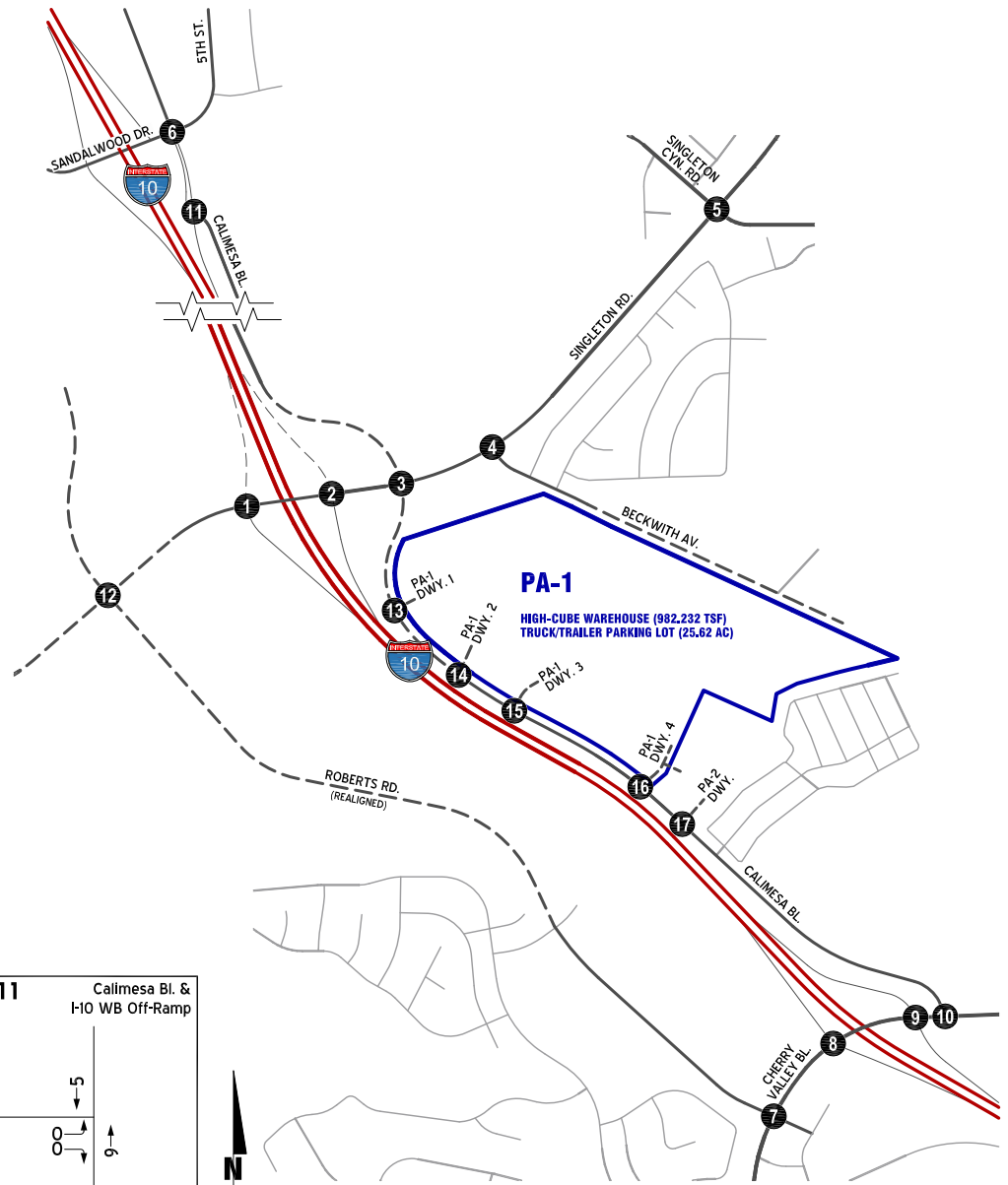


**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

**EXHIBIT 10: OPENING YEAR (2025) WITH PA 1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

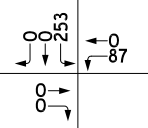
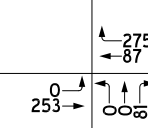
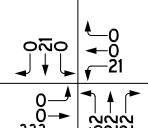
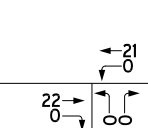
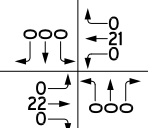
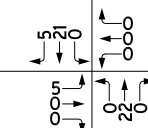
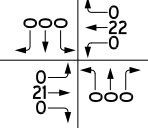
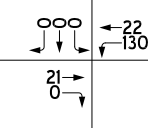
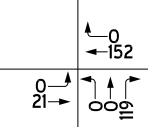
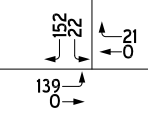
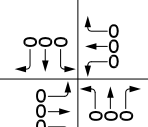
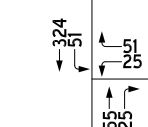
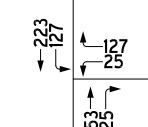
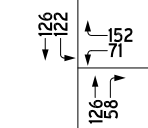
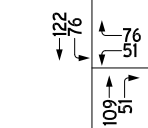
<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>	

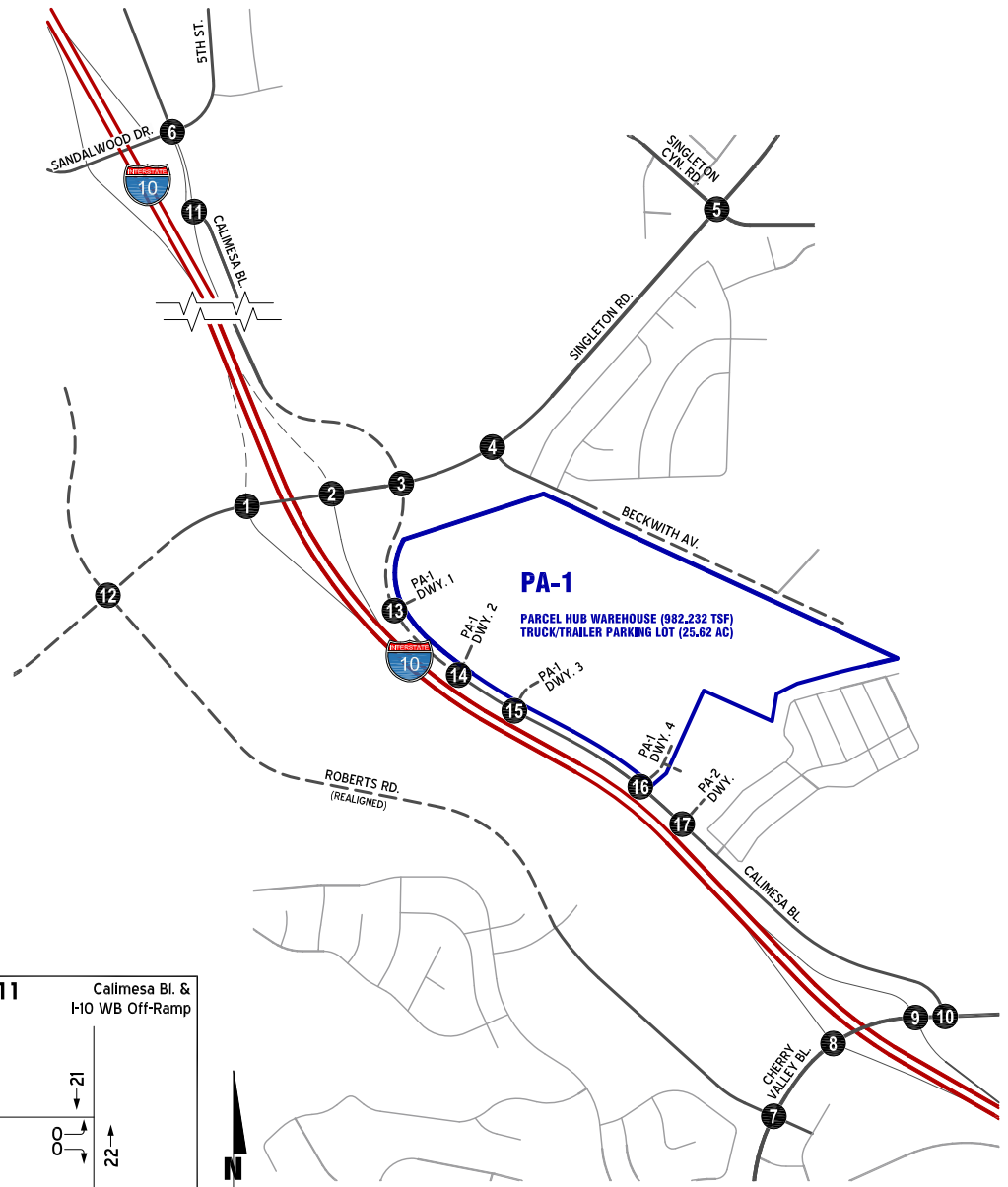


**LEGEND:**




- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

**EXHIBIT 11: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p> 	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p> 	
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p> 	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p> 	
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p> 	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p> 	
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p> 	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p> 	
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p> 	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p> 	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p> 	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p> 	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p> 
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p> 	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p> 	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>

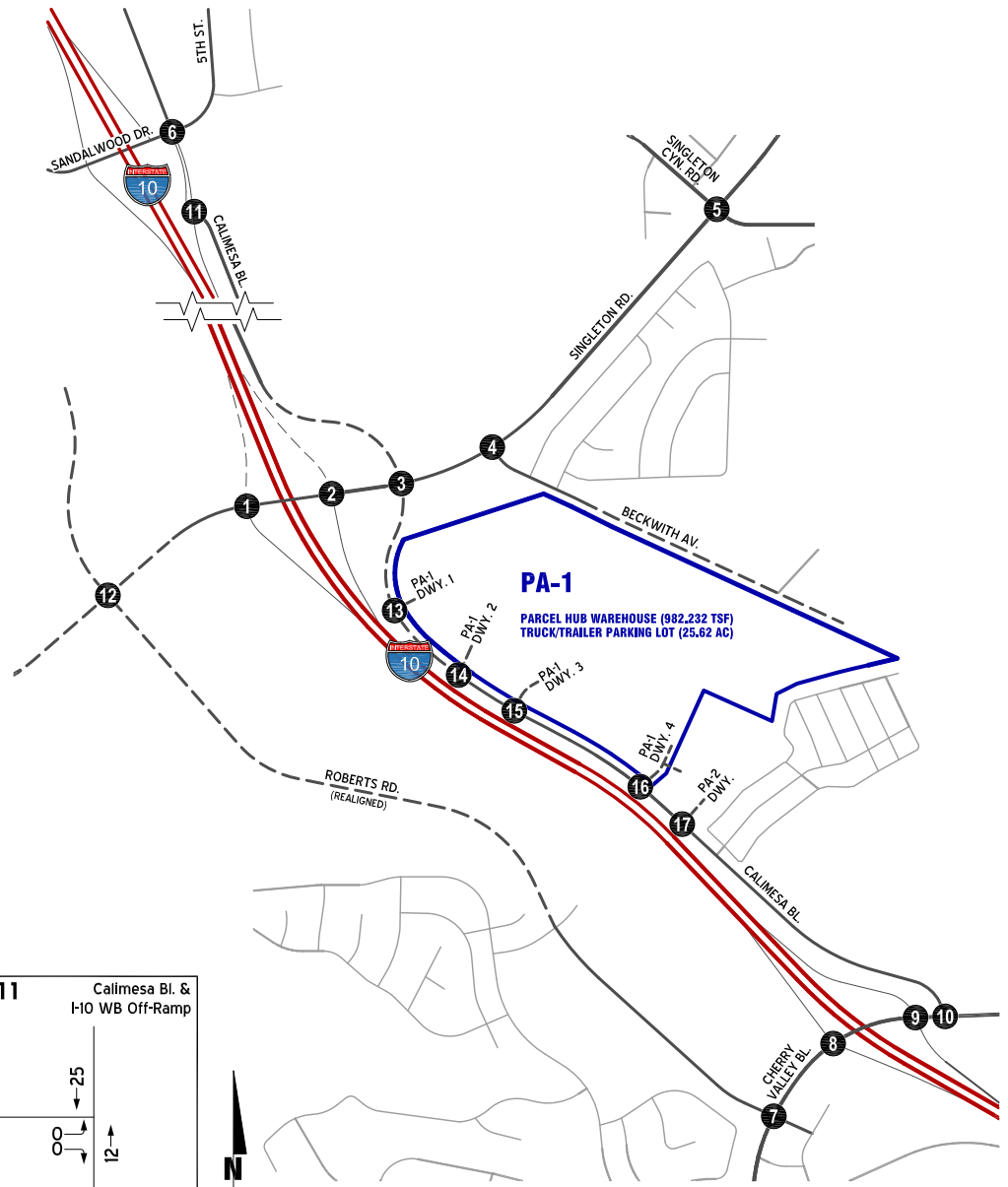


**LEGEND:**

-  = INTERSECTION ID
-  = REALIGNMENT/FUTURE ROADWAY
-  = PLANNING AREA

**EXHIBIT 12: OPENING YEAR (2025) WITH PA 1, PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
	<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
	<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p> <p><b>FUTURE INTERSECTION</b></p>

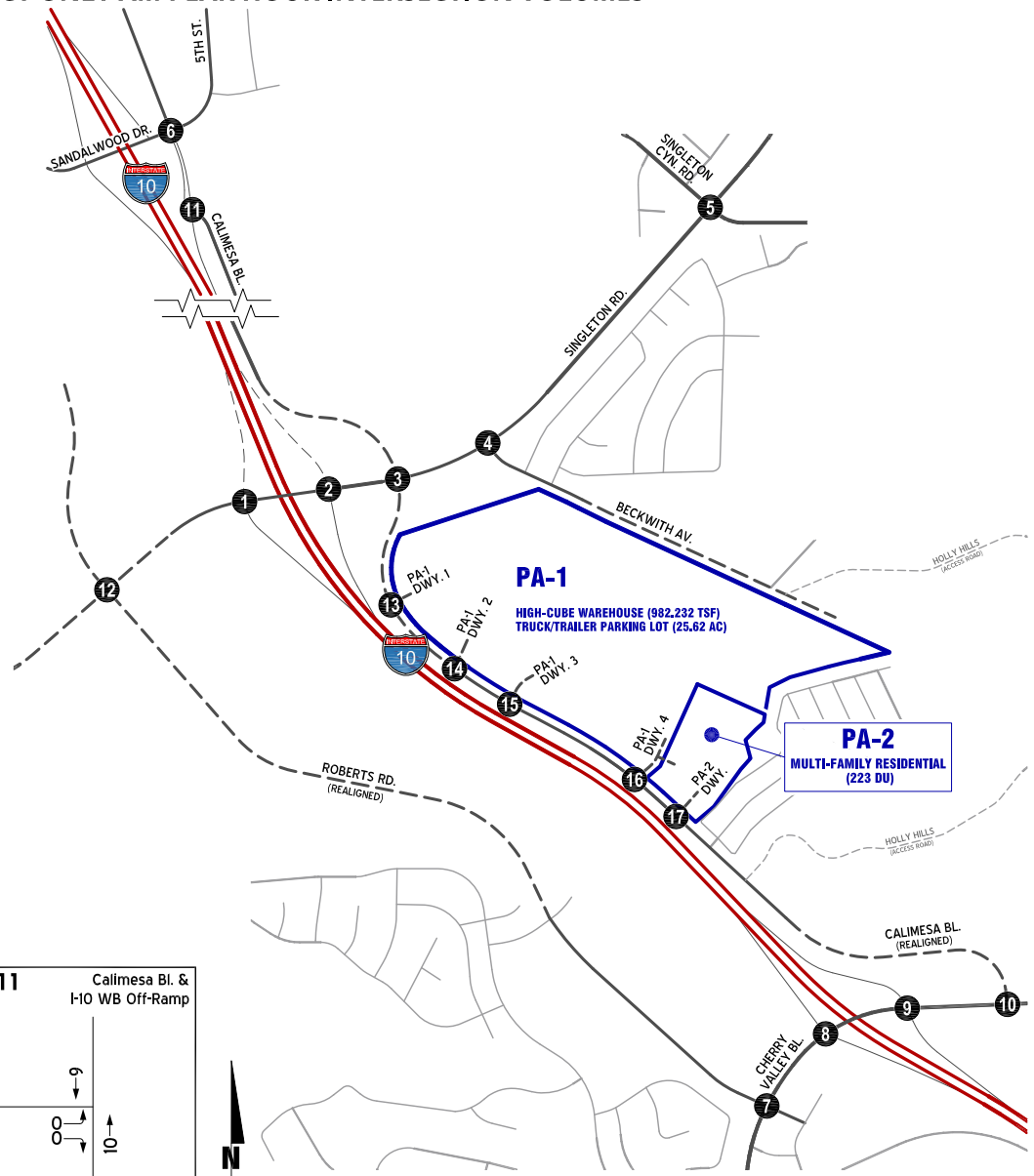


**LEGEND:**

- 18 = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- PA = PLANNING AREA

**EXHIBIT 13: INTERIM YEAR (2028) SCENARIO 1  
(PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<b>1</b> I-10 EB Ramps & Singleton Rd. 	<b>2</b> I-10 WB Ramps & Singleton Rd. 
<b>3</b> Calimesa Bl. & Singleton Rd. 	<b>4</b> Beckwith Av. & Singleton Rd. 
<b>5</b> Singleton Cyn. Rd. & Singleton Rd. 	<b>6</b> Calimesa Bl. & Sandalwood Dr. 
<b>7</b> Roberts Rd. & Cherry Valley Bl. 	<b>8</b> I-10 EB Ramps & Cherry Valley Bl. 
<b>9</b> I-10 WB Ramps & Cherry Valley Bl. 	<b>10</b> Calimesa Bl. & Cherry Valley Bl. 
<b>11</b> Calimesa Bl. & I-10 WB Off-Ramp 	
<b>12</b> Roberts Rd. & Singleton Rd. 	<b>13</b> Calimesa Bl. & PA-1 Dwy. 1 
<b>14</b> Calimesa Bl. & PA-1 Dwy. 2 	
<b>15</b> Calimesa Bl. & PA-1 Dwy. 3 	<b>16</b> Calimesa Bl. & PA-1 Dwy. 4 
<b>17</b> Calimesa Bl. & PA-2 Dwy. 	

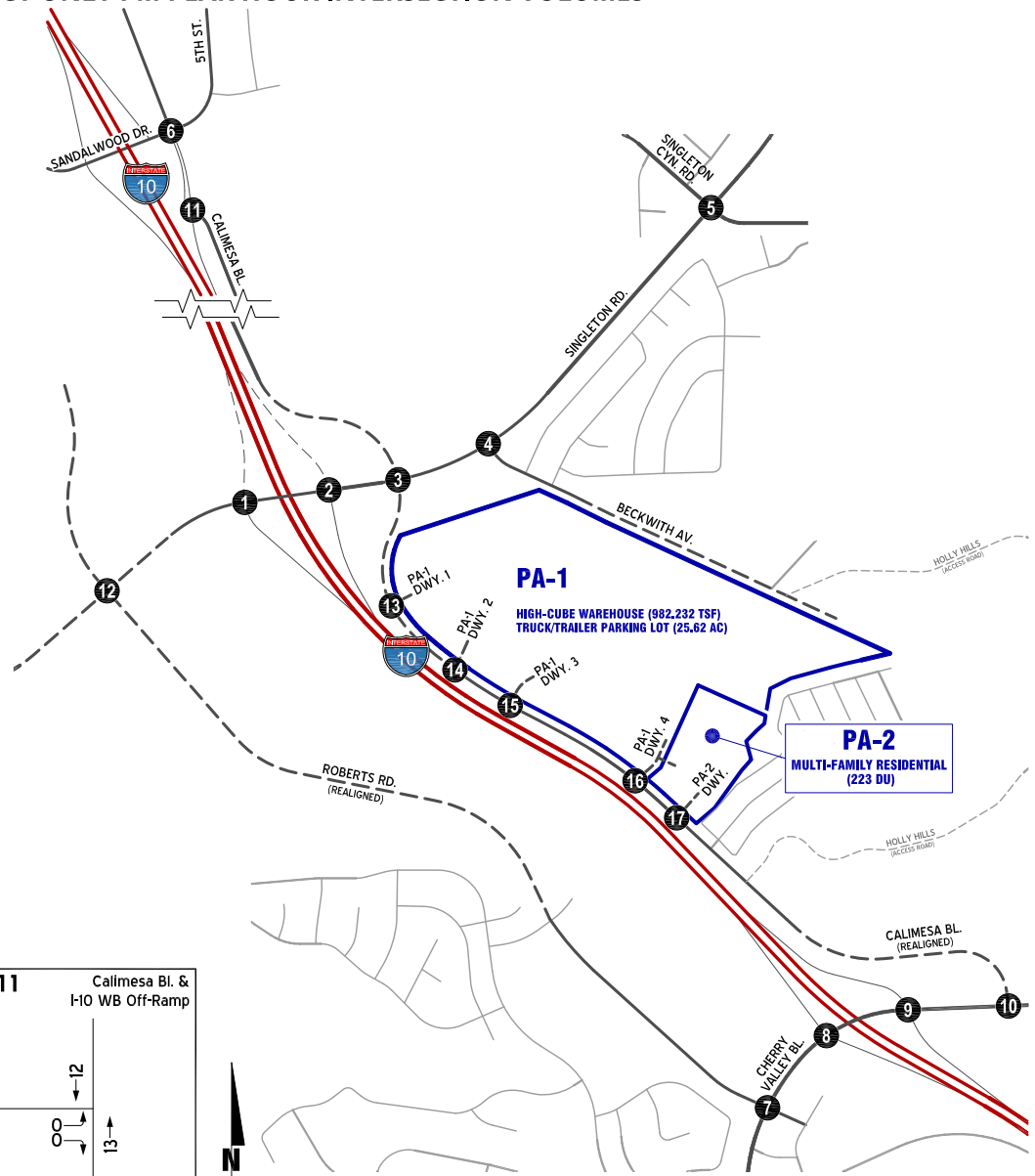


**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

**EXHIBIT 14: INTERIM YEAR (2028) SCENARIO 1  
(PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	



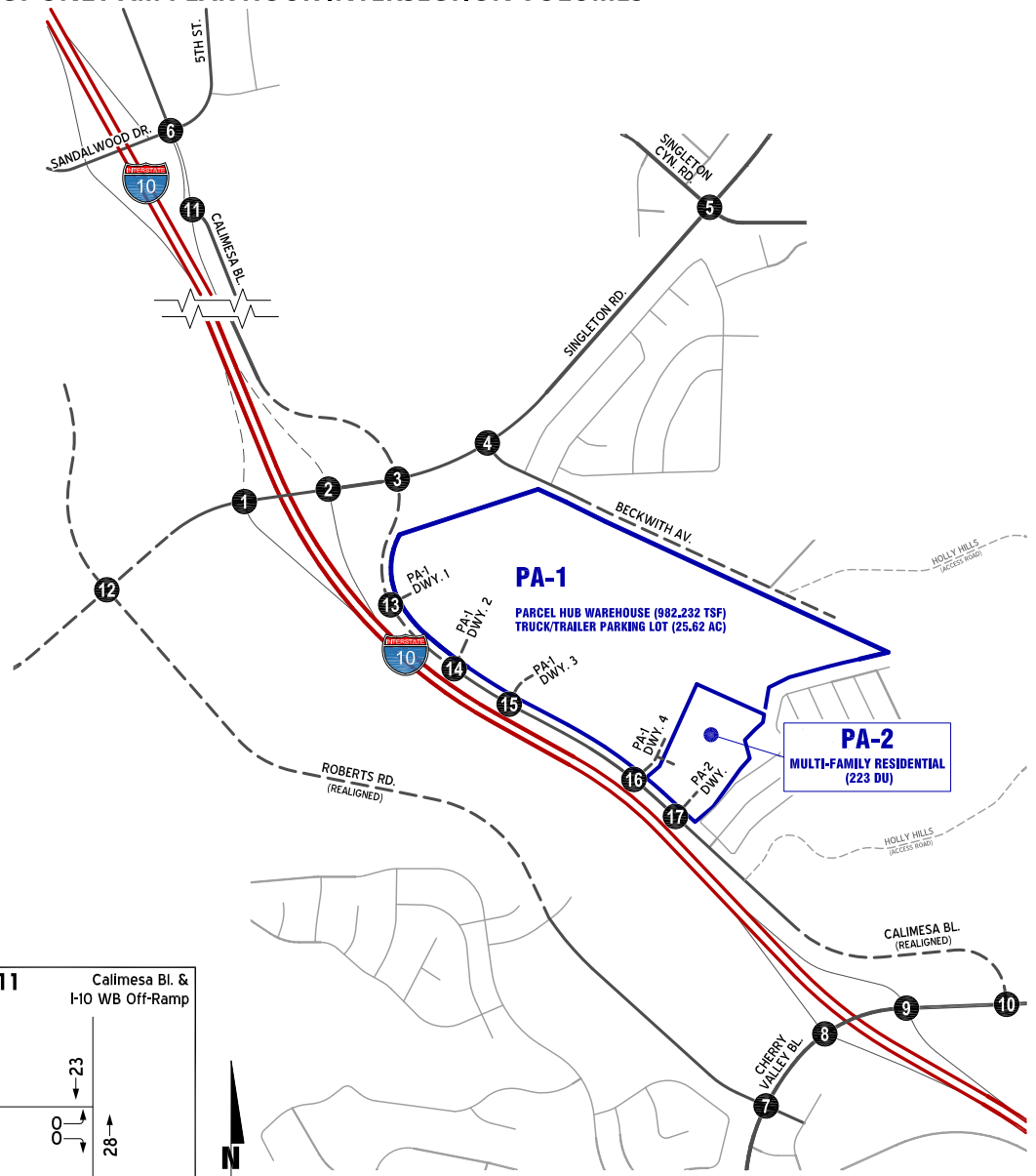
**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA



**EXHIBIT 15: INTERIM YEAR (2028) SCENARIO 2  
(PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	



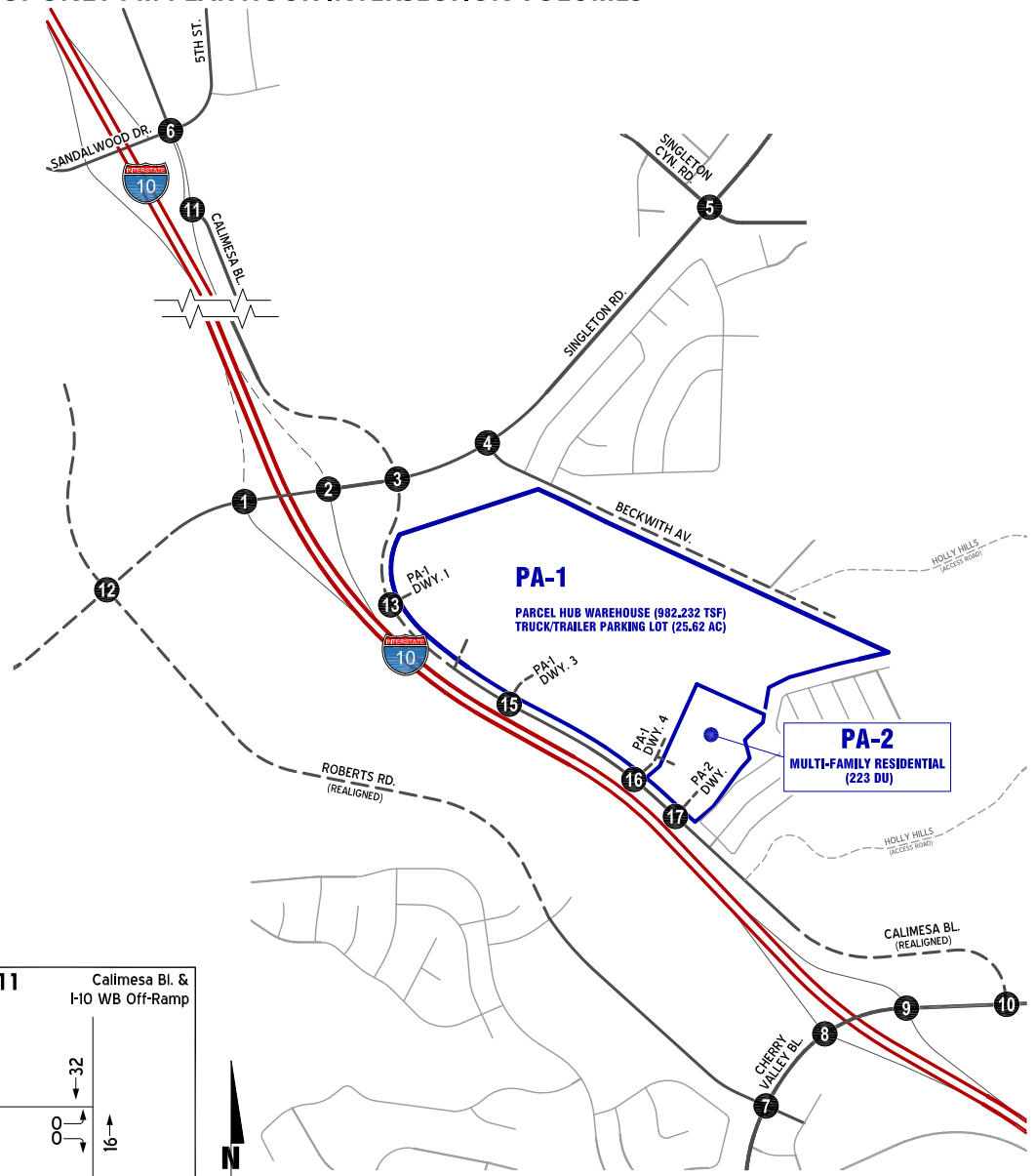
**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA



**EXHIBIT 16: INTERIM YEAR (2028) SCENARIO 2  
(PA 1 PARCEL HUB WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 RESIDENTIAL),  
PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	

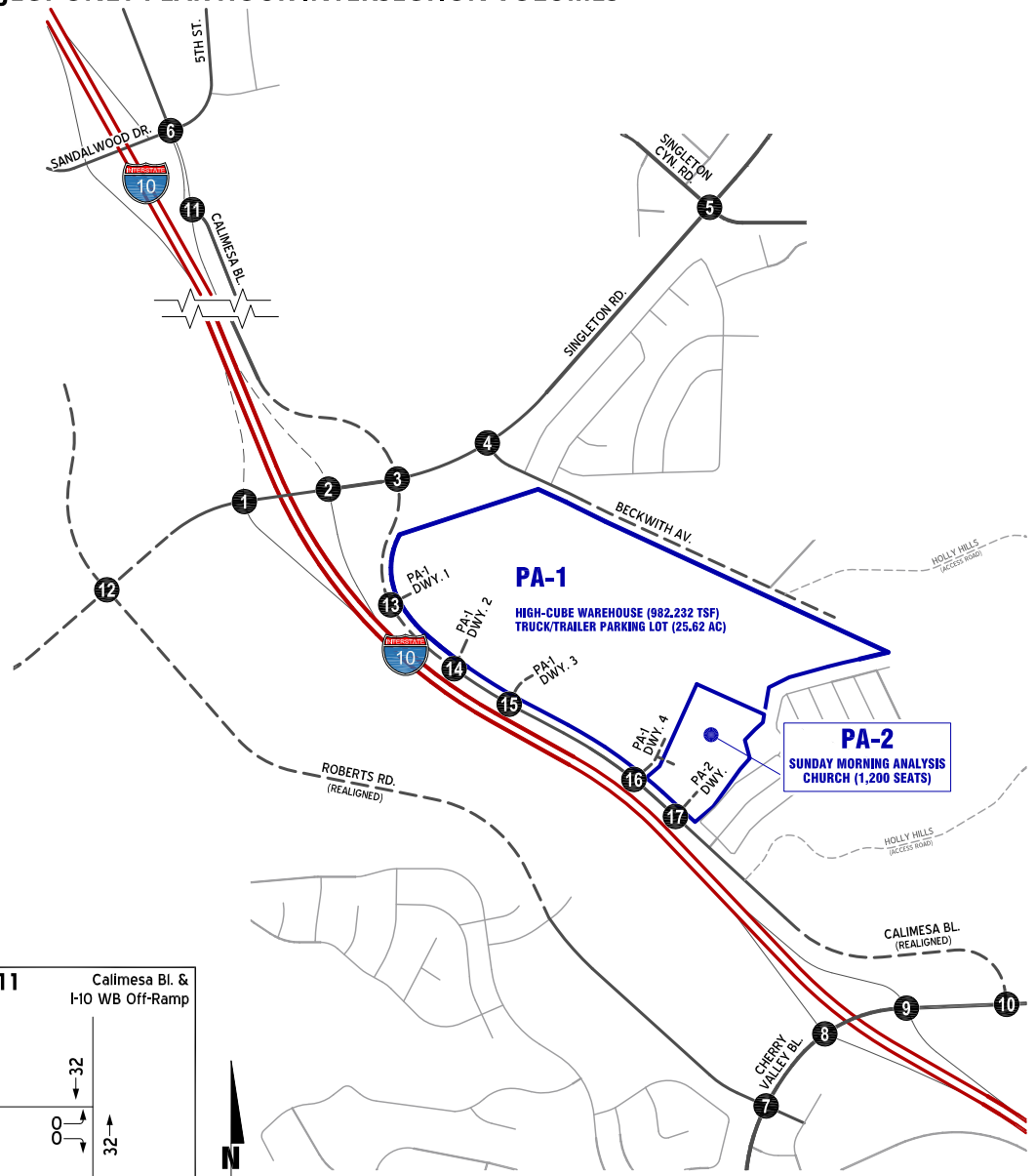


**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

**EXHIBIT 17: SUNDAY MORNING ANALYSIS SCENARIO 3,  
(PA 1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER PARKING LOT, AND PA 2 CHURCH),  
PROJECT ONLY PEAK HOUR INTERSECTION VOLUMES**

<p><b>1</b> I-10 EB Ramps &amp; Singleton Rd.</p>	<p><b>2</b> I-10 WB Ramps &amp; Singleton Rd.</p>
<p><b>3</b> Calimesa Bl. &amp; Singleton Rd.</p>	<p><b>4</b> Beckwith Av. &amp; Singleton Rd.</p>
<p><b>5</b> Singleton Cyn. Rd. &amp; Singleton Rd.</p>	<p><b>6</b> Calimesa Bl. &amp; Sandalwood Dr.</p>
<p><b>7</b> Roberts Rd. &amp; Cherry Valley Bl.</p>	<p><b>8</b> I-10 EB Ramps &amp; Cherry Valley Bl.</p>
<p><b>9</b> I-10 WB Ramps &amp; Cherry Valley Bl.</p>	<p><b>10</b> Calimesa Bl. &amp; Cherry Valley Bl.</p>
<p><b>11</b> Calimesa Bl. &amp; I-10 WB Off-Ramp</p>	
<p><b>12</b> Roberts Rd. &amp; Singleton Rd.</p>	<p><b>13</b> Calimesa Bl. &amp; PA-1 Dwy. 1</p>
<p><b>14</b> Calimesa Bl. &amp; PA-1 Dwy. 2</p>	
<p><b>15</b> Calimesa Bl. &amp; PA-1 Dwy. 3</p>	<p><b>16</b> Calimesa Bl. &amp; PA-1 Dwy. 4</p>
<p><b>17</b> Calimesa Bl. &amp; PA-2 Dwy.</p>	



**LEGEND:**

- = INTERSECTION ID
- = REALIGNMENT/FUTURE ROADWAY
- = PLANNING AREA

## **INTERSECTION ANALYSIS METHODOLOGY**

For the purposes of this analysis, signalized and unsignalized intersection operations analysis will be based on the methodology described in the Highway Capacity Manual (6<sup>th</sup> Edition). Intersections of “Collector” to “Collector or Higher Classification” to which the Project contributes 50 or more peak hour trips are included as part of the study area.

## **TRAFFIC COUNTS**

Traffic counts were collected mid-week (Tuesday, Wednesday or Thursday) during May 2022, during the AM peak period of 7:00 AM to 9:00 AM and PM peak period of 4:00 PM to 6:00 PM. For purposes of the PA2 church analysis, traffic counts were also collected on Sunday May 22 morning between 8:30am and 12:30pm.

## **LEVEL OF SERVICE (LOS) CRITERIA**

According to the City of Calimesa, LOS C is the minimum acceptable condition that should be maintained during the peak commute hours. However, a peak hour LOS of D, or lower, may be allowed on City-maintained roadway segments in commercial and employment areas or any combination of major highways, urban arterials, secondary highways, or freeway ramp intersections.

## **CUMULATIVE DEVELOPMENT PROJECTS**

The cumulative development projects in the study area are shown on Exhibit 18 and listed on Table 11. Development phasing information presented in the various Oak Valley Town Center and Summerwind traffic analyses has been incorporated in the Table 11 background cumulative land use summary.

## **FEE PROGRAM – OPEN ITEM**

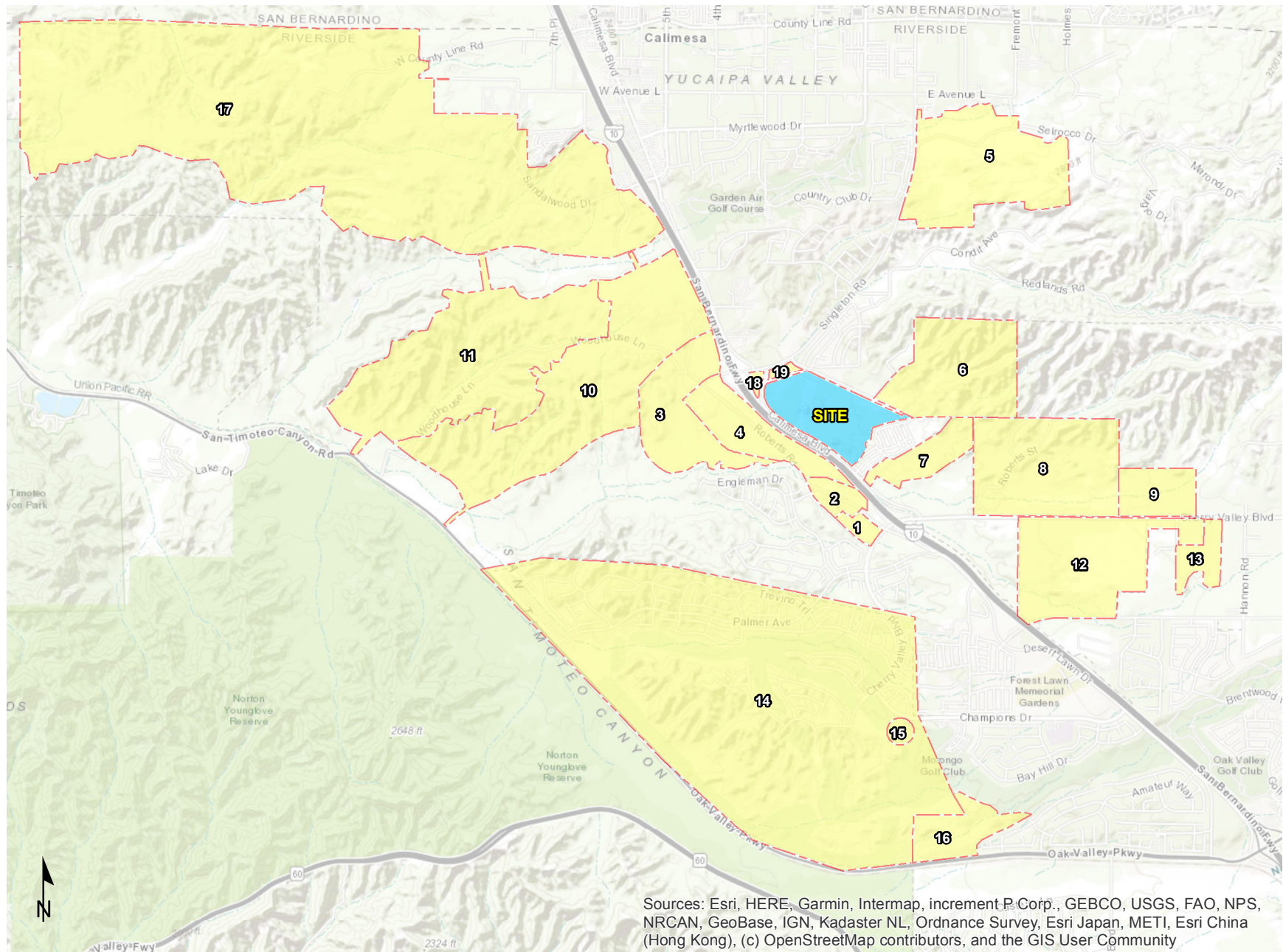
It is requested that the City provide a list of facilities that are included in the City’s DIF program.

## **SPECIAL ISSUES**

The following issues will also be addressed as part of the TIA:

- Traffic Signal Warrant Analysis: Signal warrant analysis will be prepared for all unsignalized study area intersections that allow for full access (no traffic signal warrants to be performed for restricted access locations due to infeasibility of installing a signal at these types of locations).

EXHIBIT 18: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP





**TABLE 11: CUMULATIVE DEVELOPMENT LAND USE SUMMARY**

#	Project	Land Use	2025 Quantity <sup>1</sup>	2028 Quantity <sup>1</sup>	2045 Quantity <sup>1</sup>
1	Calimesa II	Health/Fitness Club	20.000 TSF	20.000 TSF	20.000 TSF
		Clinic	12.00 TSF	12.00 TSF	12.00 TSF
		Animal Hospital/Veterinary Clinic	9.90 TSF	9.90 TSF	9.90 TSF
		Medical-Dental Office	5.00 TSF	5.00 TSF	5.00 TSF
		Shopping Center (>150k)	8.50 TSF	8.50 TSF	8.50 TSF
		High Turnover (Sit-Down) Restaurant	8.50 TSF	8.50 TSF	8.50 TSF
		Fast-Food Restaurant w/ Drive-Through Window	7.50 TSF	7.50 TSF	7.50 TSF
		Super Convenience Market/Gas Station	16.00 VFP	16.00 VFP	16.00 VFP
2	Summerwind Commons II	Single Family Detached	168 DU	168.0 DU	168.0 DU
3	Oak Valley Town Center	High Cube Warehouse	2,250.000 TSF	2,250.000 TSF	2,250.000 TSF
		Truck/trailer Parking Lot	10.07 AC	10.07 AC	10.07 AC
4	Oak Valley Town Commercial	Commercial Retail	--	200.00 TSF	751.800 TSF
5	JP Ranch (Tract No. 30387)	Single Family Residential	--	345 DU	689 DU
		Shopping Center	--	36.00 SF	72.70 SF
6	Holly Hills (within RIVCOM TAZ 140)	Single Family Detached	--	520 DU	1,039 DU
		Multifamily Housing (Low-Rise)	--	133 DU	266 DU
		Parks/Recreation	--	6.0 AC	11.6 AC
7	Holly Hills (within RIVCOM TAZ 143)	Single Family Detached	--	235 DU	470 DU
		Multifamily Housing (Low-Rise)	--	237 DU	473 DU
		Parks/Recreation	--	5.0 AC	10.3 AC
8	I-10 Gateway	High-Cube Warehouse	960.00 TSF	1,600.00 TSF	2,560.00 TSF
9	Borstein Property	Single Family Residential	209 DU	209 DU	209 DU
10	Summerwind Trails (Phases 2 & 3)	Single Family Residential	--	1,747 DU	1,747 DU
		Single Family Residential - Attached	--	411 DU	411 DU
		Parks	--	25.6 AC	25.6 AC
11	Summerwind Trails (Phases 4 & 5)	Single Family Residential	--	--	790 DU
		Parks	--	--	29.5 AC
12	Sunny-Cal Specific Plan	Single Family Residential	571 DU	571 DU	571 DU
13	Beaumont Tract 31966	Single Family Residential	60 DU	60 DU	60 DU
14	Fairway Canyon SCPGA	Single Family Residential	500 DU	1,000 DU	1,650 DU
15	Beyond Beaumont Commercial	Shopping Center	6,580 TSF	6,580 TSF	6,580 TSF
16	Tournament Hills 3, TM 36307	Single Family Residential	279 DU	279 DU	279 DU
17	Mesa Verde	Single Family Residential	--	--	3,465 DU
		Multifamily Housing	--	--	523 DU
		Active Park	--	--	57.5 AC
		Recreational Community Center	--	--	16 TSF
		Elementary School	--	--	1,200 STU
		Shopping Center	--	--	200 TSF
18	Oak Valley Commercial 1 (SWC of Calimesa Bl./Singleton Rd.)	Shopping Center	--	64.0 TSF	64.0 TSF
19	Oak Valley Commercial 2 (SEC of Calimesa Bl./Singleton Rd.)	Shopping Center	--	128.1 TSF	128.1 TSF

<sup>1</sup> AC = Acres; DU = Dwelling Units; RM = Rooms; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

- Simulation Progression Analysis: Provide simulation AM and PM peak hour progression analysis using SimTraffic for the project driveways to determine pocket storage lengths needed to accommodate 95<sup>th</sup> percentile queues.
- Queueing: Queuing will be provided for all study area intersections with a movement operating at LOS E or LOS F.
- Improvements: Based on the traffic analysis results, the TA will indicate new improvement requirements, timing of those improvements, and fair share contribution for the proposed Project.
- Vehicle Miles Traveled (VMT): VMT analysis will be conducted in accordance with City guidelines. VMT analysis will be prepared and provided under separate cover.

## CONCLUSION

Urban Crossroads, Inc. is pleased to submit this letter updating the previously approved TA scope in order to address the revised site plan for the Project. This letter documents the Project trip generation, trip distribution and assignment, analysis scenarios and the recommended intersection analysis locations for the Oak Valley North Specific Plan Traffic Analysis. Given the prior technical discussions, review, and consensus regarding traffic study parameters, we would appreciate timely approval of this revised scope.

If you have any questions, please contact Marlie at (714) 585-0574 or John at (949) 375-2435.

Respectfully submitted,

URBAN CROSSROADS, INC.



John Kain  
Principal



Marlie Whiteman, P.E.  
Senior Associate

Attachments

## ATTACHMENT A: EMPIRICAL DATA

**TABLE 1.1: EXISTING EMPIRICAL DATA & TRIP GENERATION RATE ESTIMATES  
TRUCK/TRAILER PARKING LOT**

EMPIRICAL DATA									
#	Truck/Trailer Parking Lot Site	Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
1	San Bernardino w/ 130 spaces (1935 5th Street, San Bernardino) Count Date: Feb 8, 2022 (fully operational at time of counts)	6.3 AC							
	Passenger Cars:		1	1	2	4	3	7	99
	2-axle Trucks:		1	0	1	0	0	0	4
	3-axle Trucks		1	3	4	3	3	6	85
	4+-axle Trucks		1	4	5	7	1	8	115
	Total Trucks (Actual Vehicles):		3	7	10	10	4	14	204
	Total Trips (Actual Vehicles)		4	8	12	14	7	21	303
	Trip Rate / AC		0.635	1.270	1.905	2.222	1.111	3.333	48.095
	Passenger Cars:		0.159	0.159	0.318	0.635	0.476	1.111	15.714
	2-axle Trucks:		0.159	0.000	0.159	0.000	0.000	0.000	0.635
3-axle Trucks		0.159	0.476	0.635	0.476	0.476	0.952	13.492	
4+-axle Trucks		0.158	0.635	0.793	1.111	0.159	1.270	18.254	
2	Perris w/ 160 spaces (5087 Patterson Avenue, Perris ) Count Date: January 23, 2019	4.5 AC							
	Passenger Cars:		0	2	2	1	2	3	38
	2-axle Trucks:		0	0	0	1	2	3	35
	3-axle Trucks		1	5	6	1	0	1	38
	4+-axle Trucks		1	0	1	5	2	7	57
	Total Trucks (Actual Vehicles):		2	5	7	7	4	11	130
	Total Trips (Actual Vehicles)		2	7	9	8	6	14	168
	Trip Rate / AC		0.444	1.556	2.000	1.778	1.333	3.111	37.333
	Passenger Cars:		0.000	0.445	0.445	0.223	0.445	0.668	8.444
	2-axle Trucks:		0.000	0.000	0.000	0.222	0.444	0.666	7.778
3-axle Trucks		0.222	1.111	1.333	0.222	0.000	0.222	8.444	
4+-axle Trucks		0.222	0.000	0.222	1.111	0.444	1.555	12.667	

AVERAGE TRIP RATES									
Land Use	Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily	
		In	Out	Total	In	Out	Total		
<b>TRUCK/TRAILER PARKING LOT</b>									
<b>Average Trip Rate (Actual Vehicles)</b>	<b>AC</b>	<b>0.540</b>	<b>1.413</b>	<b>1.953</b>	<b>2.000</b>	<b>1.222</b>	<b>3.222</b>	<b>42.714</b>	
Passenger Cars:		0.080	0.302	0.382	0.429	0.461	0.890	12.079	
2-axle Trucks:		0.080	0.000	0.080	0.111	0.222	0.333	4.207	
3-axle Trucks		0.190	0.793	0.983	0.349	0.238	0.587	10.968	
4+-axle Trucks		0.190	0.318	0.508	1.111	0.301	1.412	15.460	
<b>Average Trip Rate (PCE)</b>	<b>AC</b>	<b>1.150</b>	<b>2.842</b>	<b>3.992</b>	<b>4.627</b>	<b>2.173</b>	<b>6.800</b>	<b>86.706</b>	
Passenger Cars:		0.080	0.302	0.382	0.429	0.461	0.890	12.079	
2-axle Trucks (PCE = 1.5):		0.120	0.000	0.120	0.167	0.333	0.500	6.311	
3-axle Trucks (PCE = 2.0):		0.380	1.586	1.966	0.698	0.476	1.174	21.936	
4+-axle Trucks (PCE = 3.0):		0.570	0.954	1.524	3.333	0.903	4.236	46.380	

<sup>1</sup> AC = Acres





City: San Bernardino  
 Location: 1935 5th Street  
 Date: 2/8/2022  
 Count Type: 24 Hour Classified Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	1	1
0:15	0	0	1	0	1
0:30	0	0	0	0	0
0:45	0	0	0	2	2
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	2	0	0	0	2
2:00	0	0	1	0	1
2:15	1	0	2	0	3
2:30	1	0	0	1	2
2:45	0	0	0	0	0
3:00	0	0	0	0	0
3:15	0	0	0	2	2
3:30	0	0	0	0	0
3:45	1	0	0	1	2
4:00	1	0	1	0	2
4:15	2	0	0	0	2
4:30	3	0	1	0	4
4:45	2	0	1	1	4
5:00	4	0	0	1	5
5:15	0	0	0	1	1
5:30	1	0	0	0	1
5:45	3	0	1	1	5
6:00	1	0	1	0	2
6:15	0	0	0	0	0
6:30	1	0	0	1	2
6:45	2	0	0	0	2
7:00	1	0	0	0	1
7:15	0	0	0	0	0
7:30	0	1	1	0	2
7:45	0	0	0	1	1
8:00	0	0	0	0	0
8:15	0	0	1	0	1
8:30	0	0	0	0	0
8:45	0	0	0	0	0
9:00	0	0	0	2	2
9:15	0	0	0	1	1
9:30	0	0	0	0	0
9:45	1	0	0	1	2
10:00	0	0	2	0	2
10:15	0	0	0	0	0
10:30	0	0	0	0	0
10:45	0	0	0	2	2
11:00	0	0	0	0	0
11:15	0	0	1	0	1
11:30	0	0	1	0	1
11:45	0	0	1	1	2

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	1	0	0	0	1
1:00	0	0	1	0	1
1:15	1	0	0	0	1
1:30	0	0	0	0	0
1:45	1	0	2	0	3
2:00	0	0	0	1	1
2:15	0	0	1	0	1
2:30	0	0	0	2	2
2:45	0	0	0	1	1
3:00	0	0	0	1	1
3:15	1	0	0	0	1
3:30	0	0	0	1	1
3:45	0	0	0	1	1
4:00	1	0	0	1	2
4:15	1	0	2	0	3
4:30	0	0	1	0	1
4:45	0	0	0	0	0
5:00	1	0	1	1	3
5:15	2	0	2	0	4
5:30	1	0	0	3	4
5:45	0	0	0	0	0
6:00	2	0	0	0	2
6:15	1	0	0	1	2
6:30	0	0	2	0	2
6:45	0	0	1	1	2
7:00	1	0	0	2	3
7:15	0	0	0	0	0
7:30	0	0	3	2	5
7:45	0	0	0	0	0
8:00	0	0	0	0	0
8:15	0	1	0	2	3
8:30	1	0	1	0	2
8:45	0	0	0	1	1
9:00	0	0	0	0	0
9:15	0	0	0	0	0
9:30	0	0	0	2	2
9:45	0	0	0	0	0
10:00	0	0	1	0	1
10:15	0	0	0	1	1
10:30	0	0	2	1	3
10:45	0	0	1	0	1
11:00	0	0	1	1	2
11:15	0	0	1	0	1
11:30	0	0	2	1	3
11:45	0	0	0	0	0



City: San Bernardino  
 Location: 1935 5th Street  
 Date: 2/8/2022  
 Count Type: 24 Hour Classified Driveway Count

	Entering				Total
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	
12:00	1	0	3	1	5
12:15	2	0	0	2	4
12:30	0	0	0	0	0
12:45	1	1	0	1	3
13:00	0	0	1	2	3
13:15	0	0	2	0	2
13:30	0	0	0	2	2
13:45	1	0	0	0	1
14:00	1	0	1	2	4
14:15	0	0	0	1	1
14:30	0	0	0	0	0
14:45	0	0	1	2	3
15:00	1	0	0	2	3
15:15	0	0	0	3	3
15:30	3	0	1	2	6
15:45	1	0	1	0	2
16:00	1	0	0	0	1
16:15	1	0	0	0	1
16:30	0	0	0	2	2
16:45	1	0	1	1	3
17:00	1	0	1	3	5
17:15	2	0	1	1	4
17:30	1	0	0	0	1
17:45	0	0	0	1	1
18:00	0	0	0	2	2
18:15	1	0	1	0	2
18:30	0	0	0	3	3
18:45	0	0	0	0	0
19:00	1	0	0	0	1
19:15	1	0	0	0	1
19:30	0	0	0	1	1
19:45	0	0	0	2	2
20:00	0	0	0	0	0
20:15	1	0	0	0	1
20:30	1	0	1	1	3
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	1	0	1	0	2
21:30	0	0	1	0	1
21:45	1	0	0	1	2
22:00	0	0	0	0	0
22:15	0	0	0	0	0
22:30	0	0	0	0	0
22:45	0	0	1	0	1
23:00	0	0	0	0	0
23:15	0	0	1	0	1
23:30	0	0	2	1	3
23:45	0	0	0	1	1
<b>TOTAL</b>	<b>52</b>	<b>2</b>	<b>37</b>	<b>60</b>	<b>151</b>

	Exiting				Total
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	
12:00	0	0	2	2	4
12:15	0	0	0	0	0
12:30	0	0	2	0	2
12:45	0	1	1	0	2
13:00	0	0	0	2	2
13:15	1	0	1	0	2
13:30	0	0	1	2	3
13:45	1	0	0	2	3
14:00	2	0	0	0	2
14:15	0	0	1	1	2
14:30	0	0	1	0	1
14:45	1	0	1	0	2
15:00	4	0	0	0	4
15:15	1	0	0	0	1
15:30	3	0	0	1	4
15:45	1	0	0	2	3
16:00	2	0	1	0	3
16:15	1	0	0	1	2
16:30	0	0	1	0	1
16:45	1	0	0	0	1
17:00	0	0	1	1	2
17:15	2	0	1	0	3
17:30	1	0	0	0	1
17:45	2	0	0	0	2
18:00	0	0	2	1	3
18:15	1	0	0	2	3
18:30	2	0	0	1	3
18:45	1	0	1	0	2
19:00	2	0	0	0	2
19:15	0	0	0	0	0
19:30	0	0	1	0	1
19:45	0	0	0	2	2
20:00	0	0	0	1	1
20:15	0	0	0	2	2
20:30	1	0	1	0	2
20:45	0	0	1	0	1
21:00	0	0	0	0	0
21:15	0	0	0	0	0
21:30	0	0	0	0	0
21:45	0	0	1	1	2
22:00	1	0	0	0	1
22:15	0	0	2	1	3
22:30	1	0	0	0	1
22:45	0	0	0	0	0
23:00	0	0	0	1	1
23:15	0	0	0	0	0
23:30	0	0	0	2	2
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>47</b>	<b>2</b>	<b>48</b>	<b>55</b>	<b>152</b>



City: PERRIS  
 Location: 5087 Patterson Avenue  
 Date: 1/23/2019  
 Count Type: 24 Hour Classified Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	1	0	0	0	1
1:00	1	0	0	0	1
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	1	0	1
2:00	0	0	0	0	0
2:15	0	0	0	0	0
2:30	0	0	0	0	0
2:45	0	0	0	0	0
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	0	0	0	0	0
4:15	0	0	0	0	0
4:30	0	0	0	0	0
4:45	0	0	0	0	0
5:00	0	0	0	0	0
5:15	0	0	0	0	0
5:30	0	0	0	0	0
5:45	0	0	0	0	0
6:00	1	0	0	0	1
6:15	0	0	0	1	1
6:30	0	0	0	1	1
6:45	2	0	0	3	5
7:00	0	0	0	0	0
7:15	0	0	1	0	1
7:30	0	0	0	1	1
7:45	0	0	0	0	0
8:00	2	0	0	0	2
8:15	0	0	0	0	0
8:30	0	0	0	0	0
8:45	0	1	0	0	1
9:00	1	0	0	2	3
9:15	0	0	0	0	0
9:30	0	0	0	0	0
9:45	1	0	0	0	1
10:00	0	0	0	0	0
10:15	0	0	0	0	0
10:30	0	0	0	0	0
10:45	0	0	0	0	0
11:00	0	0	0	1	1
11:15	0	0	1	1	2
11:30	0	1	1	1	3
11:45	0	0	0	0	0

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	0	1	0	1
2:15	0	0	0	0	0
2:30	0	0	0	0	0
2:45	0	0	0	0	0
3:00	1	0	0	0	1
3:15	1	0	0	0	1
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	0	0	0	0	0
4:15	0	0	0	0	0
4:30	0	0	0	0	0
4:45	0	0	0	0	0
5:00	0	0	0	0	0
5:15	0	0	0	0	0
5:30	0	0	0	0	0
5:45	0	0	0	0	0
6:00	0	0	0	0	0
6:15	0	0	0	0	0
6:30	1	0	1	0	2
6:45	0	0	0	0	0
7:00	1	0	3	0	4
7:15	1	0	1	0	2
7:30	0	0	1	0	1
7:45	0	0	0	0	0
8:00	0	1	0	0	1
8:15	1	0	0	0	1
8:30	0	0	0	0	0
8:45	0	1	0	0	1
9:00	0	0	0	0	0
9:15	1	0	0	0	1
9:30	0	1	0	0	1
9:45	0	0	1	0	1
10:00	1	0	0	0	1
10:15	0	0	0	0	0
10:30	0	0	0	0	0
10:45	0	0	0	0	0
11:00	0	0	0	0	0
11:15	0	0	1	0	1
11:30	0	0	2	0	2
11:45	0	0	0	2	2



City: PERRIS  
 Location: 5087 Patterson Avenue  
 Date: 1/23/2019  
 Count Type: 24 Hour Classified Driveway Count

	Entering				Total
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	
12:00	0	1	0	0	1
12:15	0	1	0	2	3
12:30	0	2	0	0	2
12:45	0	0	0	1	1
13:00	0	0	1	1	2
13:15	0	0	0	0	0
13:30	1	0	0	3	4
13:45	0	0	0	0	0
14:00	1	0	0	2	3
14:15	0	0	0	0	0
14:30	0	0	0	0	0
14:45	0	0	0	0	0
15:00	1	0	0	0	1
15:15	0	0	0	0	0
15:30	0	0	0	0	0
15:45	0	0	0	2	2
16:00	0	0	0	1	1
16:15	0	0	0	0	0
16:30	1	0	0	0	1
16:45	0	0	0	0	0
17:00	0	1	0	0	1
17:15	1	1	0	0	2
17:30	0	0	0	0	0
17:45	0	1	1	0	2
18:00	1	0	0	0	1
18:15	0	0	0	2	2
18:30	0	0	0	3	3
18:45	0	1	0	0	1
19:00	0	1	0	0	1
19:15	0	0	0	0	0
19:30	1	0	0	1	2
19:45	2	0	0	1	3
20:00	0	0	0	0	0
20:15	0	1	0	0	1
20:30	0	2	1	0	3
20:45	1	1	0	0	2
21:00	0	0	1	0	1
21:15	0	0	0	0	0
21:30	0	0	0	0	0
21:45	0	2	0	1	3
22:00	0	2	1	0	3
22:15	0	0	0	1	1
22:30	0	0	0	0	0
22:45	0	1	0	0	1
23:00	0	2	0	2	4
23:15	0	0	0	0	0
23:30	0	0	0	0	0
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>19</b>	<b>22</b>	<b>9</b>	<b>34</b>	<b>84</b>

	Exiting				Total
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	
12:00	0	0	1	0	1
12:15	0	0	0	2	2
12:30	0	0	2	0	2
12:45	0	0	0	0	0
13:00	1	0	2	2	5
13:15	0	0	1	0	1
13:30	1	0	1	0	2
13:45	0	2	0	0	2
14:00	0	0	1	0	1
14:15	0	0	0	0	0
14:30	0	0	1	0	1
14:45	0	0	0	0	0
15:00	0	0	0	0	0
15:15	1	0	0	0	1
15:30	0	0	0	0	0
15:45	0	0	1	0	1
16:00	0	0	1	0	1
16:15	0	1	0	0	1
16:30	1	0	0	0	1
16:45	0	0	0	0	0
17:00	0	0	0	1	1
17:15	1	0	0	1	2
17:30	0	0	0	0	0
17:45	0	0	0	1	1
18:00	0	0	0	1	1
18:15	0	0	0	0	0
18:30	2	2	0	0	4
18:45	0	1	2	0	3
19:00	0	0	0	1	1
19:15	0	0	0	1	1
19:30	0	0	0	0	0
19:45	0	1	0	0	1
20:00	1	0	1	0	2
20:15	0	0	0	1	1
20:30	0	1	0	1	2
20:45	0	0	0	2	2
21:00	2	0	0	0	2
21:15	0	0	0	0	0
21:30	0	0	1	0	1
21:45	0	0	0	1	1
22:00	0	0	1	2	3
22:15	0	0	1	1	2
22:30	0	1	0	0	1
22:45	0	0	0	1	1
23:00	0	1	0	0	1
23:15	0	0	1	2	3
23:30	0	0	0	0	0
23:45	1	0	0	0	1
<b>TOTAL</b>	<b>19</b>	<b>13</b>	<b>29</b>	<b>23</b>	<b>84</b>

This Page Intentionally Left Blank

## **APPENDIX 3.1: TRAFFIC COUNTS – MAY 2022**

This Page Intentionally Left Blank

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	74	1	75	0	0	0	1	0	1	76
07:15 AM	73	2	75	0	0	0	0	0	0	75
07:30 AM	87	1	88	0	0	0	0	2	2	90
07:45 AM	85	2	87	0	0	0	1	0	1	88
<b>Total</b>	<b>319</b>	<b>6</b>	<b>325</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>329</b>
08:00 AM	61	1	62	0	1	1	0	0	0	63
08:15 AM	60	1	61	0	0	0	1	0	1	62
08:30 AM	61	3	64	0	0	0	3	1	4	68
08:45 AM	42	0	42	0	0	0	0	0	0	42
<b>Total</b>	<b>224</b>	<b>5</b>	<b>229</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>235</b>
<b>Grand Total</b>	<b>543</b>	<b>11</b>	<b>554</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>3</b>	<b>9</b>	<b>564</b>
Apprch %	98	2		0	100		66.7	33.3		
Total %	96.3	2	98.2	0	0.2	0.2	1.1	0.5	1.6	
Passenger Vehicles	526	9	535	0	0	0	6	3	9	544
% Passenger Vehicles	96.9	81.8	96.6	0	0	0	100	100	100	96.5
Large 2 Axle Vehicles	14	2	16	0	1	1	0	0	0	17
% Large 2 Axle Vehicles	2.6	18.2	2.9	0	100	100	0	0	0	3
3 Axle Vehicles	1	0	1	0	0	0	0	0	0	1
% 3 Axle Vehicles	0.2	0	0.2	0	0	0	0	0	0	0.2
4+ Axle Trucks	2	0	2	0	0	0	0	0	0	2
% 4+ Axle Trucks	0.4	0	0.4	0	0	0	0	0	0	0.4

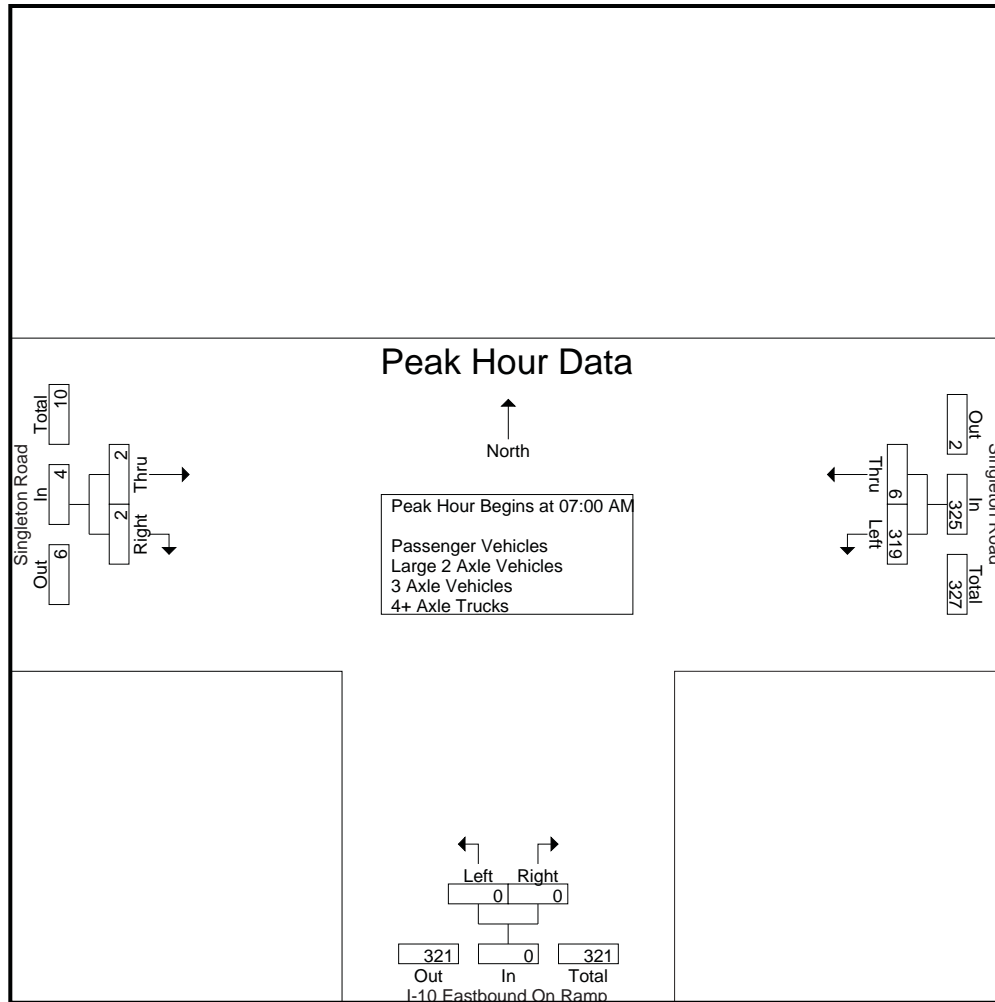
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	74	1	75	0	0	0	1	0	1	76
07:15 AM	73	2	75	0	0	0	0	0	0	75
07:30 AM	<b>87</b>	1	<b>88</b>	0	0	0	0	<b>2</b>	<b>2</b>	<b>90</b>
07:45 AM	85	2	87	0	0	0	1	0	1	88
Total Volume	319	6	325	0	0	0	2	2	4	329
% App. Total	98.2	1.8		0	0		50	50		
PHF	.917	.750	.923	.000	.000	.000	.500	.250	.500	.914



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM			07:15 AM			07:45 AM		
+0 mins.	74	1	75	0	0	0	1	0	1
+15 mins.	73	2	75	0	0	0	0	0	0
+30 mins.	<b>87</b>	1	<b>88</b>	0	0	0	1	0	1
+45 mins.	85	2	87	0	1	1	3	1	4
Total Volume	319	6	325	0	1	1	5	1	6
% App. Total	98.2	1.8		0	100		83.3	16.7	
PHF	.917	.750	.923	.000	.250	.250	.417	.250	.375

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

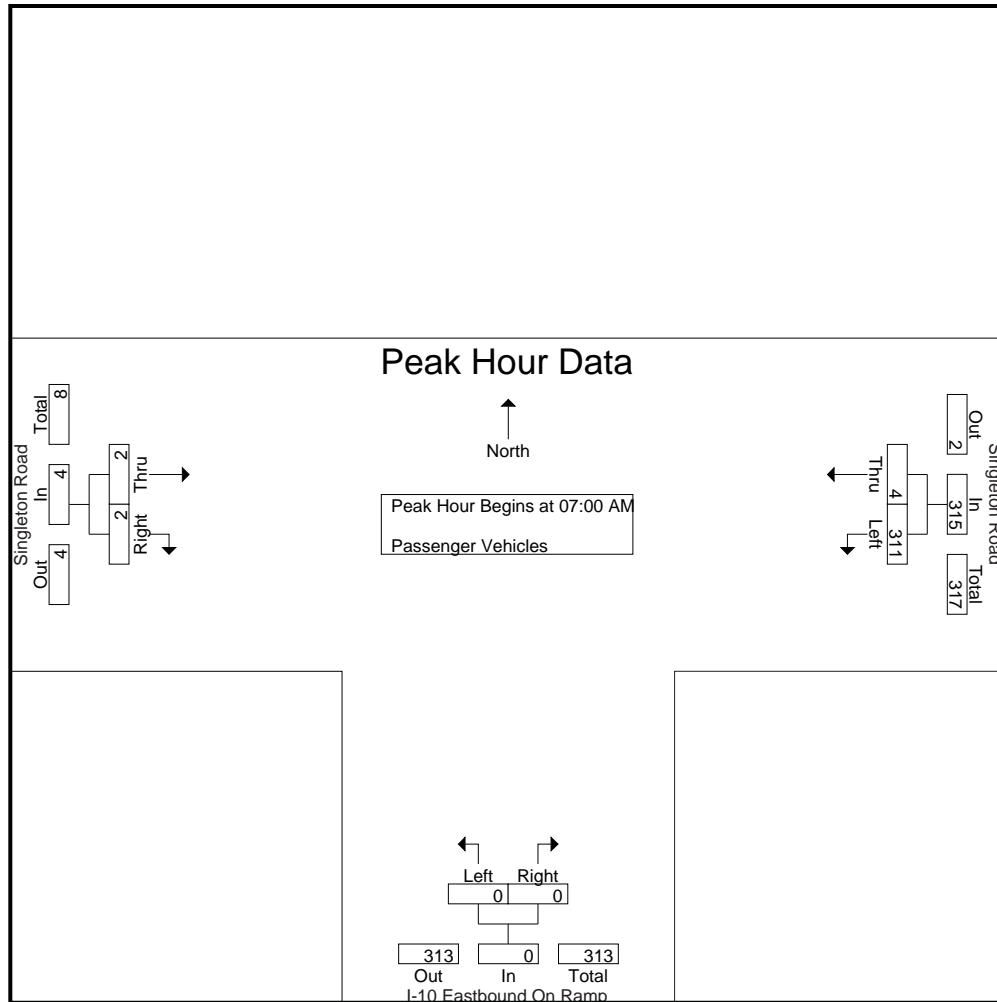
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	71	0	71	0	0	0	1	0	1	72
07:15 AM	73	2	75	0	0	0	0	0	0	75
07:30 AM	83	0	83	0	0	0	0	2	2	85
07:45 AM	84	2	86	0	0	0	1	0	1	87
Total	311	4	315	0	0	0	2	2	4	319
08:00 AM	60	1	61	0	0	0	0	0	0	61
08:15 AM	56	1	57	0	0	0	1	0	1	58
08:30 AM	59	3	62	0	0	0	3	1	4	66
08:45 AM	40	0	40	0	0	0	0	0	0	40
Total	215	5	220	0	0	0	4	1	5	225
Grand Total	526	9	535	0	0	0	6	3	9	544
Apprch %	98.3	1.7		0	0		66.7	33.3		
Total %	96.7	1.7	98.3	0	0	0	1.1	0.6	1.7	

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	71	0	71	0	0	0	1	0	1	72
07:15 AM	73	2	75	0	0	0	0	0	0	75
07:30 AM	83	0	83	0	0	0	0	2	2	85
07:45 AM	84	2	86	0	0	0	1	0	1	87
Total Volume	311	4	315	0	0	0	2	2	4	319
% App. Total	98.7	1.3		0	0		50	50		
PHF	.926	.500	.916	.000	.000	.000	.500	.250	.500	.917

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	71	0	71	0	0	0	1	0	1
+15 mins.	73	2	75	0	0	0	0	0	0
+30 mins.	83	0	83	0	0	0	0	2	2
+45 mins.	84	2	86	0	0	0	1	0	1
Total Volume	311	4	315	0	0	0	2	2	4
% App. Total	98.7	1.3		0	0		50	50	
PHF	.926	.500	.916	.000	.000	.000	.500	.250	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	3	1	4	0	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	4	1	5	0	0	0	0	0	0	5
07:45 AM	1	0	1	0	0	0	0	0	0	1
Total	8	2	10	0	0	0	0	0	0	10
08:00 AM	0	0	0	0	1	1	0	0	0	1
08:15 AM	4	0	4	0	0	0	0	0	0	4
08:30 AM	1	0	1	0	0	0	0	0	0	1
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	6	0	6	0	1	1	0	0	0	7
Grand Total	14	2	16	0	1	1	0	0	0	17
Apprch %	87.5	12.5		0	100		0	0		
Total %	82.4	11.8	94.1	0	5.9	5.9	0	0	0	

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	3	1	4	0	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	4	1	5	0	0	0	0	0	0	5
07:45 AM	1	0	1	0	0	0	0	0	0	1
Total Volume	8	2	10	0	0	0	0	0	0	10
% App. Total	80	20		0	0		0	0		
PHF	.500	.500	.500	.000	.000	.000	.000	.000	.000	.500

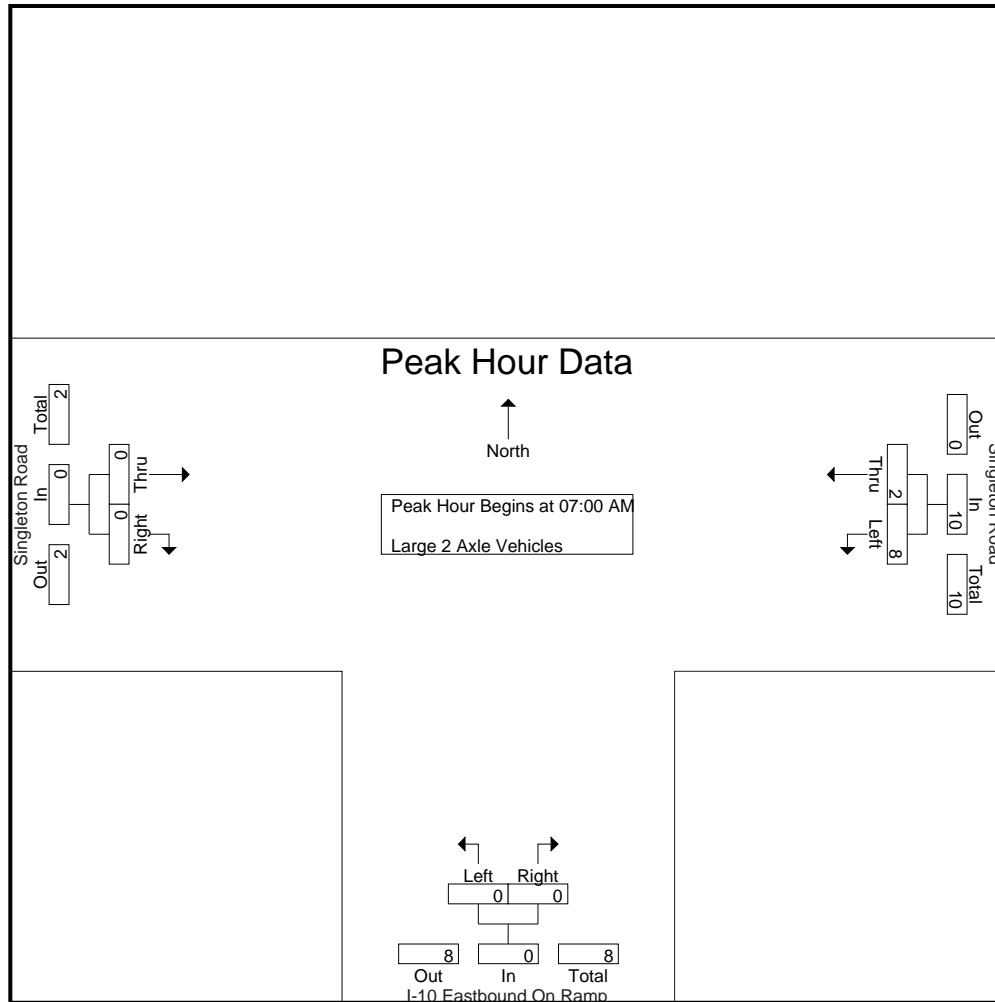
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	3	1	4	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	4	1	5	0	0	0	0	0	0
+45 mins.	1	0	1	0	0	0	0	0	0
Total Volume	8	2	10	0	0	0	0	0	0
% App. Total	80	20		0	0		0	0	
PHF	.500	.500	.500	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

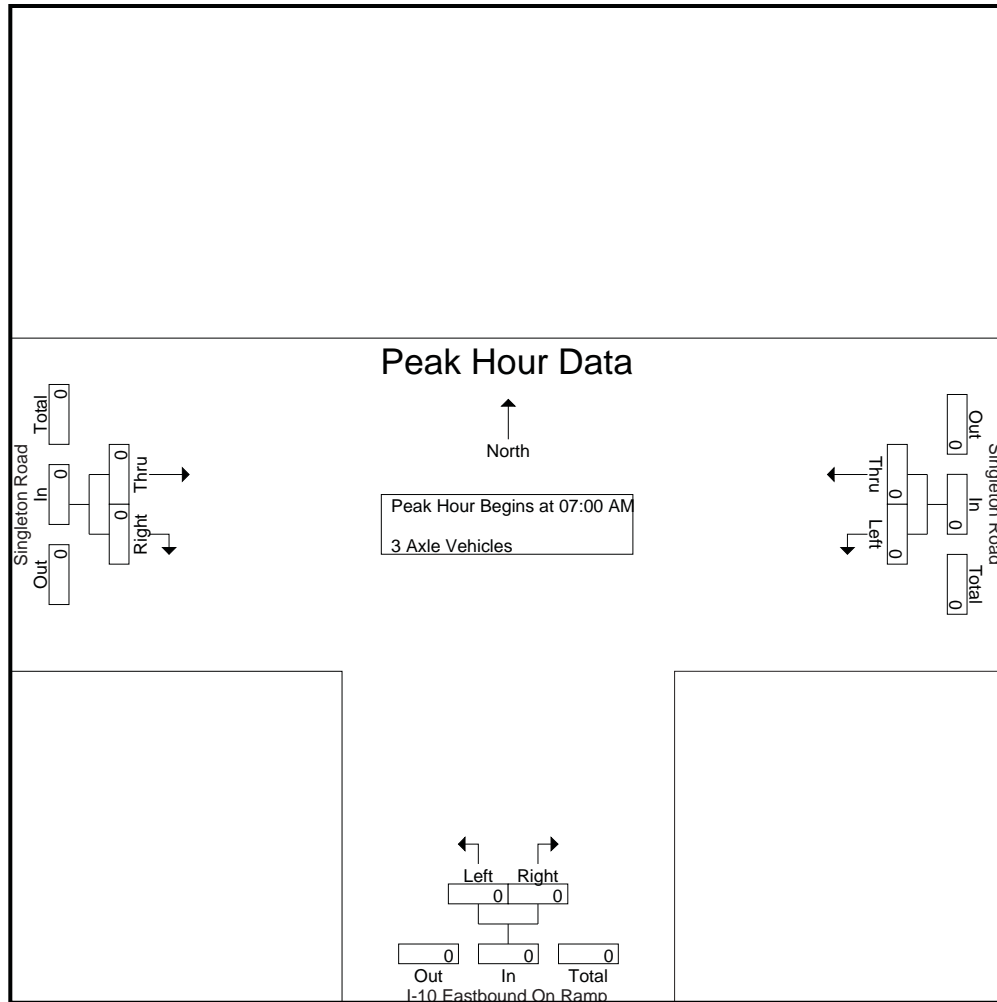
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	1	0	1	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
Grand Total	1	0	1	0	0	0	0	0	0	1
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	1	0	1	0	0	0	0	0	0	1
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	2	0	2	0	0	0	0	0	0	2
Grand Total	2	0	2	0	0	0	0	0	0	2
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

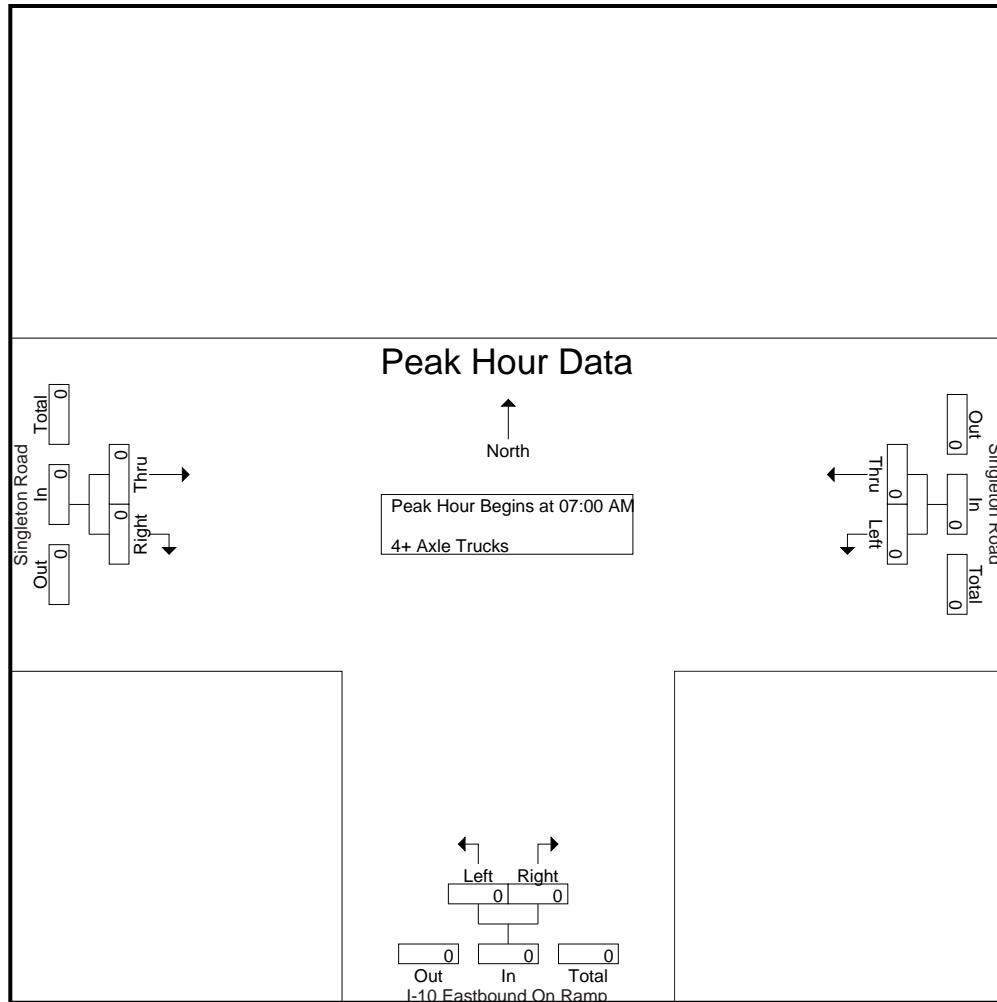
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

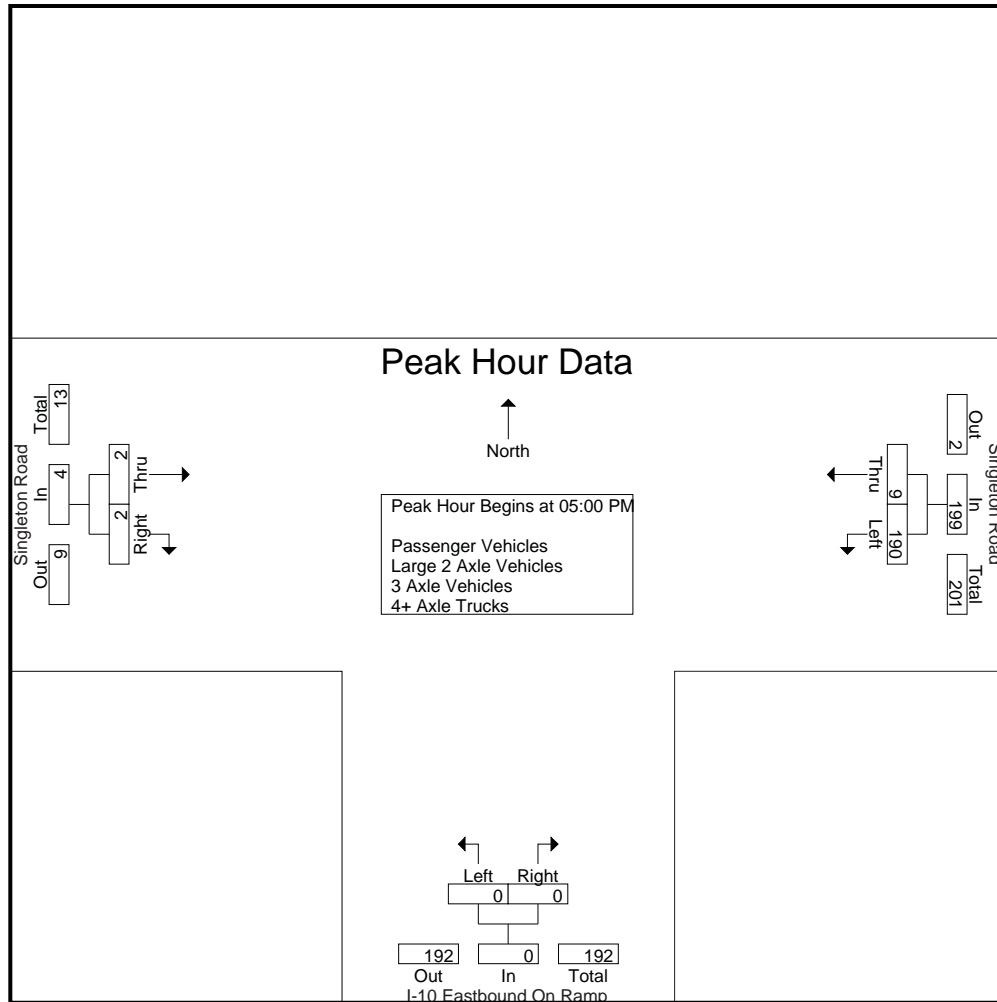
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	53	2	55	0	0	0	0	1	1	56
04:15 PM	32	2	34	0	0	0	1	0	1	35
04:30 PM	51	1	52	0	0	0	1	0	1	53
04:45 PM	31	1	32	0	0	0	0	0	0	32
<b>Total</b>	<b>167</b>	<b>6</b>	<b>173</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>176</b>
05:00 PM	50	2	52	0	0	0	0	1	1	53
05:15 PM	46	1	47	0	0	0	0	0	0	47
05:30 PM	52	3	55	0	0	0	1	0	1	56
05:45 PM	42	3	45	0	0	0	1	1	2	47
<b>Total</b>	<b>190</b>	<b>9</b>	<b>199</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>203</b>
<b>Grand Total</b>	<b>357</b>	<b>15</b>	<b>372</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>379</b>
Apprch %	96	4		0	0		57.1	42.9		
Total %	94.2	4	98.2	0	0	0	1.1	0.8	1.8	
Passenger Vehicles	351	15	366	0	0	0	4	3	7	373
% Passenger Vehicles	98.3	100	98.4	0	0	0	100	100	100	98.4
Large 2 Axle Vehicles	5	0	5	0	0	0	0	0	0	5
% Large 2 Axle Vehicles	1.4	0	1.3	0	0	0	0	0	0	1.3
3 Axle Vehicles	1	0	1	0	0	0	0	0	0	1
% 3 Axle Vehicles	0.3	0	0.3	0	0	0	0	0	0	0.3
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	50	2	52	0	0	0	0	1	1	53
05:15 PM	46	1	47	0	0	0	0	0	0	47
05:30 PM	<b>52</b>	<b>3</b>	<b>55</b>	0	0	0	1	0	1	<b>56</b>
05:45 PM	42	3	45	0	0	0	1	1	2	47
Total Volume	190	9	199	0	0	0	2	2	4	203
% App. Total	95.5	4.5		0	0		50	50		
PHF	.913	.750	.905	.000	.000	.000	.500	.500	.500	.906

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			04:00 PM			05:00 PM		
+0 mins.	50	2	52	0	0	0	0	1	1
+15 mins.	46	1	47	0	0	0	0	0	0
+30 mins.	<b>52</b>	<b>3</b>	<b>55</b>	0	0	0	1	0	1
+45 mins.	42	3	45	0	0	0	1	1	2
Total Volume	190	9	199	0	0	0	2	2	4
% App. Total	95.5	4.5		0	0		50	50	
PHF	.913	.750	.905	.000	.000	.000	.500	.500	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

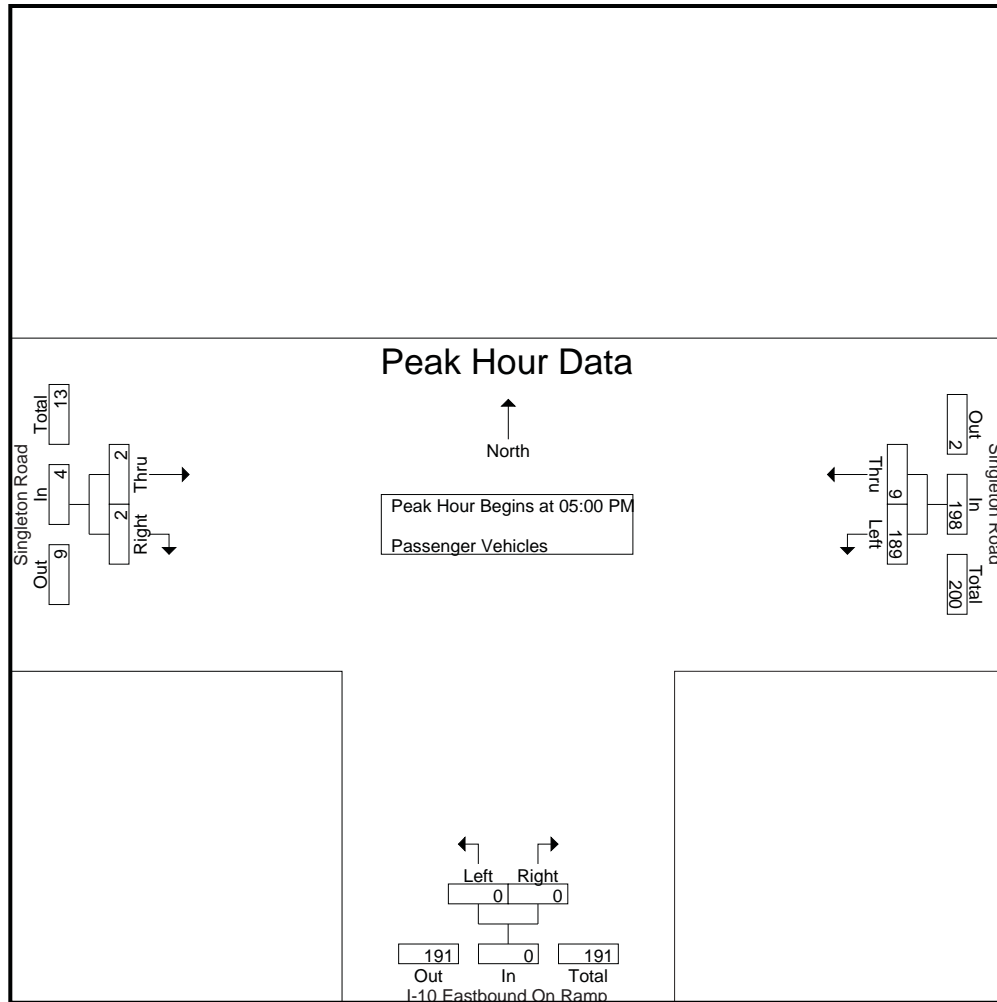
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	50	2	52	0	0	0	0	1	1	53
04:15 PM	31	2	33	0	0	0	1	0	1	34
04:30 PM	51	1	52	0	0	0	1	0	1	53
04:45 PM	30	1	31	0	0	0	0	0	0	31
Total	162	6	168	0	0	0	2	1	3	171
05:00 PM	49	2	51	0	0	0	0	1	1	52
05:15 PM	46	1	47	0	0	0	0	0	0	47
05:30 PM	52	3	55	0	0	0	1	0	1	56
05:45 PM	42	3	45	0	0	0	1	1	2	47
Total	189	9	198	0	0	0	2	2	4	202
Grand Total	351	15	366	0	0	0	4	3	7	373
Apprch %	95.9	4.1		0	0		57.1	42.9		
Total %	94.1	4	98.1	0	0	0	1.1	0.8	1.9	

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	49	2	51	0	0	0	0	1	1	52
05:15 PM	46	1	47	0	0	0	0	0	0	47
05:30 PM	52	3	55	0	0	0	1	0	1	56
05:45 PM	42	3	45	0	0	0	1	1	2	47
Total Volume	189	9	198	0	0	0	2	2	4	202
% App. Total	95.5	4.5		0	0		50	50		
PHF	.909	.750	.900	.000	.000	.000	.500	.500	.500	.902

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	49	2	51	0	0	0	0	1	1
+15 mins.	46	1	47	0	0	0	0	0	0
+30 mins.	<b>52</b>	<b>3</b>	<b>55</b>	0	0	0	1	0	1
+45 mins.	42	3	45	0	0	0	1	1	2
Total Volume	189	9	198	0	0	0	2	2	4
% App. Total	95.5	4.5		0	0		50	50	
PHF	.909	.750	.900	.000	.000	.000	.500	.500	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

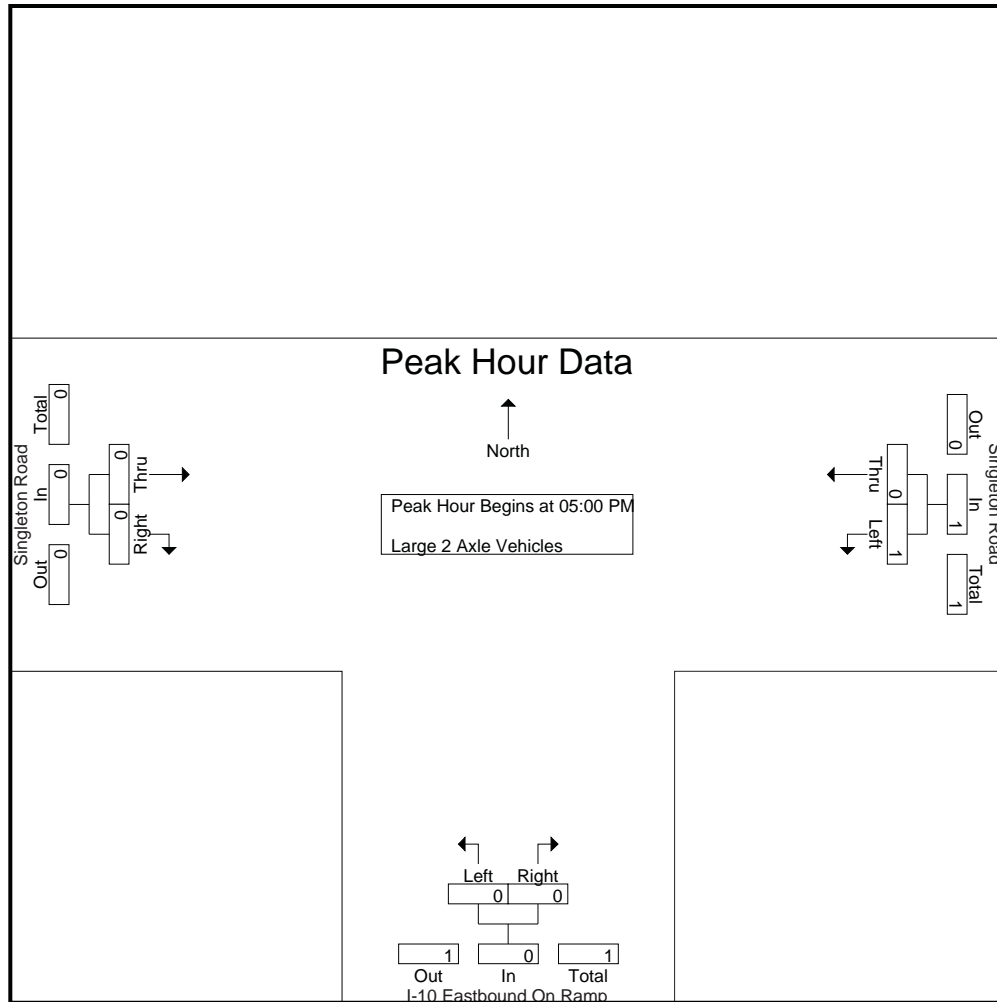
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	2	0	2	0	0	0	0	0	0	2
04:15 PM	1	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	1	0	0	0	0	0	0	1
Total	4	0	4	0	0	0	0	0	0	4
05:00 PM	1	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
Grand Total	5	0	5	0	0	0	0	0	0	5
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	1	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	0	0	0	1
% App. Total	100	0		0	0		0	0		
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	1	0	0	0	0	0	0	1
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

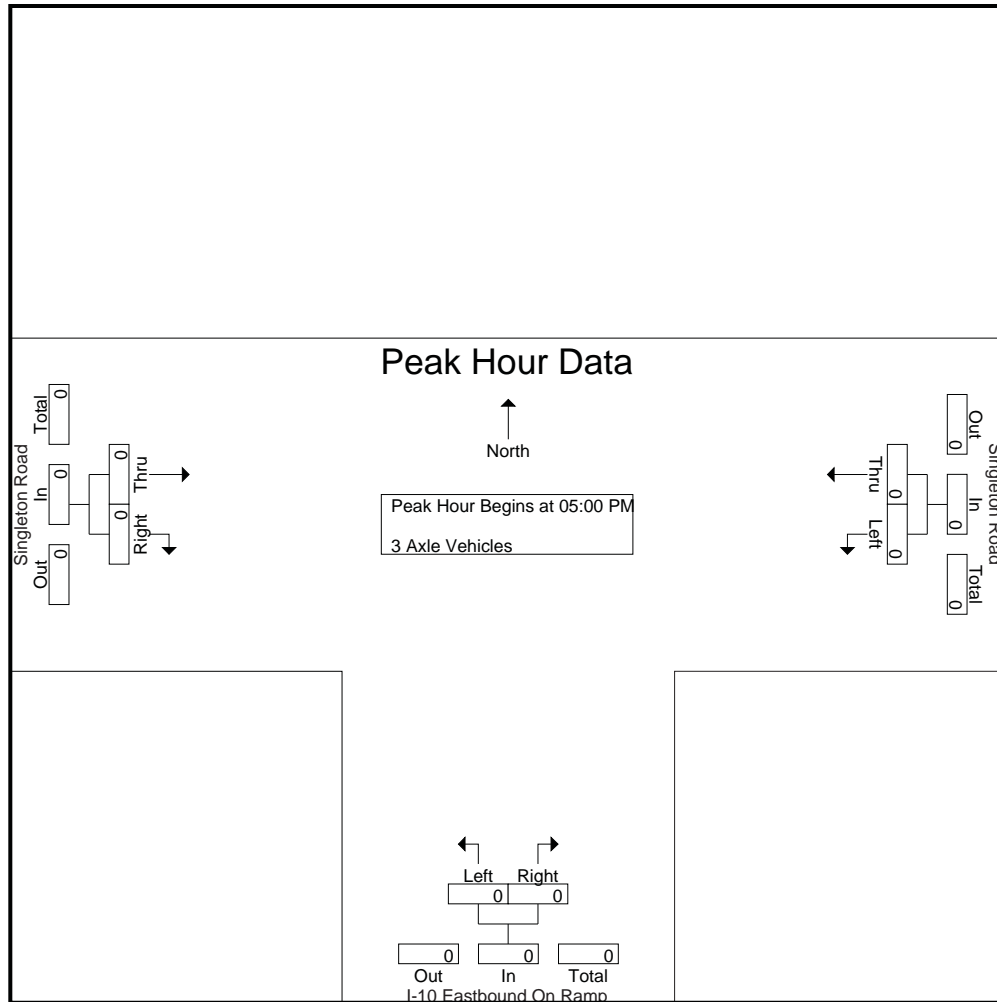
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

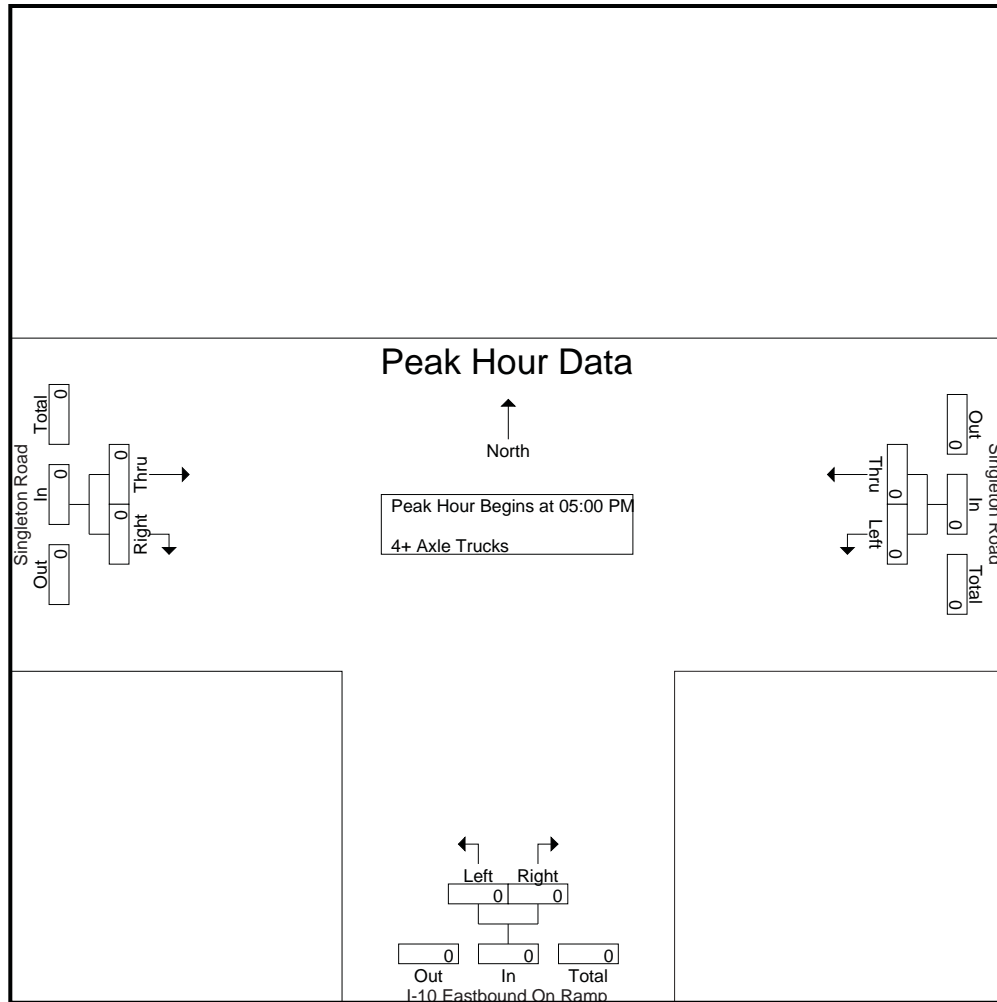
Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10E On\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Calimesa  
 N/S: I-10 EB On Ramp  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### PEDESTRIANS

	North Leg Dead End	East Leg Singleton Road	South Leg I-10 EB On Ramp	West Leg Singleton Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Singleton Road	South Leg I-10 EB On Ramp	West Leg Singleton Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 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
TOTAL VOLUMES:	0	0	0	0	0

Location: Calimesa  
 N/S: I-10 EB On Ramp  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### BICYCLES

	Southbound Dead End			Westbound Singleton Road			Northbound I-10 EB On Ramp			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Dead End			Westbound Singleton Road			Northbound I-10 EB On Ramp			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	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
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

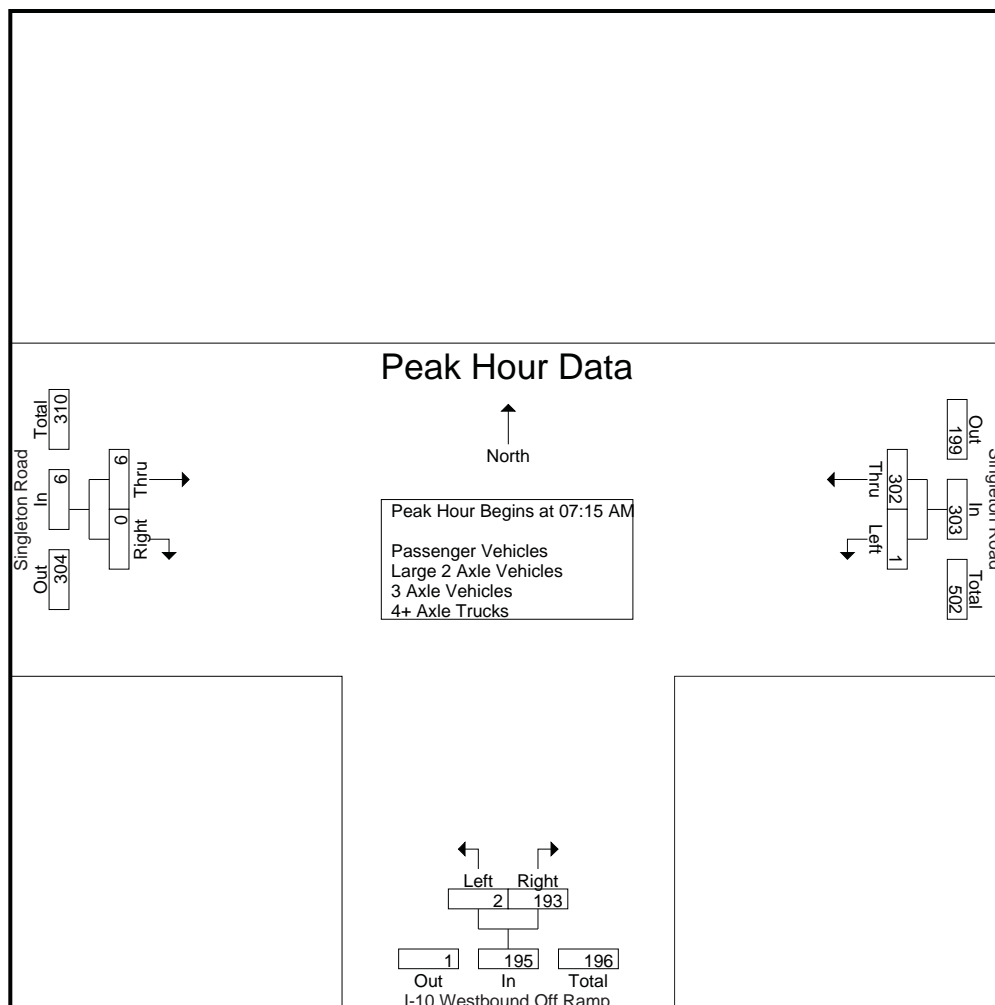
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	68	68	0	50	50	3	0	3	121
07:15 AM	1	73	74	0	37	37	3	0	3	114
07:30 AM	0	85	85	0	38	38	1	0	1	124
07:45 AM	0	86	86	1	46	47	2	0	2	135
<b>Total</b>	<b>1</b>	<b>312</b>	<b>313</b>	<b>1</b>	<b>171</b>	<b>172</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>494</b>
08:00 AM	0	58	58	1	72	73	0	0	0	131
08:15 AM	0	54	54	1	42	43	2	0	2	99
08:30 AM	0	60	60	1	42	43	3	0	3	106
08:45 AM	0	38	38	0	48	48	0	0	0	86
<b>Total</b>	<b>0</b>	<b>210</b>	<b>210</b>	<b>3</b>	<b>204</b>	<b>207</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>422</b>
<b>Grand Total</b>	<b>1</b>	<b>522</b>	<b>523</b>	<b>4</b>	<b>375</b>	<b>379</b>	<b>14</b>	<b>0</b>	<b>14</b>	<b>916</b>
Apprch %	0.2	99.8		1.1	98.9		100	0		
Total %	0.1	57	57.1	0.4	40.9	41.4	1.5	0	1.5	
Passenger Vehicles	1	513	514	4	367	371	14	0	14	899
% Passenger Vehicles	100	98.3	98.3	100	97.9	97.9	100	0	100	98.1
Large 2 Axle Vehicles	0	6	6	0	3	3	0	0	0	9
% Large 2 Axle Vehicles	0	1.1	1.1	0	0.8	0.8	0	0	0	1
3 Axle Vehicles	0	1	1	0	3	3	0	0	0	4
% 3 Axle Vehicles	0	0.2	0.2	0	0.8	0.8	0	0	0	0.4
4+ Axle Trucks	0	2	2	0	2	2	0	0	0	4
% 4+ Axle Trucks	0	0.4	0.4	0	0.5	0.5	0	0	0	0.4

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	1	73	74	0	37	37	3	0	3	114
07:30 AM	0	85	85	0	38	38	1	0	1	124
07:45 AM	0	<b>86</b>	<b>86</b>	1	46	47	2	0	2	<b>135</b>
08:00 AM	0	58	58	1	<b>72</b>	<b>73</b>	0	0	0	131
Total Volume	1	302	303	2	193	195	6	0	6	504
% App. Total	0.3	99.7		1	99		100	0		
PHF	.250	.878	.881	.500	.670	.668	.500	.000	.500	.933

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM			08:00 AM			07:00 AM		
+0 mins.	0	68	68	1	72	73	3	0	3
+15 mins.	1	73	74	1	42	43	3	0	3
+30 mins.	0	85	85	1	42	43	1	0	1
+45 mins.	0	86	86	0	48	48	2	0	2
Total Volume	1	312	313	3	204	207	9	0	9
% App. Total	0.3	99.7		1.4	98.6		100	0	
PHF	.250	.907	.910	.750	.708	.709	.750	.000	.750

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	67	67	0	49	49	3	0	3	119
07:15 AM	1	73	74	0	36	36	3	0	3	113
07:30 AM	0	82	82	0	35	35	1	0	1	118
07:45 AM	0	86	86	1	46	47	2	0	2	135
Total	1	308	309	1	166	167	9	0	9	485
08:00 AM	0	57	57	1	72	73	0	0	0	130
08:15 AM	0	52	52	1	41	42	2	0	2	96
08:30 AM	0	58	58	1	41	42	3	0	3	103
08:45 AM	0	38	38	0	47	47	0	0	0	85
Total	0	205	205	3	201	204	5	0	5	414
Grand Total	1	513	514	4	367	371	14	0	14	899
Apprch %	0.2	99.8		1.1	98.9		100	0		
Total %	0.1	57.1	57.2	0.4	40.8	41.3	1.6	0	1.6	

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	1	73	74	0	36	36	3	0	3	113
07:30 AM	0	82	82	0	35	35	1	0	1	118
07:45 AM	0	86	86	1	46	47	2	0	2	135
08:00 AM	0	57	57	1	72	73	0	0	0	130
Total Volume	1	298	299	2	189	191	6	0	6	496
% App. Total	0.3	99.7		1	99		100	0		
PHF	.250	.866	.869	.500	.656	.654	.500	.000	.500	.919

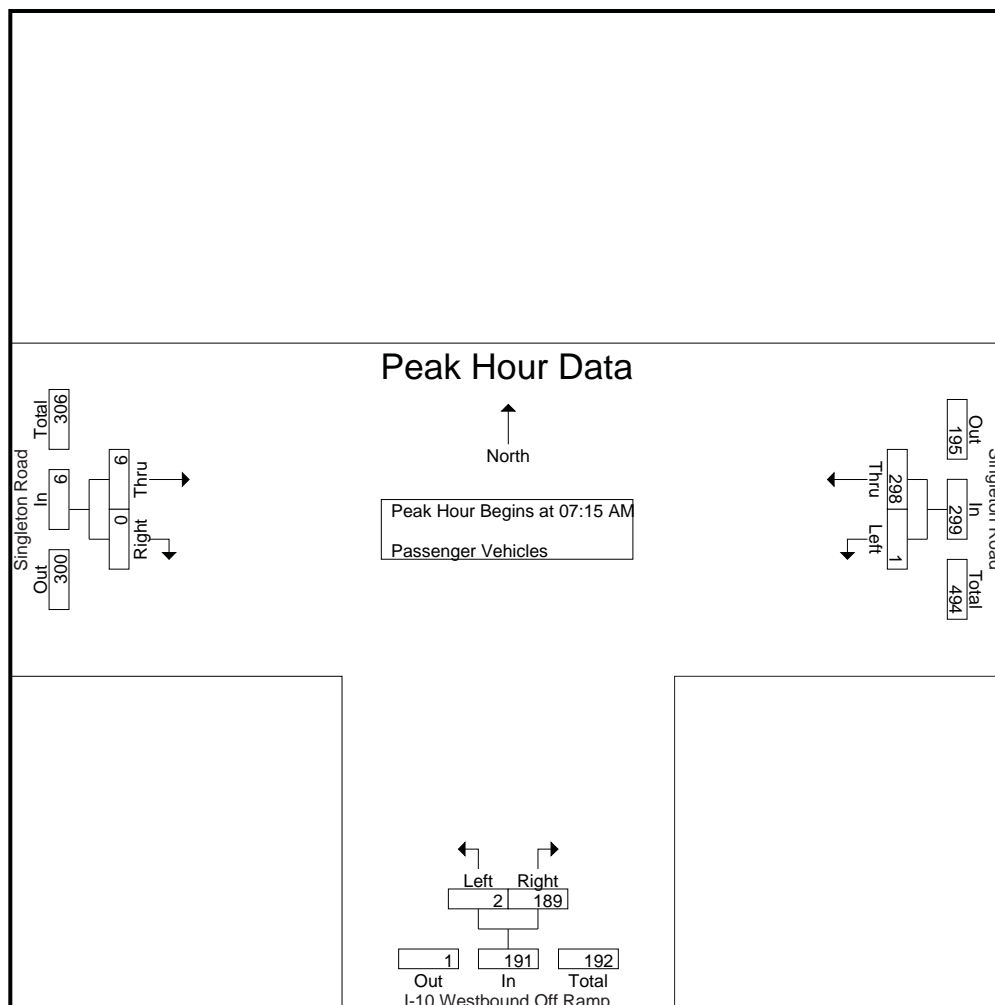
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	1	73	74	0	36	36	3	0	3
+15 mins.	0	82	82	0	35	35	1	0	1
+30 mins.	0	86	86	1	46	47	2	0	2
+45 mins.	0	57	57	1	72	73	0	0	0
Total Volume	1	298	299	2	189	191	6	0	6
% App. Total	0.3	99.7		1	99		100	0	
PHF	.250	.866	.869	.500	.656	.654	.500	.000	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	3	3	0	1	1	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	4	4	0	1	1	0	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	2	2	0	1	1	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	2	2	0	2	2	0	0	0	4
Grand Total	0	6	6	0	3	3	0	0	0	9
Apprch %	0	100		0	100		0	0		
Total %	0	66.7	66.7	0	33.3	33.3	0	0	0	

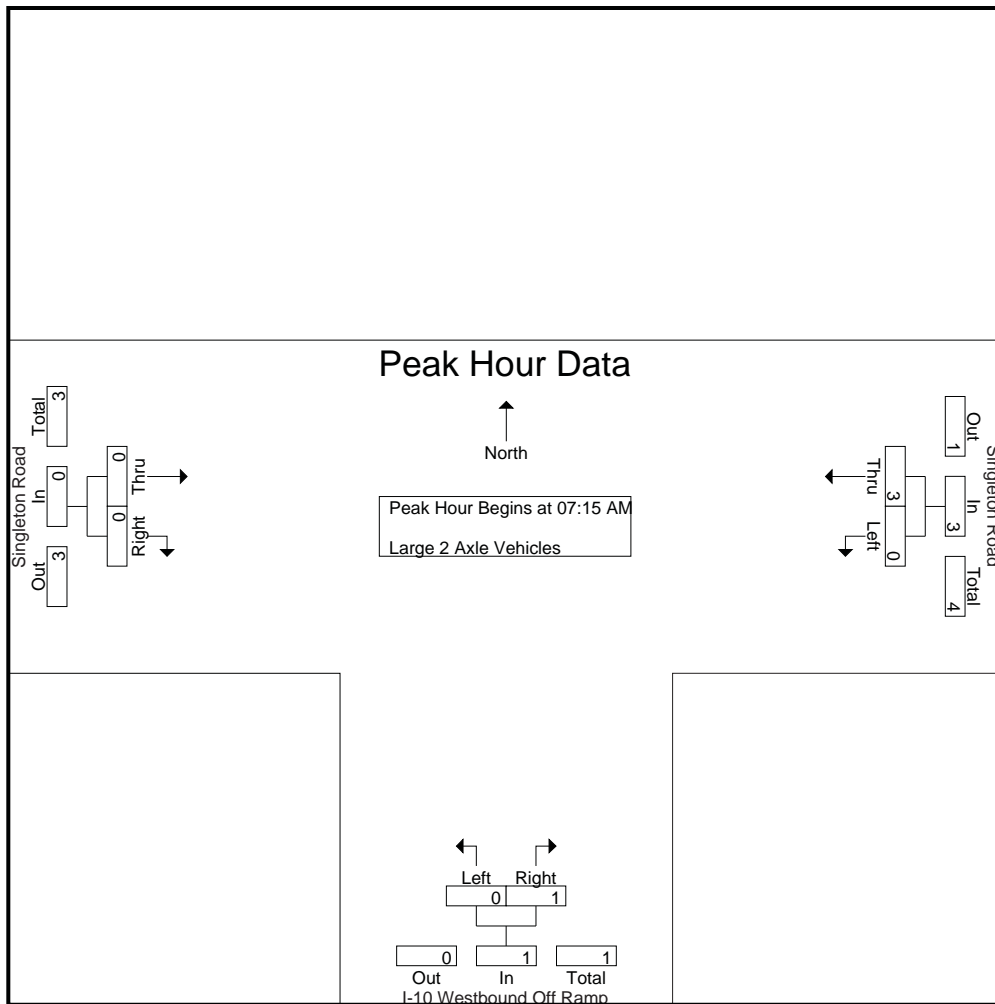
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	3	3	0	1	1	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	3	0	1	1	0	0	0	4
% App. Total	0	100		0	100		0	0		
PHF	.000	.250	.250	.000	.250	.250	.000	.000	.000	.250

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	3	3	0	1	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	3	3	0	1	1	0	0	0
% App. Total	0	100		0	100		0	0	
PHF	.000	.250	.250	.000	.250	.250	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

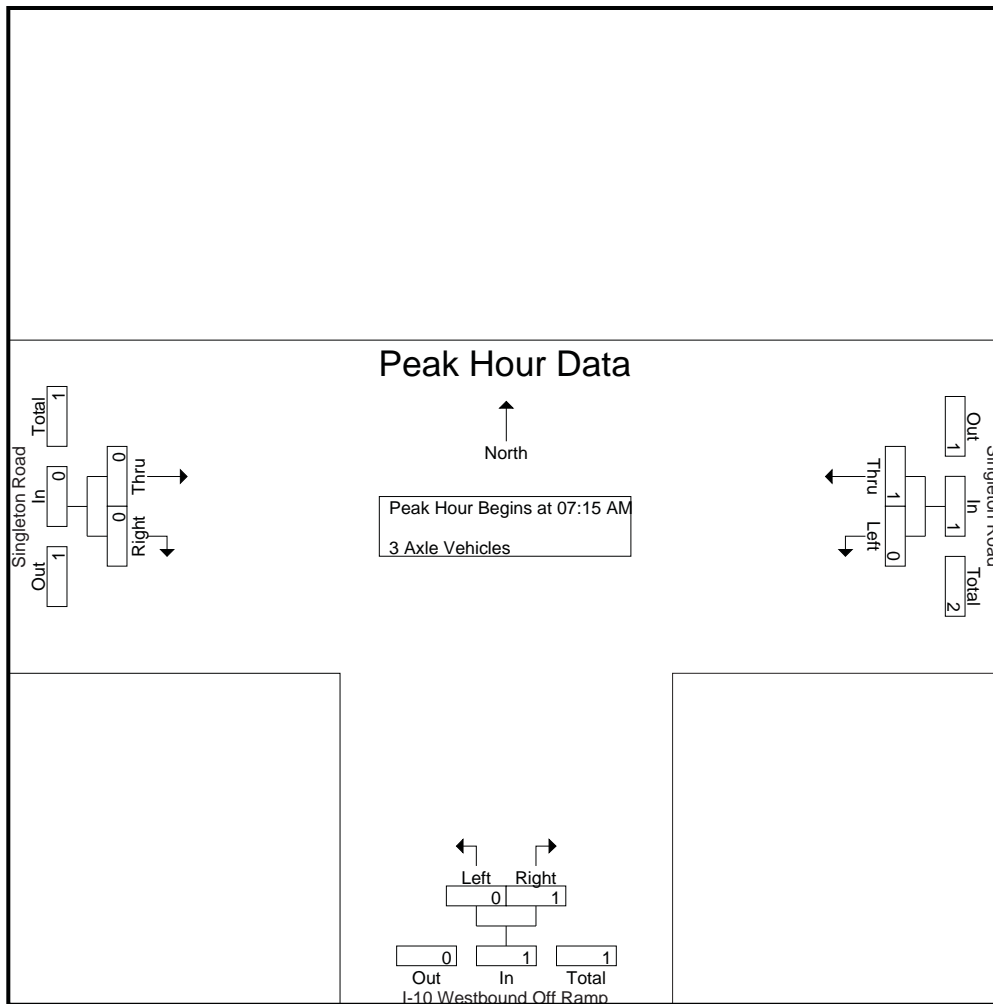
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	0	0	0	0	1	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	2	0	0	0	2
08:00 AM	0	1	1	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	1	1	0	0	0	2
Grand Total	0	1	1	0	3	3	0	0	0	4
Apprch %	0	100		0	100		0	0		
Total %	0	25	25	0	75	75	0	0	0	

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	1	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	1	1	0	1	1	0	0	0	2
% App. Total	0	100		0	100		0	0		
PHF	.000	.250	.250	.000	.250	.250	.000	.000	.000	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	2	2	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	2	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	2	2	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	2	2	0	0	0	0	0	0	2
Grand Total	0	2	2	0	2	2	0	0	0	4
Apprch %	0	100		0	100		0	0		
Total %	0	50	50	0	50	50	0	0	0	

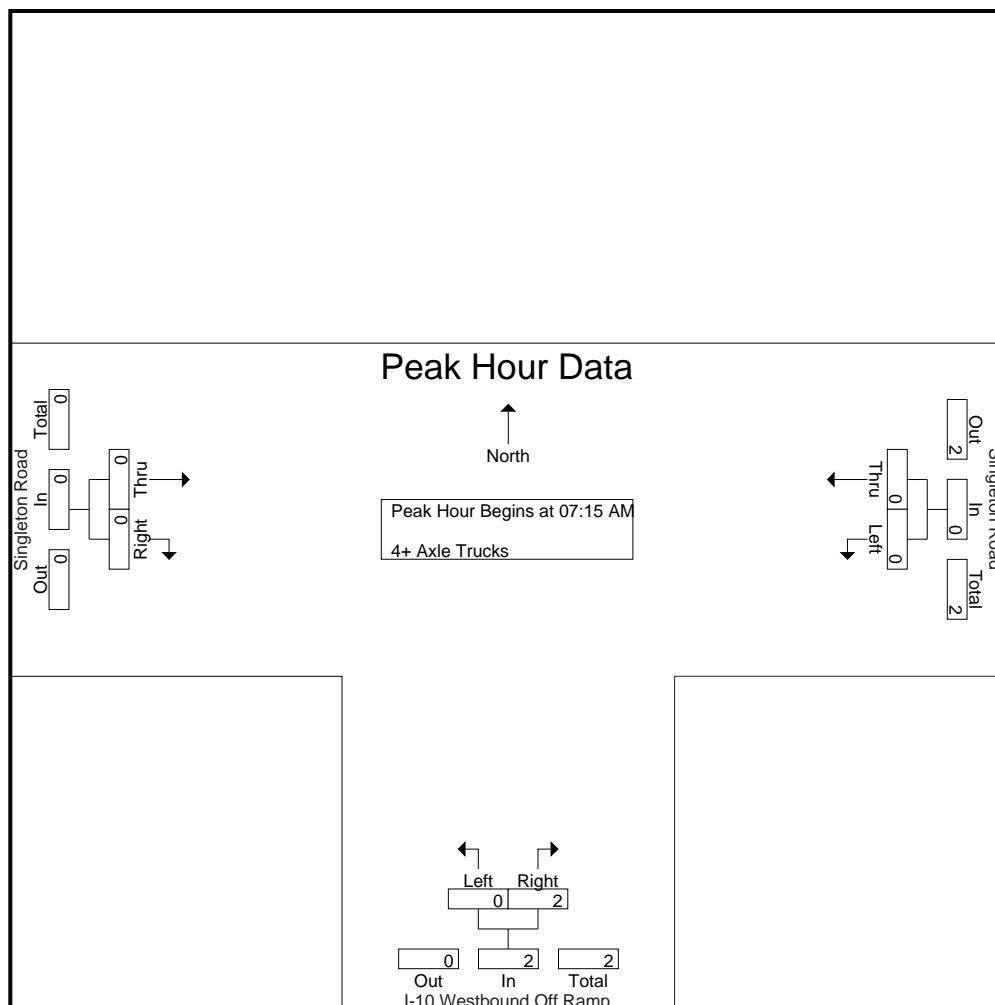
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	2	2	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	2	0	0	0	2
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	53	53	2	67	69	1	0	1	123
04:15 PM	0	35	35	1	63	64	2	0	2	101
04:30 PM	0	47	47	2	64	66	5	0	5	118
04:45 PM	0	35	35	1	65	66	2	0	2	103
<b>Total</b>	<b>0</b>	<b>170</b>	<b>170</b>	<b>6</b>	<b>259</b>	<b>265</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>445</b>
05:00 PM	0	44	44	2	78	80	0	0	0	124
05:15 PM	1	40	41	0	66	66	4	0	4	111
05:30 PM	0	53	53	0	60	60	2	0	2	115
05:45 PM	0	40	40	1	64	65	2	0	2	107
<b>Total</b>	<b>1</b>	<b>177</b>	<b>178</b>	<b>3</b>	<b>268</b>	<b>271</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>457</b>
<b>Grand Total</b>	<b>1</b>	<b>347</b>	<b>348</b>	<b>9</b>	<b>527</b>	<b>536</b>	<b>18</b>	<b>0</b>	<b>18</b>	<b>902</b>
Apprch %	0.3	99.7		1.7	98.3		100	0		
Total %	0.1	38.5	38.6	1	58.4	59.4	2	0	2	
Passenger Vehicles	1	341	342	9	520	529	17	0	17	888
% Passenger Vehicles	100	98.3	98.3	100	98.7	98.7	94.4	0	94.4	98.4
Large 2 Axle Vehicles	0	5	5	0	5	5	0	0	0	10
% Large 2 Axle Vehicles	0	1.4	1.4	0	0.9	0.9	0	0	0	1.1
3 Axle Vehicles	0	1	1	0	1	1	1	0	1	3
% 3 Axle Vehicles	0	0.3	0.3	0	0.2	0.2	5.6	0	5.6	0.3
4+ Axle Trucks	0	0	0	0	1	1	0	0	0	1
% 4+ Axle Trucks	0	0	0	0	0.2	0.2	0	0	0	0.1

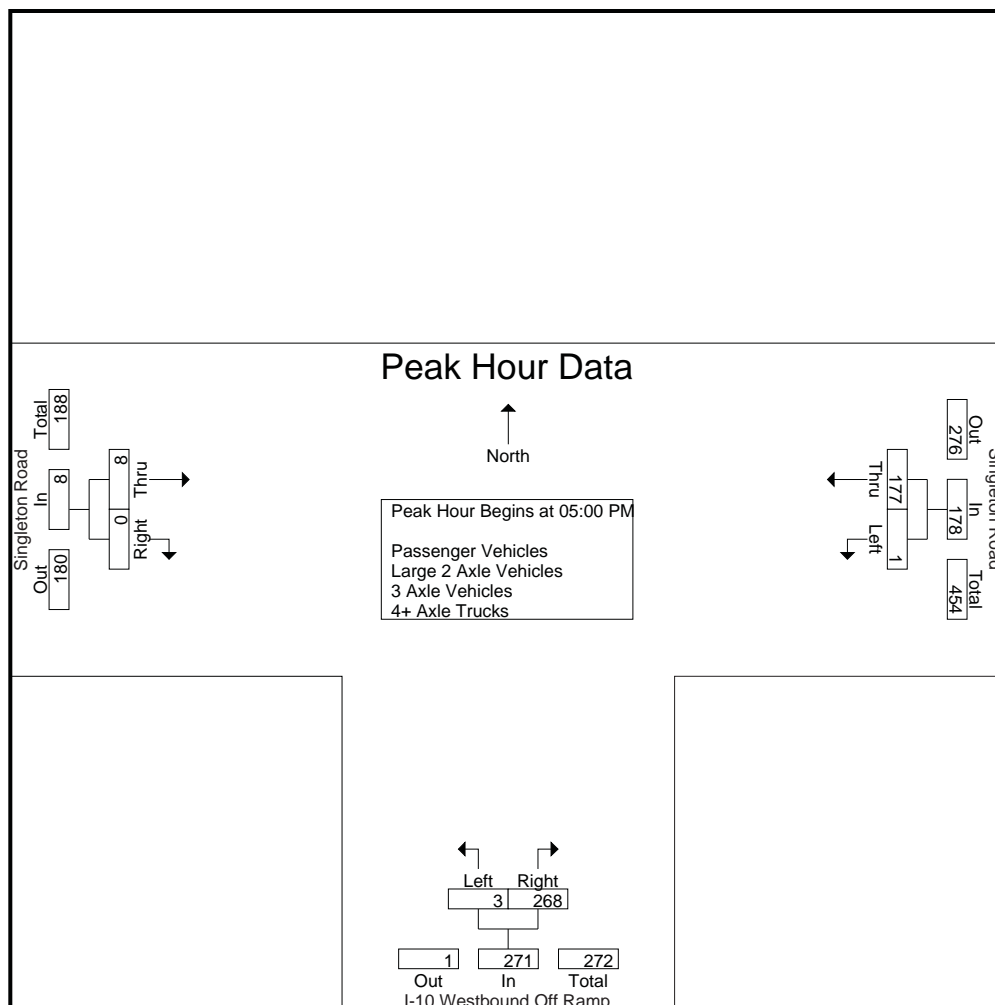
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	44	44	<b>2</b>	<b>78</b>	<b>80</b>	0	0	0	<b>124</b>
05:15 PM	1	40	41	0	66	66	4	0	4	111
05:30 PM	0	<b>53</b>	<b>53</b>	0	60	60	2	0	2	115
05:45 PM	0	40	40	1	64	65	2	0	2	107
<b>Total Volume</b>	<b>1</b>	<b>177</b>	<b>178</b>	<b>3</b>	<b>268</b>	<b>271</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>457</b>
% App. Total	0.6	99.4		1.1	98.9		100	0		
PHF	.250	.835	.840	.375	.859	.847	.500	.000	.500	.921



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			04:30 PM			04:30 PM		
+0 mins.	0	44	44	2	64	66	5	0	5
+15 mins.	1	40	41	1	65	66	2	0	2
+30 mins.	0	53	53	2	78	80	0	0	0
+45 mins.	0	40	40	0	66	66	4	0	4
Total Volume	1	177	178	5	273	278	11	0	11
% App. Total	0.6	99.4		1.8	98.2		100	0	
PHF	.250	.835	.840	.625	.875	.869	.550	.000	.550

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

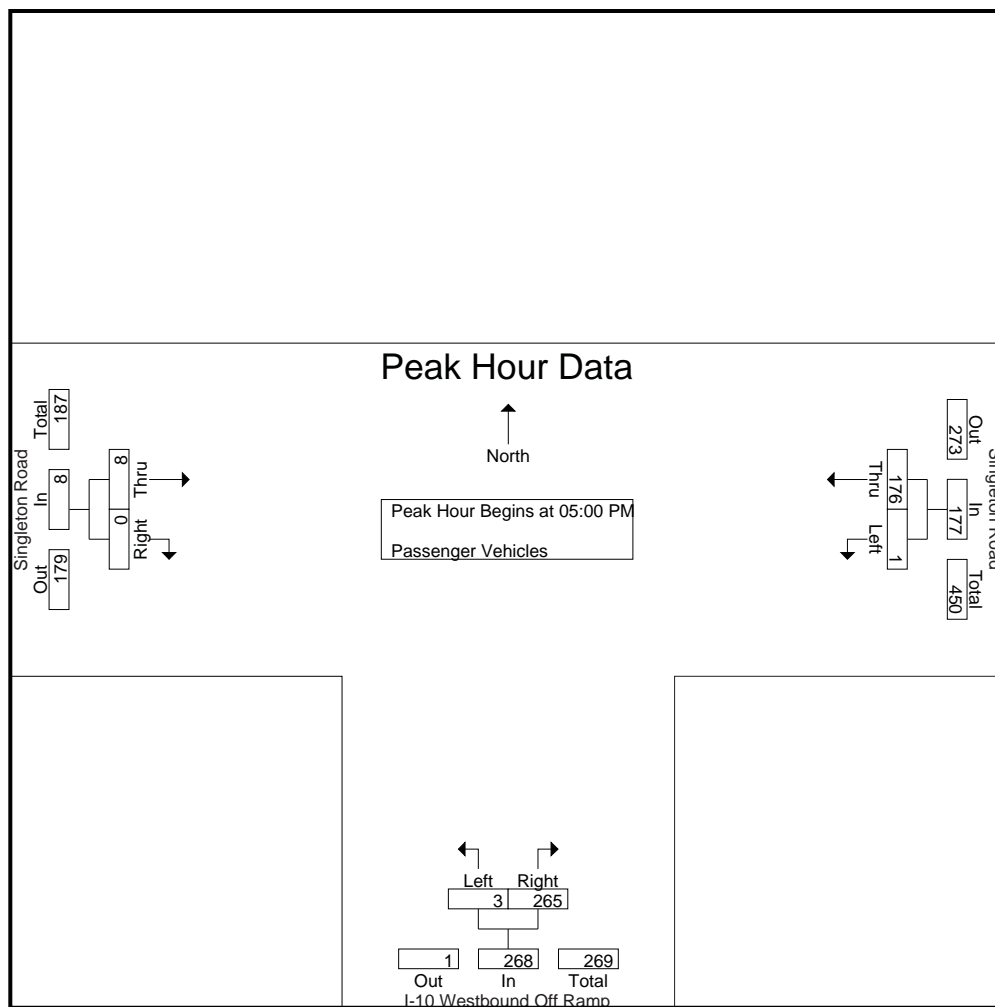
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	50	50	2	67	69	1	0	1	120
04:15 PM	0	34	34	1	62	63	2	0	2	99
04:30 PM	0	47	47	2	63	65	4	0	4	116
04:45 PM	0	34	34	1	63	64	2	0	2	100
<b>Total</b>	<b>0</b>	<b>165</b>	<b>165</b>	<b>6</b>	<b>255</b>	<b>261</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>435</b>
05:00 PM	0	43	43	2	76	78	0	0	0	121
05:15 PM	1	40	41	0	65	65	4	0	4	110
05:30 PM	0	53	53	0	60	60	2	0	2	115
05:45 PM	0	40	40	1	64	65	2	0	2	107
<b>Total</b>	<b>1</b>	<b>176</b>	<b>177</b>	<b>3</b>	<b>265</b>	<b>268</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>453</b>
<b>Grand Total</b>	<b>1</b>	<b>341</b>	<b>342</b>	<b>9</b>	<b>520</b>	<b>529</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>888</b>
Apprch %	0.3	99.7		1.7	98.3		100	0		
Total %	0.1	38.4	38.5	1	58.6	59.6	1.9	0	1.9	

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	43	43	<b>2</b>	<b>76</b>	<b>78</b>	0	0	0	<b>121</b>
05:15 PM	<b>1</b>	40	41	0	65	65	<b>4</b>	0	<b>4</b>	110
05:30 PM	0	<b>53</b>	<b>53</b>	0	60	60	2	0	2	115
05:45 PM	0	40	40	1	64	65	2	0	2	107
<b>Total Volume</b>	<b>1</b>	<b>176</b>	<b>177</b>	<b>3</b>	<b>265</b>	<b>268</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>453</b>
<b>% App. Total</b>	<b>0.6</b>	<b>99.4</b>		<b>1.1</b>	<b>98.9</b>		<b>100</b>	<b>0</b>		
<b>PHF</b>	<b>.250</b>	<b>.830</b>	<b>.835</b>	<b>.375</b>	<b>.872</b>	<b>.859</b>	<b>.500</b>	<b>.000</b>	<b>.500</b>	<b>.936</b>

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	43	43	<b>2</b>	<b>76</b>	<b>78</b>	0	0	0
+15 mins.	1	40	41	0	65	65	4	0	4
+30 mins.	0	<b>53</b>	<b>53</b>	0	60	60	2	0	2
+45 mins.	0	40	40	1	64	65	2	0	2
Total Volume	1	176	177	3	265	268	8	0	8
% App. Total	0.6	99.4		1.1	98.9		100	0	
PHF	.250	.830	.835	.375	.872	.859	.500	.000	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

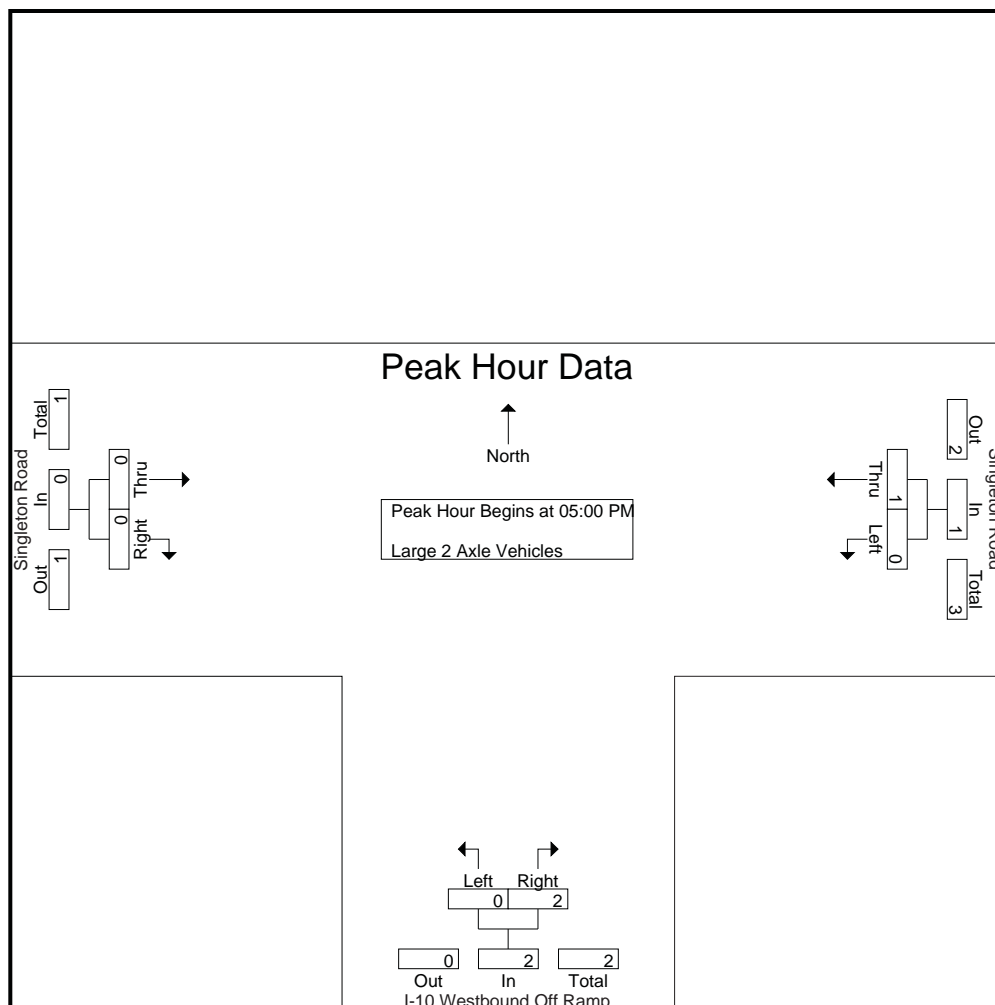
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	2	2	0	0	0	0	0	0	2
04:15 PM	0	1	1	0	1	1	0	0	0	2
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	1	1	0	1	1	0	0	0	2
Total	0	4	4	0	3	3	0	0	0	7
05:00 PM	0	1	1	0	1	1	0	0	0	2
05:15 PM	0	0	0	0	1	1	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	2	2	0	0	0	3
Grand Total	0	5	5	0	5	5	0	0	0	10
Apprch %	0	100		0	100		0	0		
Total %	0	50	50	0	50	50	0	0	0	

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	1	1	0	1	1	0	0	0	2
05:15 PM	0	0	0	0	1	1	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	2	2	0	0	0	3
% App. Total	0	100		0	100		0	0		
PHF	.000	.250	.250	.000	.500	.500	.000	.000	.000	.375

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

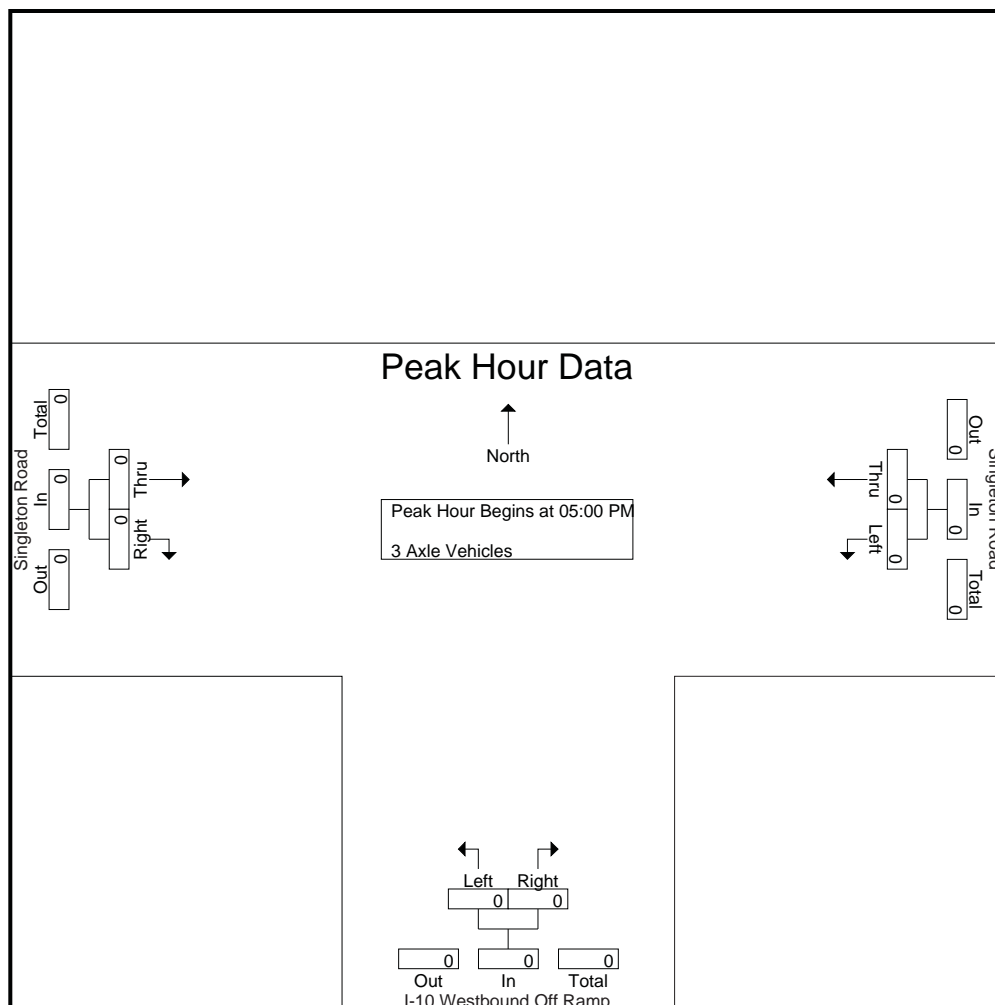
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	1	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	1	1	0	0	0	1
Total	0	1	1	0	1	1	1	0	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	1	0	1	1	1	0	1	3
Apprch %	0	100		0	100		100	0		
Total %	0	33.3	33.3	0	33.3	33.3	33.3	0	33.3	

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	1	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1
Grand Total	0	0	0	0	1	1	0	0	0	1
Apprch %	0	0		0	100		0	0		
Total %	0	0		0	100	100	0	0		

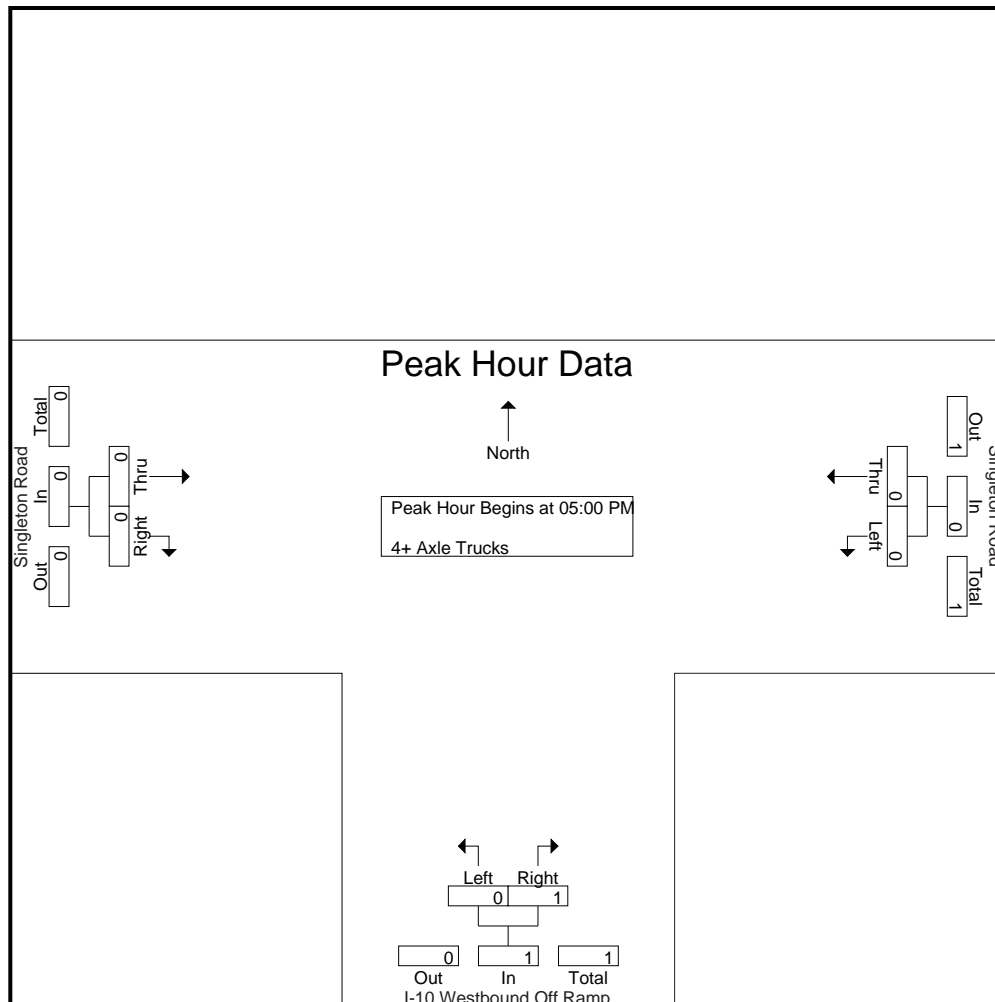
Start Time	Singleton Road Westbound			I-10 Westbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	1	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_10W Off\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Location: Calimesa  
 N/S: I-10 WB Off Ramp  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### PEDESTRIANS

	North Leg Dead End	East Leg Singleton Road	South Leg I-10 WB Off Ramp	West Leg Singleton Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Singleton Road	South Leg I-10 WB Off Ramp	West Leg Singleton Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 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
TOTAL VOLUMES:	0	0	0	0	0

Location: Calimesa  
 N/S: I-10 WB Off Ramp  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### BICYCLES

	Southbound Dead End			Westbound Singleton Road			Northbound I-10 WB Off Ramp			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Dead End			Westbound Singleton Road			Northbound I-10 WB Off Ramp			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	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
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

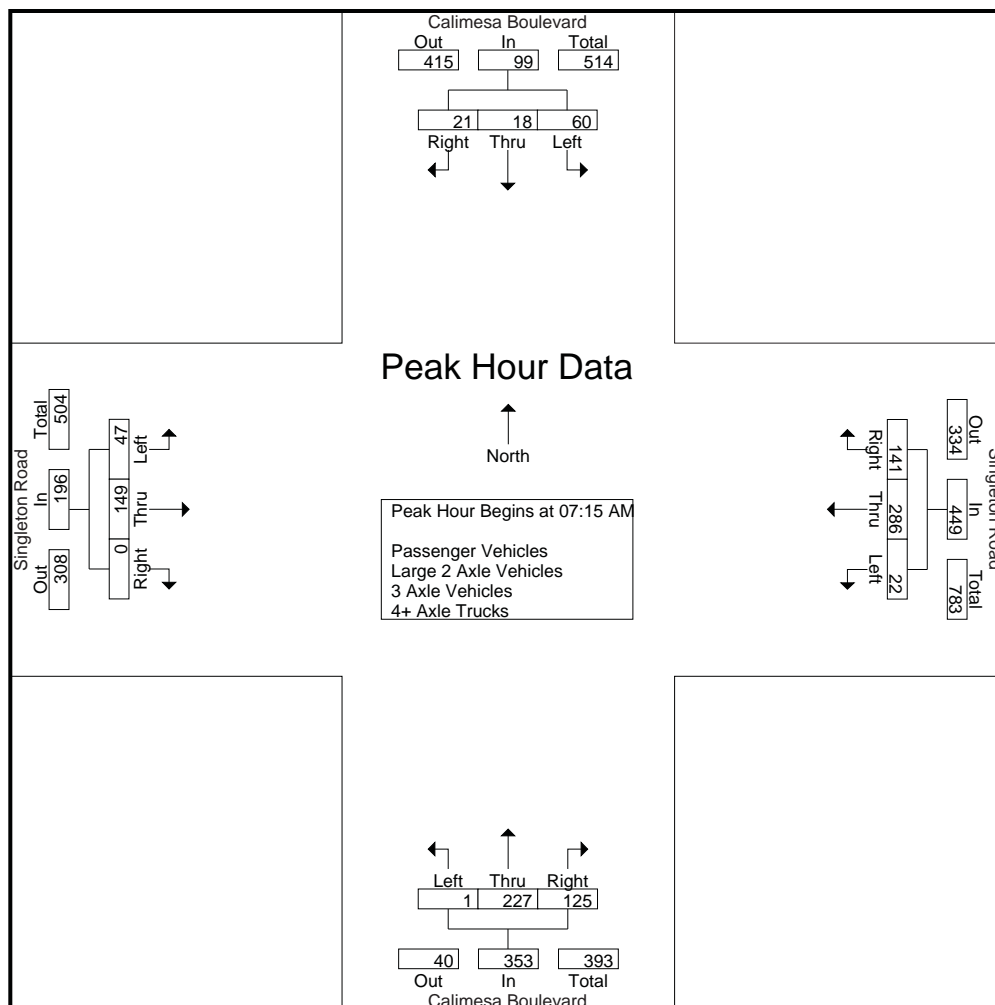
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	4	3	1	8	5	66	56	127	1	7	9	17	8	41	0	49	201
07:15 AM	15	0	5	20	5	70	48	123	0	80	34	114	9	28	0	37	294
07:30 AM	16	5	8	29	2	76	37	115	0	66	45	111	12	26	0	38	293
07:45 AM	12	8	5	25	8	77	23	108	1	63	39	103	9	38	0	47	283
<b>Total</b>	<b>47</b>	<b>16</b>	<b>19</b>	<b>82</b>	<b>20</b>	<b>289</b>	<b>164</b>	<b>473</b>	<b>2</b>	<b>216</b>	<b>127</b>	<b>345</b>	<b>38</b>	<b>133</b>	<b>0</b>	<b>171</b>	<b>1071</b>
08:00 AM	17	5	3	25	7	63	33	103	0	18	7	25	17	57	0	74	227
08:15 AM	20	2	5	27	7	51	26	84	1	8	5	14	16	28	0	44	169
08:30 AM	22	3	9	34	2	55	29	86	1	12	2	15	8	39	0	47	182
08:45 AM	13	8	2	23	4	37	18	59	0	10	2	12	3	42	0	45	139
<b>Total</b>	<b>72</b>	<b>18</b>	<b>19</b>	<b>109</b>	<b>20</b>	<b>206</b>	<b>106</b>	<b>332</b>	<b>2</b>	<b>48</b>	<b>16</b>	<b>66</b>	<b>44</b>	<b>166</b>	<b>0</b>	<b>210</b>	<b>717</b>
<b>Grand Total</b>	<b>119</b>	<b>34</b>	<b>38</b>	<b>191</b>	<b>40</b>	<b>495</b>	<b>270</b>	<b>805</b>	<b>4</b>	<b>264</b>	<b>143</b>	<b>411</b>	<b>82</b>	<b>299</b>	<b>0</b>	<b>381</b>	<b>1788</b>
Apprch %	62.3	17.8	19.9		5	61.5	33.5		1	64.2	34.8		21.5	78.5	0		
Total %	6.7	1.9	2.1	10.7	2.2	27.7	15.1	45	0.2	14.8	8	23	4.6	16.7	0	21.3	
Passenger Vehicles	117	34	38	189	38	487	266	791	3	262	140	405	80	293	0	373	1758
% Passenger Vehicles	98.3	100	100	99	95	98.4	98.5	98.3	75	99.2	97.9	98.5	97.6	98	0	97.9	98.3
Large 2 Axle Vehicles	2	0	0	2	2	6	4	12	1	0	3	4	1	2	0	3	21
% Large 2 Axle Vehicles	1.7	0	0	1	5	1.2	1.5	1.5	25	0	2.1	1	1.2	0.7	0	0.8	1.2
3 Axle Vehicles	0	0	0	0	0	1	0	1	0	2	0	2	1	2	0	3	6
% 3 Axle Vehicles	0	0	0	0	0	0.2	0	0.1	0	0.8	0	0.5	1.2	0.7	0	0.8	0.3
4+ Axle Trucks	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
% 4+ Axle Trucks	0	0	0	0	0	0.2	0	0.1	0	0	0	0	0	0.7	0	0.5	0.2

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	15	0	5	20	5	70	<b>48</b>	<b>123</b>	0	<b>80</b>	34	<b>114</b>	9	28	0	37	<b>294</b>
07:30 AM	16	5	<b>8</b>	<b>29</b>	2	76	37	115	0	66	<b>45</b>	111	12	26	0	38	293
07:45 AM	12	<b>8</b>	5	25	<b>8</b>	<b>77</b>	23	108	<b>1</b>	63	39	103	9	38	0	47	283
08:00 AM	<b>17</b>	5	3	25	7	63	33	103	0	18	7	25	<b>17</b>	<b>57</b>	0	<b>74</b>	227
Total Volume	60	18	21	99	22	286	141	449	1	227	125	353	47	149	0	196	1097
% App. Total	60.6	18.2	21.2		4.9	63.7	31.4		0.3	64.3	35.4		24	76	0		
PHF	.882	.563	.656	.853	.688	.929	.734	.913	.250	.709	.694	.774	.691	.654	.000	.662	.933

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:45 AM				07:00 AM				07:15 AM				07:45 AM			
+0 mins.	12	8	5	25	5	66	56	127	0	80	34	114	9	38	0	47
+15 mins.	17	5	3	25	5	70	48	123	0	66	45	111	17	57	0	74
+30 mins.	20	2	5	27	2	76	37	115	1	63	39	103	16	28	0	44
+45 mins.	22	3	9	34	8	77	23	108	0	18	7	25	8	39	0	47
Total Volume	71	18	22	111	20	289	164	473	1	227	125	353	50	162	0	212
% App. Total	64	16.2	19.8		4.2	61.1	34.7		0.3	64.3	35.4		23.6	76.4	0	
PHF	.807	.563	.611	.816	.625	.938	.732	.931	.250	.709	.694	.774	.735	.711	.000	.716

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

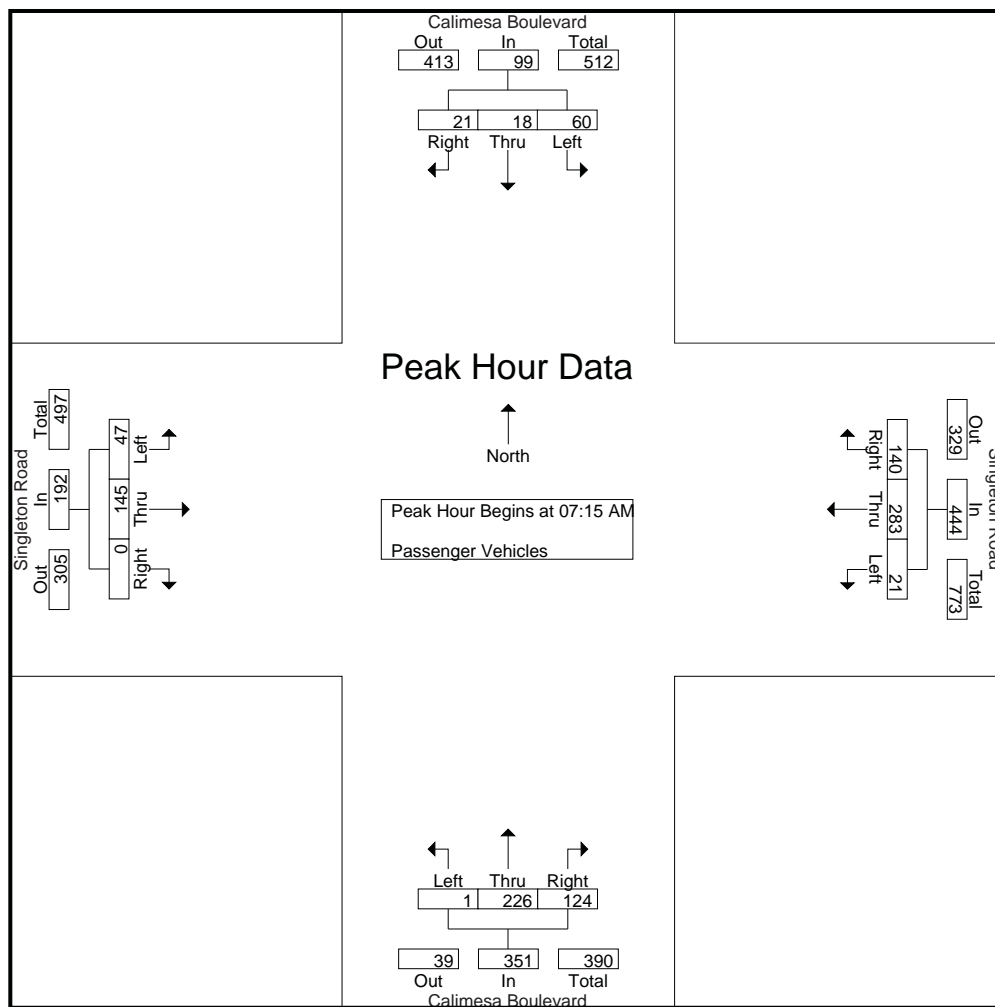
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	3	1	7	5	66	56	127	0	7	7	14	7	41	0	48	196
07:15 AM	15	0	5	20	5	70	47	122	0	80	34	114	9	27	0	36	292
07:30 AM	16	5	8	29	1	74	37	112	0	65	44	109	12	23	0	35	285
07:45 AM	12	8	5	25	8	77	23	108	1	63	39	103	9	38	0	47	283
Total	46	16	19	81	19	287	163	469	1	215	124	340	37	129	0	166	1056
08:00 AM	17	5	3	25	7	62	33	102	0	18	7	25	17	57	0	74	226
08:15 AM	19	2	5	26	6	48	24	78	1	7	5	13	15	28	0	43	160
08:30 AM	22	3	9	34	2	53	28	83	1	12	2	15	8	38	0	46	178
08:45 AM	13	8	2	23	4	37	18	59	0	10	2	12	3	41	0	44	138
Total	71	18	19	108	19	200	103	322	2	47	16	65	43	164	0	207	702
Grand Total	117	34	38	189	38	487	266	791	3	262	140	405	80	293	0	373	1758
Apprch %	61.9	18	20.1		4.8	61.6	33.6		0.7	64.7	34.6		21.4	78.6	0		
Total %	6.7	1.9	2.2	10.8	2.2	27.7	15.1	45	0.2	14.9	8	23	4.6	16.7	0	21.2	

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	15	0	5	20	5	70	<b>47</b>	<b>122</b>	0	<b>80</b>	34	<b>114</b>	9	27	0	36	<b>292</b>
07:30 AM	16	5	<b>8</b>	<b>29</b>	1	74	37	112	0	65	<b>44</b>	109	12	23	0	35	285
07:45 AM	12	<b>8</b>	5	25	<b>8</b>	<b>77</b>	23	108	<b>1</b>	63	39	103	9	38	0	47	283
08:00 AM	<b>17</b>	5	3	25	7	62	33	102	0	18	7	25	<b>17</b>	<b>57</b>	0	<b>74</b>	226
Total Volume	60	18	21	99	21	283	140	444	1	226	124	351	47	145	0	192	1086
% App. Total	60.6	18.2	21.2		4.7	63.7	31.5		0.3	64.4	35.3		24.5	75.5	0		
PHF	.882	.563	.656	.853	.656	.919	.745	.910	.250	.706	.705	.770	.691	.636	.000	.649	.930

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	15	0	5	20	5	70	<b>47</b>	<b>122</b>	0	<b>80</b>	34	<b>114</b>	9	27	0	36
+15 mins.	16	5	<b>8</b>	<b>29</b>	1	74	37	112	0	65	<b>44</b>	109	12	23	0	35
+30 mins.	12	<b>8</b>	5	25	<b>8</b>	<b>77</b>	23	108	<b>1</b>	63	39	103	9	38	0	47
+45 mins.	<b>17</b>	5	3	25	7	62	33	102	0	18	7	25	<b>17</b>	<b>57</b>	0	<b>74</b>
Total Volume	60	18	21	99	21	283	140	444	1	226	124	351	47	145	0	192
% App. Total	60.6	18.2	21.2		4.7	63.7	31.5		0.3	64.4	35.3		24.5	75.5	0	
PHF	.882	.563	.656	.853	.656	.919	.745	.910	.250	.706	.705	.770	.691	.636	.000	.649

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	0	0	1	0	0	0	0	1	0	2	3	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	1	0	1	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	2	1	4	1	0	3	4	0	1	0	1	10
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	1	1	3	2	6	0	0	0	0	1	0	0	1	8
08:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	1	1	4	3	8	0	0	0	0	1	1	0	2	11
Grand Total	2	0	0	2	2	6	4	12	1	0	3	4	1	2	0	3	21
Apprch %	100	0	0		16.7	50	33.3		25	0	75		33.3	66.7	0		
Total %	9.5	0	0	9.5	9.5	28.6	19	57.1	4.8	0	14.3	19	4.8	9.5	0	14.3	

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	1	0	1	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	2	1	4	0	0	1	1	0	1	0	1	6
% App. Total	0	0	0		25	50	25		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.250	.250	.250	.333	.000	.000	.250	.250	.000	.250	.000	.250	.300

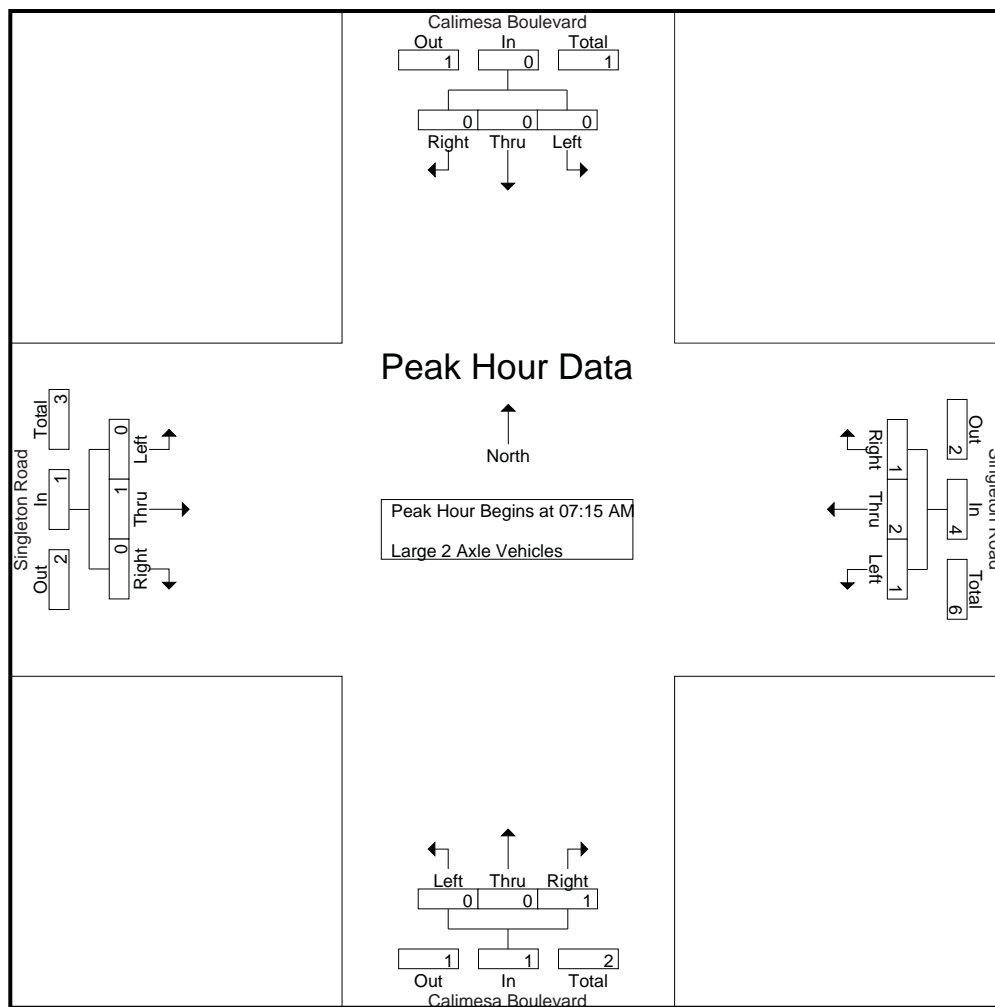
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



**Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1**  
**Peak Hour for Each Approach Begins at:**

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	2	0	3	0	0	1	1	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	2	1	4	0	0	1	1	0	1	0	1
% App. Total	0	0	0	0	25	50	25		0	0	100		0	100	0	
PHF	.000	.000	.000	.000	.250	.250	.250	.333	.000	.000	.250	.250	.000	.250	.000	.250

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

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

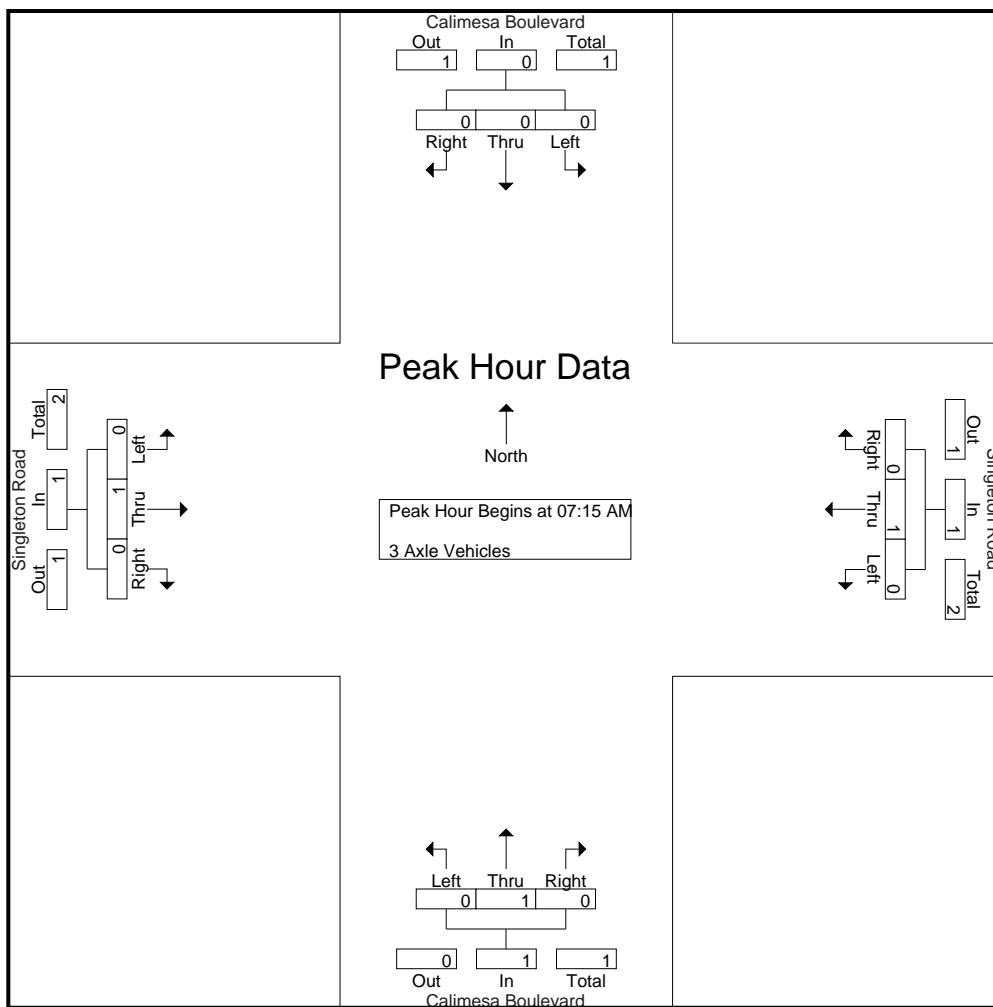
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	3
% App. Total	0	0	0		0	100	0		0	100	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.750

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	33.3	0	33.3	0	0	0	0	0	66.7	0	66.7	

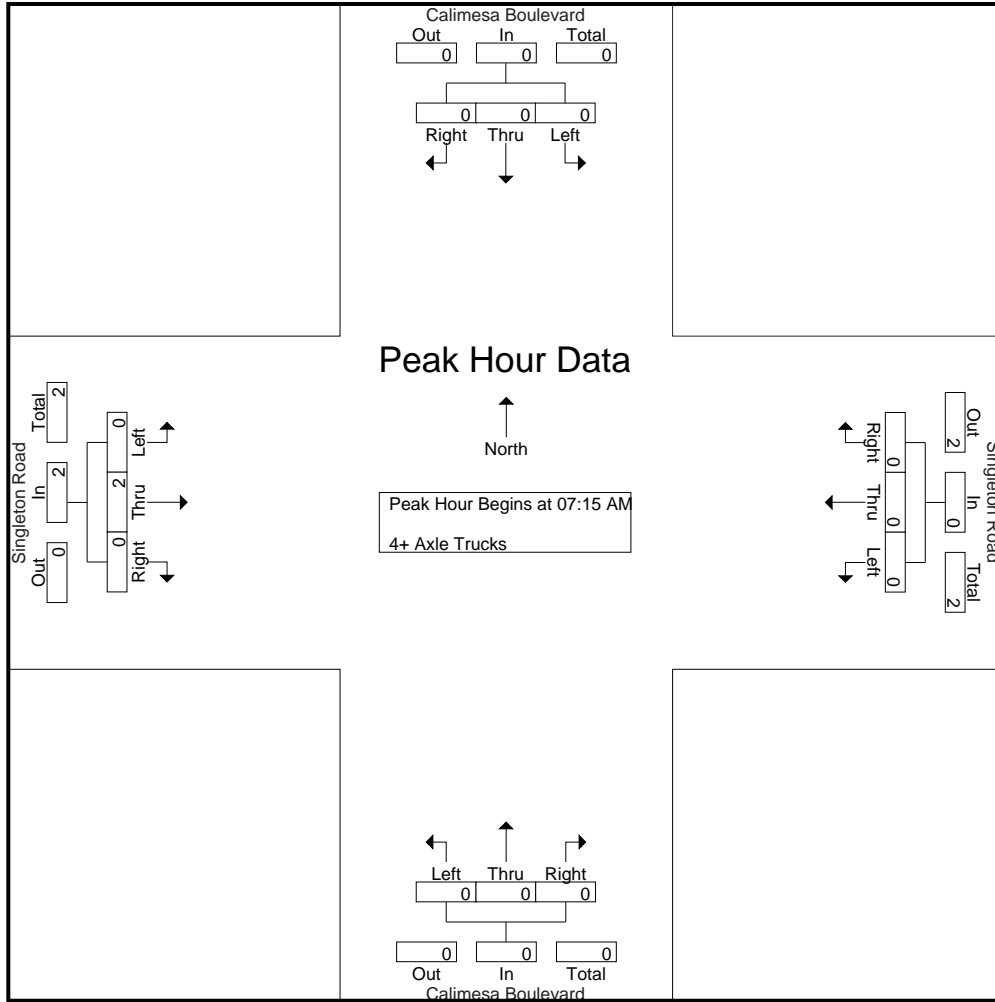
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

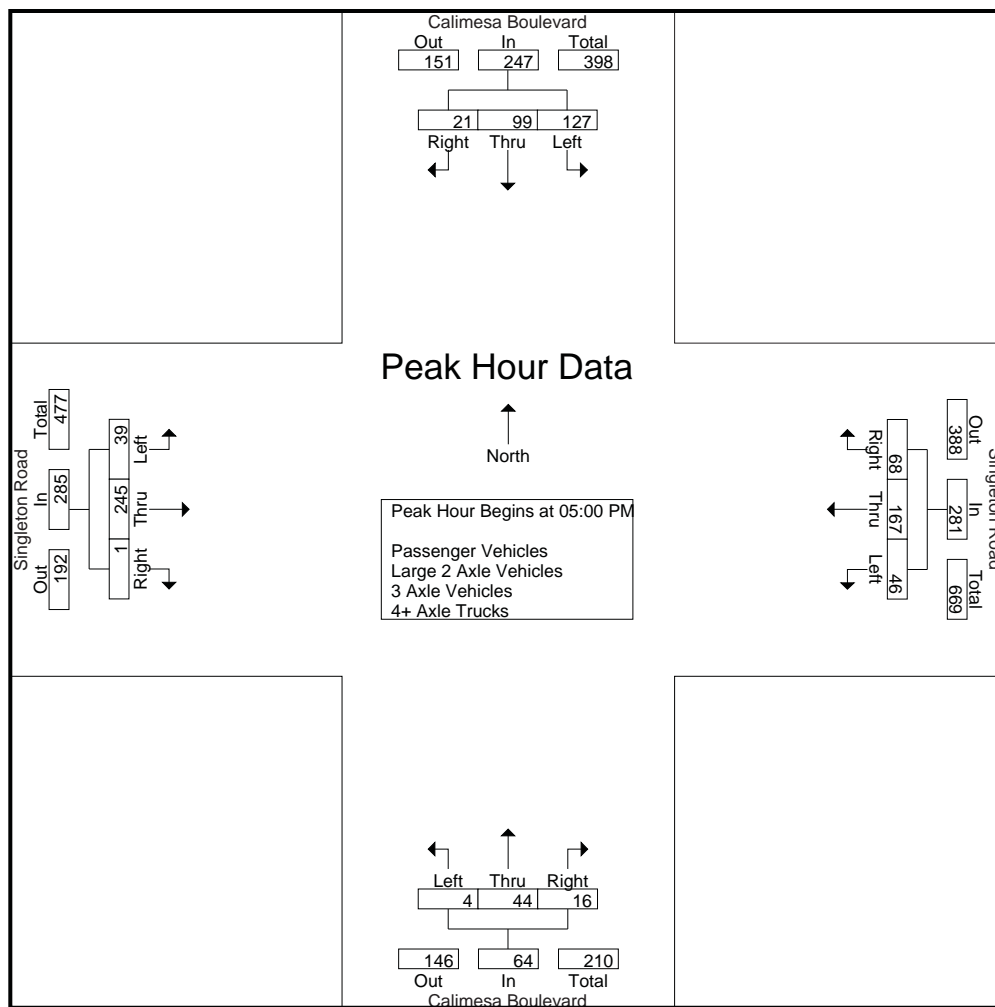
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	24	23	5	52	7	49	24	80	0	13	13	26	2	67	0	69	227
04:15 PM	36	20	3	59	5	32	22	59	0	9	13	22	8	59	0	67	207
04:30 PM	21	26	3	50	7	44	27	78	0	12	4	16	5	63	1	69	213
04:45 PM	21	23	6	50	8	28	19	55	0	5	9	14	6	63	1	70	189
<b>Total</b>	<b>102</b>	<b>92</b>	<b>17</b>	<b>211</b>	<b>27</b>	<b>153</b>	<b>92</b>	<b>272</b>	<b>0</b>	<b>39</b>	<b>39</b>	<b>78</b>	<b>21</b>	<b>252</b>	<b>2</b>	<b>275</b>	<b>836</b>
05:00 PM	26	23	8	57	10	39	12	61	0	9	3	12	20	61	1	82	212
05:15 PM	35	31	6	72	9	40	10	59	0	16	5	21	4	71	0	75	227
05:30 PM	34	27	4	65	15	47	25	87	4	8	2	14	8	53	0	61	227
05:45 PM	32	18	3	53	12	41	21	74	0	11	6	17	7	60	0	67	211
<b>Total</b>	<b>127</b>	<b>99</b>	<b>21</b>	<b>247</b>	<b>46</b>	<b>167</b>	<b>68</b>	<b>281</b>	<b>4</b>	<b>44</b>	<b>16</b>	<b>64</b>	<b>39</b>	<b>245</b>	<b>1</b>	<b>285</b>	<b>877</b>
<b>Grand Total</b>	<b>229</b>	<b>191</b>	<b>38</b>	<b>458</b>	<b>73</b>	<b>320</b>	<b>160</b>	<b>553</b>	<b>4</b>	<b>83</b>	<b>55</b>	<b>142</b>	<b>60</b>	<b>497</b>	<b>3</b>	<b>560</b>	<b>1713</b>
Apprch %	50	41.7	8.3		13.2	57.9	28.9		2.8	58.5	38.7		10.7	88.8	0.5		
Total %	13.4	11.2	2.2	26.7	4.3	18.7	9.3	32.3	0.2	4.8	3.2	8.3	3.5	29	0.2	32.7	
Passenger Vehicles	227	188	38	453	67	314	156	537	4	82	55	141	60	490	3	553	1684
% Passenger Vehicles	99.1	98.4	100	98.9	91.8	98.1	97.5	97.1	100	98.8	100	99.3	100	98.6	100	98.8	98.3
Large 2 Axle Vehicles	2	2	0	4	3	5	4	12	0	1	0	1	0	4	0	4	21
% Large 2 Axle Vehicles	0.9	1	0	0.9	4.1	1.6	2.5	2.2	0	1.2	0	0.7	0	0.8	0	0.7	1.2
3 Axle Vehicles	0	1	0	1	3	1	0	4	0	0	0	0	0	2	0	2	7
% 3 Axle Vehicles	0	0.5	0	0.2	4.1	0.3	0	0.7	0	0	0	0	0	0.4	0	0.4	0.4
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.1

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	26	23	<b>8</b>	57	10	39	12	61	0	9	3	12	<b>20</b>	61	<b>1</b>	<b>82</b>	212
05:15 PM	<b>35</b>	<b>31</b>	6	<b>72</b>	9	40	10	59	0	<b>16</b>	5	<b>21</b>	4	<b>71</b>	0	75	<b>227</b>
05:30 PM	34	27	4	65	<b>15</b>	<b>47</b>	<b>25</b>	<b>87</b>	<b>4</b>	8	2	14	8	53	0	61	227
05:45 PM	32	18	3	53	12	41	21	74	0	11	<b>6</b>	17	7	60	0	67	211
Total Volume	127	99	21	247	46	167	68	281	4	44	16	64	39	245	1	285	877
% App. Total	51.4	40.1	8.5		16.4	59.4	24.2		6.2	68.8	25		13.7	86	0.4		
PHF	.907	.798	.656	.858	.767	.888	.680	.807	.250	.688	.667	.762	.488	.863	.250	.869	.966

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM				05:00 PM				04:00 PM				04:30 PM			
+0 mins.	26	23	8	57	10	39	12	61	0	13	13	26	5	63	1	69
+15 mins.	35	31	6	72	9	40	10	59	0	9	13	22	6	63	1	70
+30 mins.	34	27	4	65	15	47	25	87	0	12	4	16	20	61	1	82
+45 mins.	32	18	3	53	12	41	21	74	0	5	9	14	4	71	0	75
Total Volume	127	99	21	247	46	167	68	281	0	39	39	78	35	258	3	296
% App. Total	51.4	40.1	8.5		16.4	59.4	24.2		0	50	50		11.8	87.2	1	
PHF	.907	.798	.656	.858	.767	.888	.680	.807	.000	.750	.750	.750	.438	.908	.750	.902

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	24	22	5	51	6	47	24	77	0	13	13	26	2	67	0	69	223
04:15 PM	36	20	3	59	5	31	22	58	0	9	13	22	8	59	0	67	206
04:30 PM	21	26	3	50	5	44	26	75	0	12	4	16	5	61	1	67	208
04:45 PM	21	22	6	49	8	27	19	54	0	5	9	14	6	61	1	68	185
Total	102	90	17	209	24	149	91	264	0	39	39	78	21	248	2	271	822
05:00 PM	24	22	8	54	10	38	12	60	0	9	3	12	20	59	1	80	206
05:15 PM	35	31	6	72	9	40	10	59	0	16	5	21	4	70	0	74	226
05:30 PM	34	27	4	65	13	46	25	84	4	8	2	14	8	53	0	61	224
05:45 PM	32	18	3	53	11	41	18	70	0	10	6	16	7	60	0	67	206
Total	125	98	21	244	43	165	65	273	4	43	16	63	39	242	1	282	862
Grand Total	227	188	38	453	67	314	156	537	4	82	55	141	60	490	3	553	1684
Apprch %	50.1	41.5	8.4		12.5	58.5	29.1		2.8	58.2	39		10.8	88.6	0.5		
Total %	13.5	11.2	2.3	26.9	4	18.6	9.3	31.9	0.2	4.9	3.3	8.4	3.6	29.1	0.2	32.8	

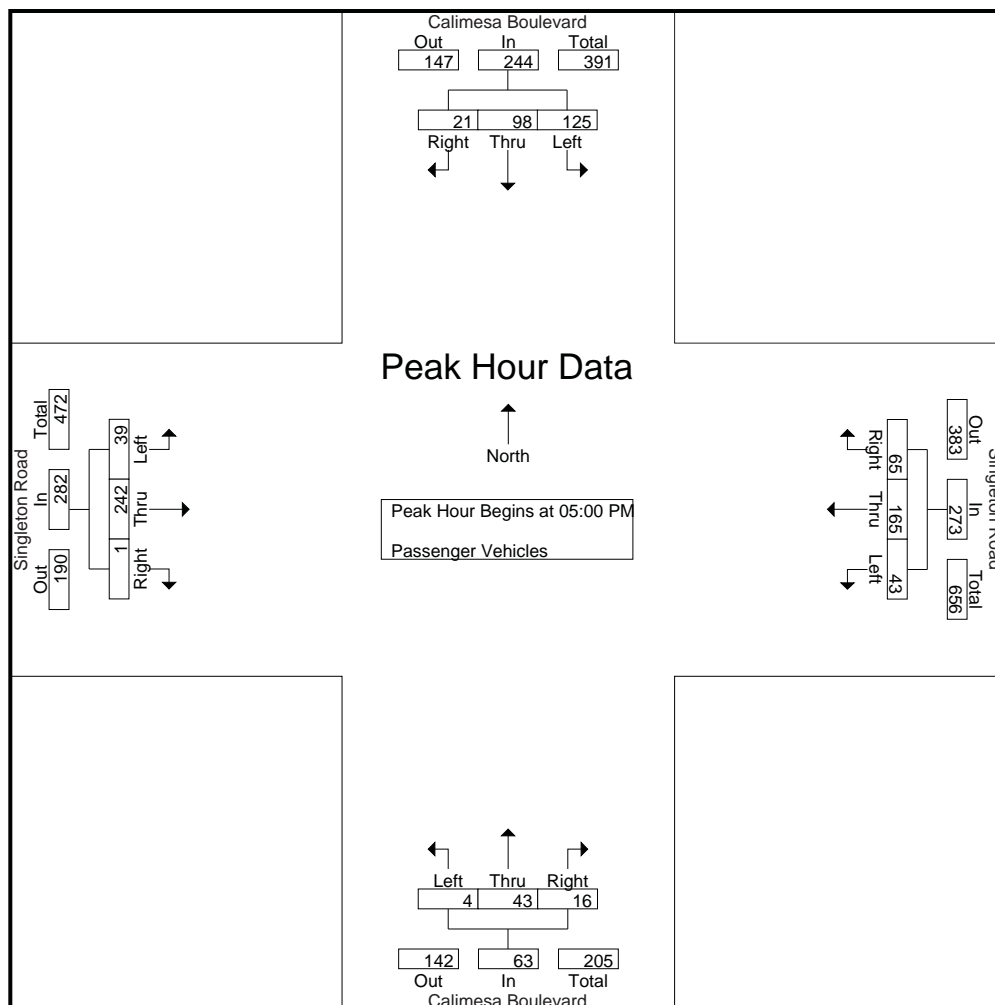
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	24	22	<b>8</b>	54	10	38	12	60	0	9	3	12	<b>20</b>	59	<b>1</b>	<b>80</b>	206
05:15 PM	<b>35</b>	<b>31</b>	6	<b>72</b>	9	40	10	59	0	<b>16</b>	5	<b>21</b>	4	<b>70</b>	0	74	<b>226</b>
05:30 PM	34	27	4	65	<b>13</b>	<b>46</b>	<b>25</b>	<b>84</b>	<b>4</b>	8	2	14	8	53	0	61	224
05:45 PM	32	18	3	53	11	41	18	70	0	10	<b>6</b>	16	7	60	0	67	206
Total Volume	125	98	21	244	43	165	65	273	4	43	16	63	39	242	1	282	862
% App. Total	51.2	40.2	8.6		15.8	60.4	23.8		6.3	68.3	25.4		13.8	85.8	0.4		
PHF	.893	.790	.656	.847	.827	.897	.650	.813	.250	.672	.667	.750	.488	.864	.250	.881	.954



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	24	22	8	54	10	38	12	60	0	9	3	12	20	59	1	80
+15 mins.	35	31	6	72	9	40	10	59	0	16	5	21	4	70	0	74
+30 mins.	34	27	4	65	13	46	25	84	4	8	2	14	8	53	0	61
+45 mins.	32	18	3	53	11	41	18	70	0	10	6	16	7	60	0	67
Total Volume	125	98	21	244	43	165	65	273	4	43	16	63	39	242	1	282
% App. Total	51.2	40.2	8.6		15.8	60.4	23.8		6.3	68.3	25.4		13.8	85.8	0.4	
PHF	.893	.790	.656	.847	.827	.897	.650	.813	.250	.672	.667	.750	.488	.864	.250	.881

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

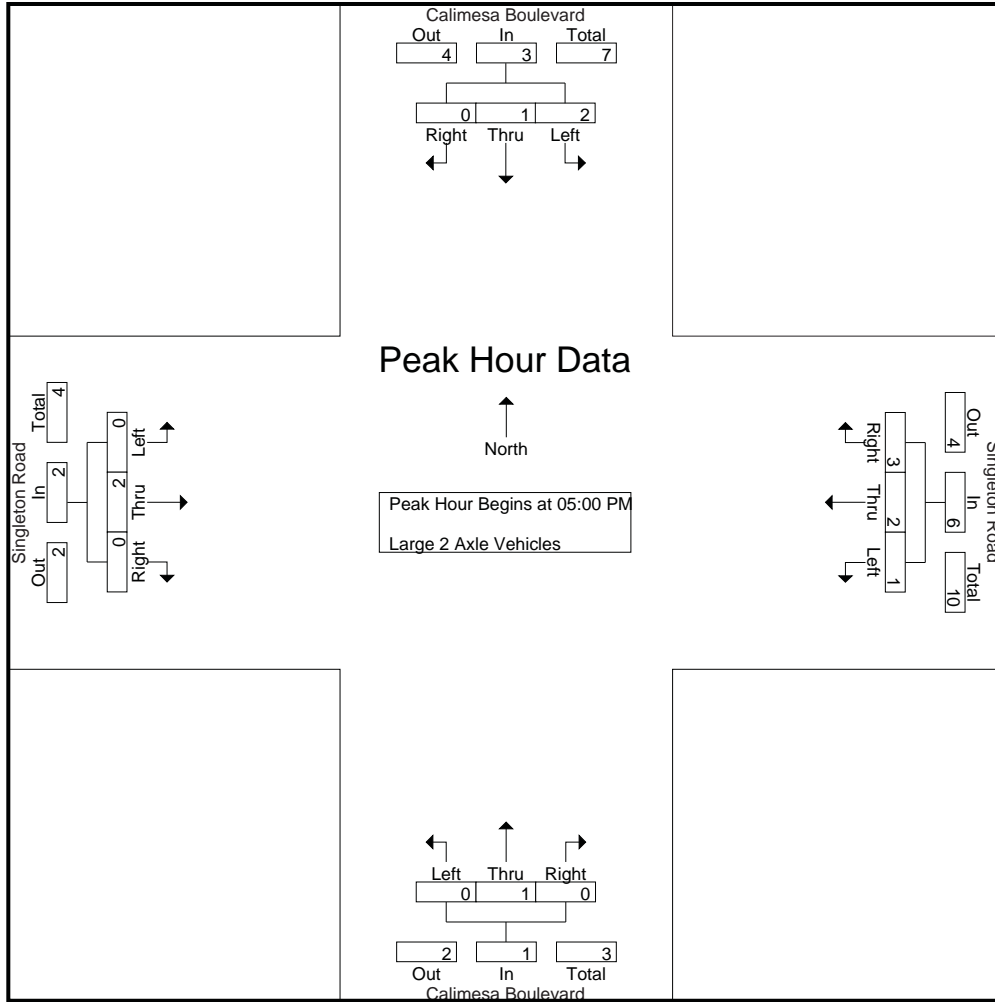
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:00 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	2	0	1	3	0	0	0	0	0	1	0	1	4	
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2	
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>9</b>	
05:00 PM	2	1	0	3	0	1	0	1	0	0	0	0	0	1	0	1	5	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	
05:45 PM	0	0	0	0	1	0	3	4	0	1	0	1	0	0	0	0	5	
<b>Total</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>12</b>	
<b>Grand Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>21</b>	
Apprch %	50	50	0		25	41.7	33.3		0	100	0		0	100	0			
Total %	9.5	9.5	0	19	14.3	23.8	19	57.1	0	4.8	0	4.8	0	19	0	19		

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	1	0	3	0	1	0	1	0	0	0	0	0	1	0	1	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	1	0	3	4	0	1	0	1	0	0	0	0	5
Total Volume	2	1	0	3	1	2	3	6	0	1	0	1	0	2	0	2	12
% App. Total	66.7	33.3	0		16.7	33.3	50		0	100	0		0	100	0		
PHF	.250	.250	.000	.250	.250	.500	.250	.375	.000	.250	.000	.250	.000	.500	.000	.500	.600

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	2	1	0	3	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	0	3	4	0	1	0	1	0	0	0	0
Total Volume	2	1	0	3	1	2	3	6	0	1	0	1	0	2	0	2
% App. Total	66.7	33.3	0		16.7	33.3	50		0	100	0		0	100	0	
PHF	.250	.250	.000	.250	.250	.500	.250	.375	.000	.250	.000	.250	.000	.500	.000	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>5</b>
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Grand Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>7</b>
Apprch %	0	100	0		75	25	0		0	0	0		0	100	0		
Total %	0	14.3	0	14.3	42.9	14.3	0	57.1	0	0	0	0	0	28.6	0	28.6	

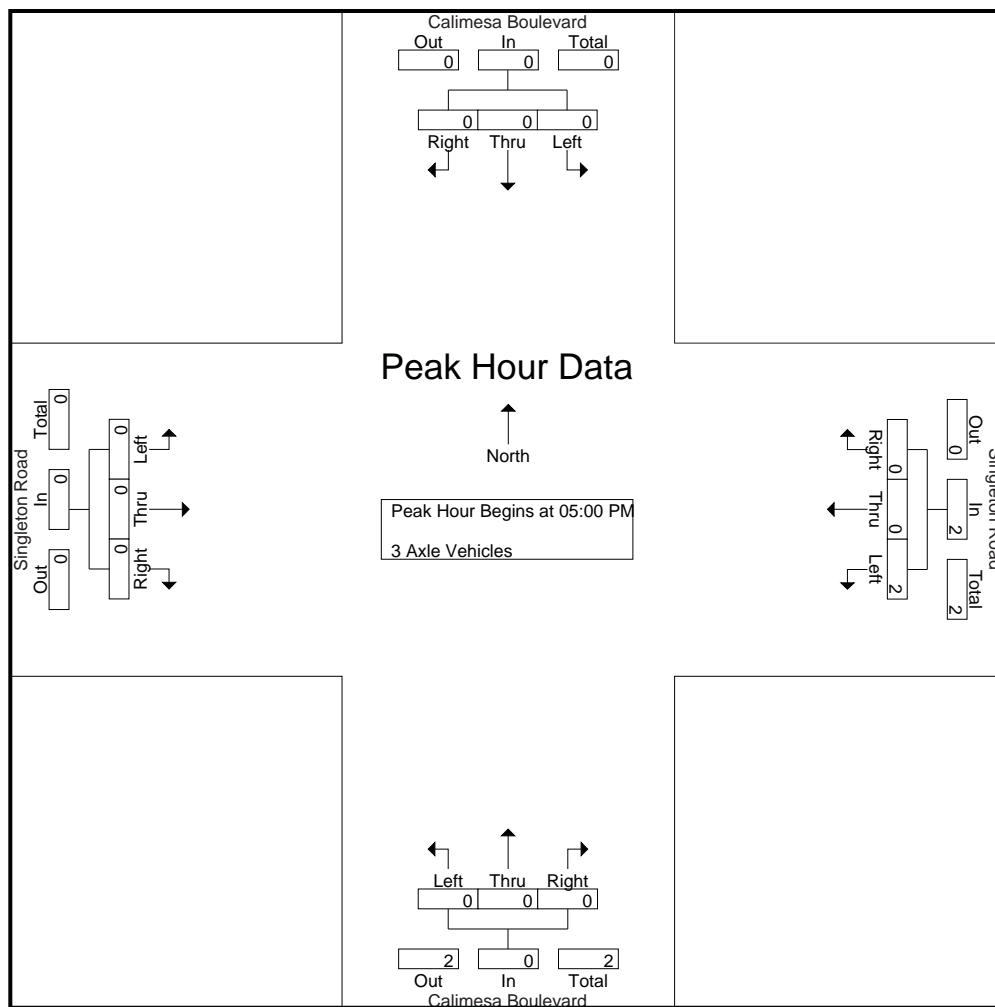
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
% App. Total	0	0	0		100	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

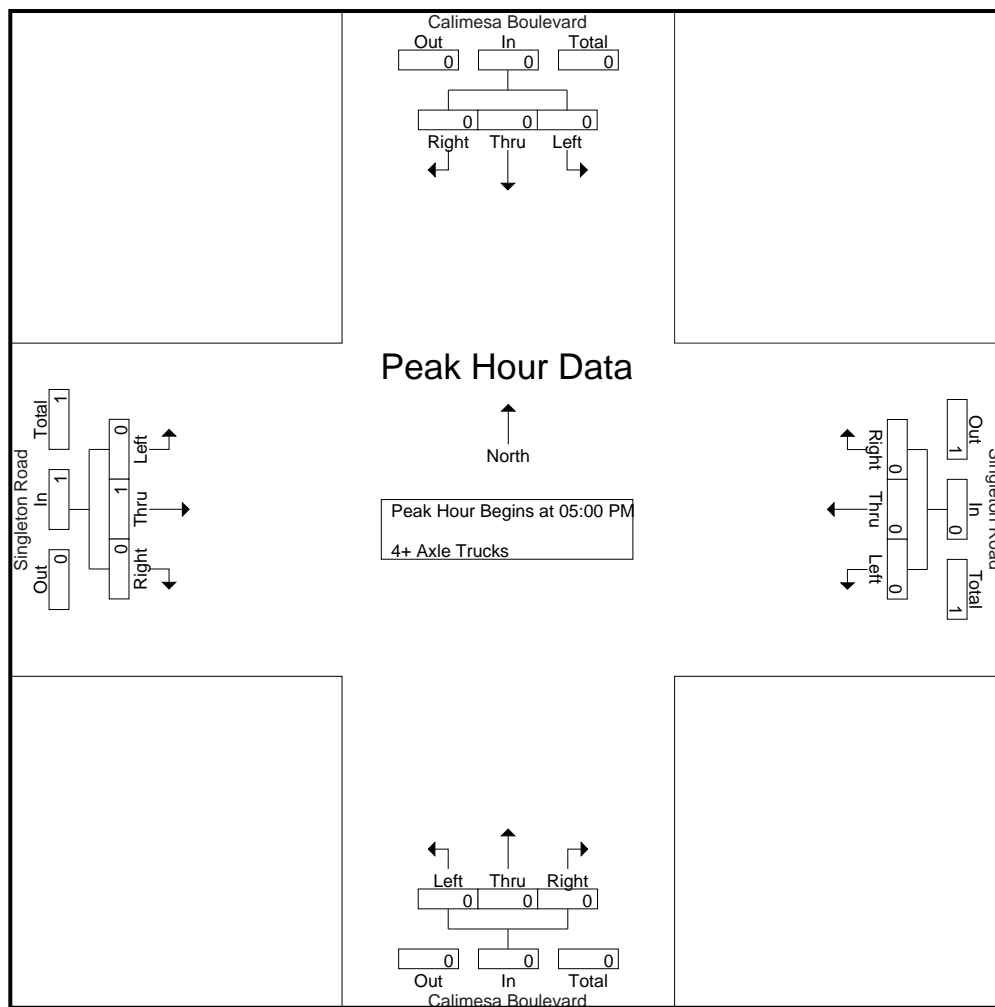
Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Cal\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Location: Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### PEDESTRIANS

	North Leg Calimesa Boulevard Pedestrians	East Leg Singleton Road Pedestrians	South Leg Calimesa Boulevard Pedestrians	West Leg Singleton Road Pedestrians	
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Calimesa Boulevard Pedestrians	East Leg Singleton Road Pedestrians	South Leg Calimesa Boulevard Pedestrians	West Leg Singleton Road Pedestrians	
4:00 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
TOTAL VOLUMES:	0	0	0	0	0



Location: Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### BICYCLES

	Southbound Calimesa Boulevard			Westbound Singleton Road			Northbound Calimesa Boulevard			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
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	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES:	0	0	0	2	0	2	0	0	0	0	0	0	4

	Southbound Calimesa Boulevard			Westbound Singleton Road			Northbound Calimesa Boulevard			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	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	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	1	1	1	0	0	0	0	1	0	0	0	0	4

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Beckwith Avenue  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Beck\_Sing AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

Start Time	Singleton Road Westbound			Beckwith Avenue Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	1	140	141	6	1	7	55	1	56	204
07:15 AM	1	117	118	5	0	5	74	4	78	201
07:30 AM	0	112	112	2	0	2	84	2	86	200
07:45 AM	1	100	101	7	1	8	84	4	88	197
<b>Total</b>	<b>3</b>	<b>469</b>	<b>472</b>	<b>20</b>	<b>2</b>	<b>22</b>	<b>297</b>	<b>11</b>	<b>308</b>	<b>802</b>
08:00 AM	1	103	104	4	0	4	77	1	78	186
08:15 AM	2	74	76	7	1	8	46	6	52	136
08:30 AM	0	74	74	10	2	12	54	5	59	145
08:45 AM	0	56	56	7	2	9	44	6	50	115
<b>Total</b>	<b>3</b>	<b>307</b>	<b>310</b>	<b>28</b>	<b>5</b>	<b>33</b>	<b>221</b>	<b>18</b>	<b>239</b>	<b>582</b>
<b>Grand Total</b>	<b>6</b>	<b>776</b>	<b>782</b>	<b>48</b>	<b>7</b>	<b>55</b>	<b>518</b>	<b>29</b>	<b>547</b>	<b>1384</b>
Apprch %	0.8	99.2		87.3	12.7		94.7	5.3		
Total %	0.4	56.1	56.5	3.5	0.5	4	37.4	2.1	39.5	

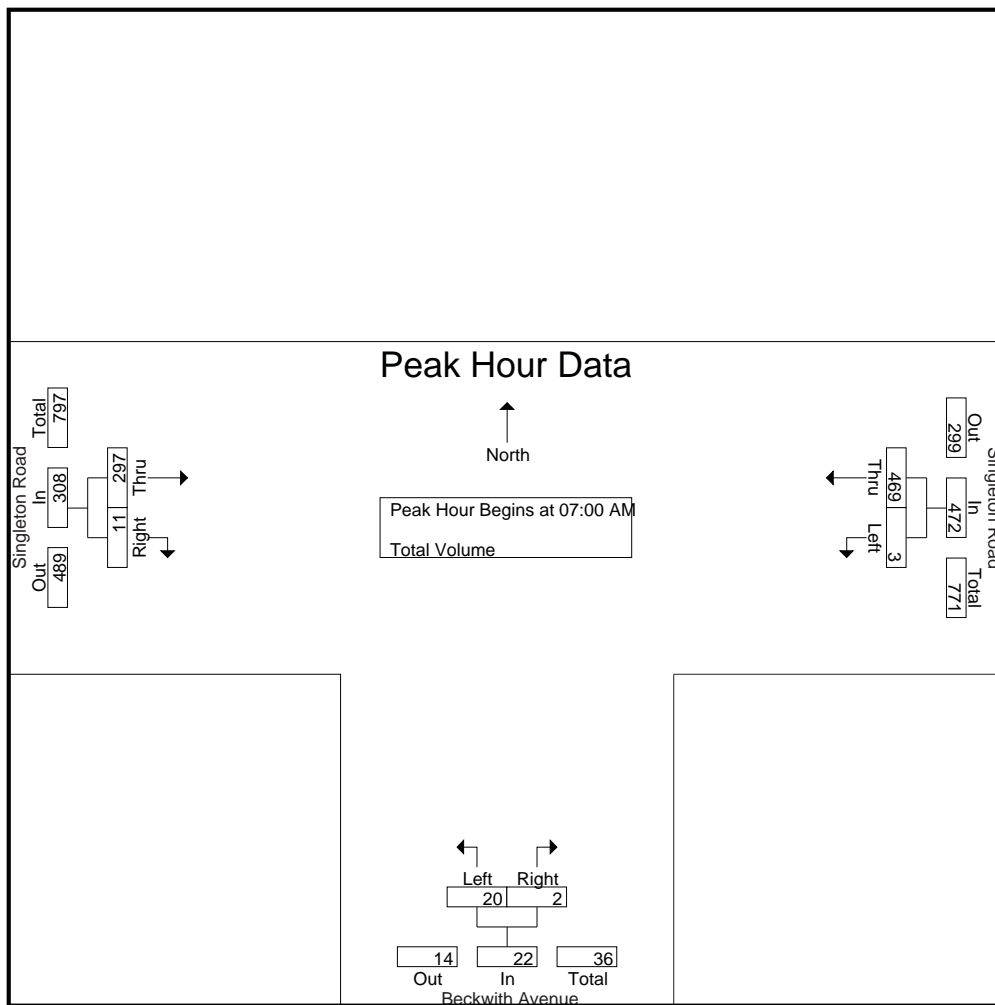
Start Time	Singleton Road Westbound			Beckwith Avenue Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	<b>1</b>	<b>140</b>	<b>141</b>	6	1	7	55	1	56	<b>204</b>
07:15 AM	1	117	118	5	0	5	74	<b>4</b>	78	201
07:30 AM	0	112	112	2	0	2	<b>84</b>	2	86	200
07:45 AM	1	100	101	<b>7</b>	1	<b>8</b>	84	4	<b>88</b>	197
<b>Total Volume</b>	<b>3</b>	<b>469</b>	<b>472</b>	<b>20</b>	<b>2</b>	<b>22</b>	<b>297</b>	<b>11</b>	<b>308</b>	<b>802</b>
% App. Total	0.6	99.4		90.9	9.1		96.4	3.6		
PHF	.750	.838	.837	.714	.500	.688	.884	.688	.875	.983

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Beckwith Avenue  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Beck\_Sing AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM			08:00 AM			07:15 AM		
+0 mins.	1	140	141	4	0	4	74	4	78
+15 mins.	1	117	118	7	1	8	84	2	86
+30 mins.	0	112	112	10	2	12	84	4	88
+45 mins.	1	100	101	7	2	9	77	1	78
Total Volume	3	469	472	28	5	33	319	11	330
% App. Total	0.6	99.4		84.8	15.2		96.7	3.3	
PHF	.750	.838	.837	.700	.625	.688	.949	.688	.938

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Beckwith Avenue  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Beck\_Sing PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

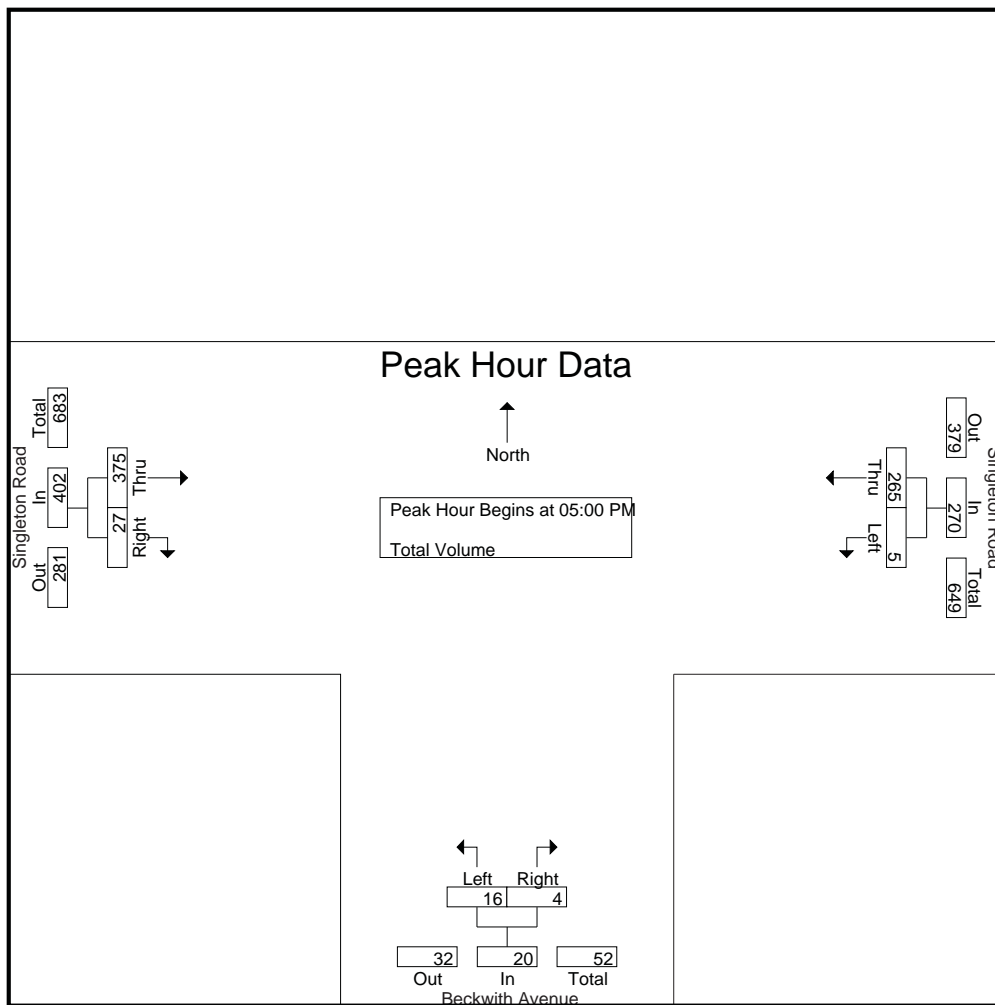
Start Time	Singleton Road Westbound			Beckwith Avenue Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	3	72	75	2	4	6	100	3	103	184
04:15 PM	2	50	52	9	4	13	103	4	107	172
04:30 PM	1	67	68	9	1	10	88	0	88	166
04:45 PM	0	48	48	11	4	15	85	10	95	158
Total	6	237	243	31	13	44	376	17	393	680
05:00 PM	0	57	57	5	2	7	85	5	90	154
05:15 PM	1	60	61	1	0	1	106	11	117	179
05:30 PM	2	80	82	6	2	8	86	7	93	183
05:45 PM	2	68	70	4	0	4	98	4	102	176
Total	5	265	270	16	4	20	375	27	402	692
Grand Total	11	502	513	47	17	64	751	44	795	1372
Apprch %	2.1	97.9		73.4	26.6		94.5	5.5		
Total %	0.8	36.6	37.4	3.4	1.2	4.7	54.7	3.2	57.9	

Start Time	Singleton Road Westbound			Beckwith Avenue Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:00 PM	0	57	57	5	2	7	85	5	90	154
05:15 PM	1	60	61	1	0	1	<b>106</b>	<b>11</b>	<b>117</b>	179
05:30 PM	<b>2</b>	<b>80</b>	<b>82</b>	<b>6</b>	2	<b>8</b>	86	7	93	<b>183</b>
05:45 PM	2	68	70	4	0	4	98	4	102	176
Total Volume	5	265	270	16	4	20	375	27	402	692
% App. Total	1.9	98.1		80	20		93.3	6.7		
PHF	.625	.828	.823	.667	.500	.625	.884	.614	.859	.945

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Beckwith Avenue  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Beck\_Sing PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			04:15 PM			05:00 PM		
+0 mins.	0	57	57	9	4	13	85	5	90
+15 mins.	1	60	61	9	1	10	<b>106</b>	<b>11</b>	<b>117</b>
+30 mins.	2	<b>80</b>	<b>82</b>	<b>11</b>	4	<b>15</b>	86	7	93
+45 mins.	2	68	70	5	2	7	98	4	102
Total Volume	5	265	270	34	11	45	375	27	402
% App. Total	1.9	98.1		75.6	24.4		93.3	6.7	
PHF	.625	.828	.823	.773	.688	.750	.884	.614	.859

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Singleton Canyon Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 05\_CAL\_SC\_Sing AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

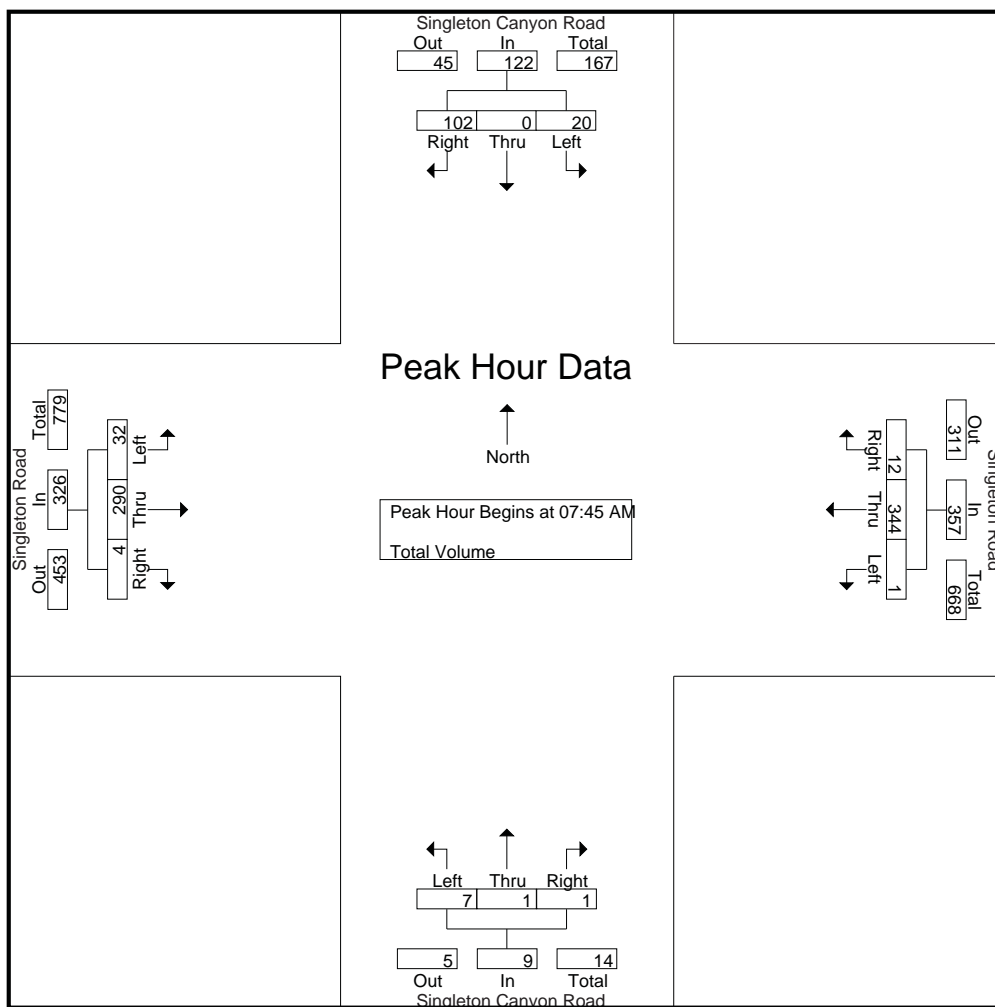
Start Time	Singleton Canyon Road Southbound				Singleton Road Westbound				Singleton Canyon Road Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	22	22	0	44	1	45	0	0	0	0	2	22	0	24	91
07:15 AM	1	0	28	29	1	68	2	71	0	0	0	0	5	34	0	39	139
07:30 AM	4	0	47	51	1	81	1	83	0	0	0	0	3	44	0	47	181
07:45 AM	3	0	35	38	0	94	2	96	1	0	0	1	4	65	0	69	204
Total	8	0	132	140	2	287	6	295	1	0	0	1	14	165	0	179	615
08:00 AM	5	0	25	30	1	89	3	93	0	0	0	0	12	78	1	91	214
08:15 AM	5	0	23	28	0	85	3	88	1	0	1	2	6	71	1	78	196
08:30 AM	7	0	19	26	0	76	4	80	5	1	0	6	10	76	2	88	200
08:45 AM	3	0	8	11	1	72	3	76	0	0	0	0	9	42	0	51	138
Total	20	0	75	95	2	322	13	337	6	1	1	8	37	267	4	308	748
Grand Total	28	0	207	235	4	609	19	632	7	1	1	9	51	432	4	487	1363
Apprch %	11.9	0	88.1		0.6	96.4	3		77.8	11.1	11.1		10.5	88.7	0.8		
Total %	2.1	0	15.2	17.2	0.3	44.7	1.4	46.4	0.5	0.1	0.1	0.7	3.7	31.7	0.3	35.7	

Start Time	Singleton Canyon Road Southbound				Singleton Road Westbound				Singleton Canyon Road Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:45 AM	3	0	<b>35</b>	<b>38</b>	0	<b>94</b>	2	<b>96</b>	1	0	0	1	4	65	0	69	204
08:00 AM	5	0	25	30	1	89	3	93	0	0	0	0	<b>12</b>	<b>78</b>	1	<b>91</b>	<b>214</b>
08:15 AM	5	0	23	28	0	85	3	88	1	0	1	2	6	71	1	78	196
08:30 AM	7	0	19	26	0	76	4	80	5	1	0	6	10	76	2	88	200
Total Volume	20	0	102	122	1	344	12	357	7	1	1	9	32	290	4	326	814
% App. Total	16.4	0	83.6		0.3	96.4	3.4		77.8	11.1	11.1		9.8	89	1.2		
PHF	.714	.000	.729	.803	.250	.915	.750	.930	.350	.250	.250	.375	.667	.929	.500	.896	.951

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Singleton Canyon Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 05\_CAL\_SC\_Sing AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:15 AM				07:30 AM				07:45 AM				07:45 AM			
+0 mins.	1	0	28	29	1	81	1	83	1	0	0	1	4	65	0	69
+15 mins.	4	0	47	51	0	94	2	96	0	0	0	0	12	78	1	91
+30 mins.	3	0	35	38	1	89	3	93	1	0	1	2	6	71	1	78
+45 mins.	5	0	25	30	0	85	3	88	5	1	0	6	10	76	2	88
Total Volume	13	0	135	148	2	349	9	360	7	1	1	9	32	290	4	326
% App. Total	8.8	0	91.2		0.6	96.9	2.5		77.8	11.1	11.1		9.8	89	1.2	
PHF	.650	.000	.718	.725	.500	.928	.750	.938	.350	.250	.250	.375	.667	.929	.500	.896

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Singleton Canyon Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 05\_CAL\_SC\_Sing PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

Start Time	Singleton Canyon Road Southbound				Singleton Road Westbound				Singleton Canyon Road Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	4	0	8	12	0	57	6	63	0	0	1	1	15	76	0	91	167
04:15 PM	1	0	10	11	1	55	2	58	1	0	0	1	17	77	0	94	164
04:30 PM	4	0	15	19	0	60	2	62	0	0	1	1	22	72	1	95	177
04:45 PM	7	0	7	14	0	43	3	46	0	0	0	0	30	79	0	109	169
Total	16	0	40	56	1	215	13	229	1	0	2	3	84	304	1	389	677
05:00 PM	1	0	21	22	1	49	2	52	0	0	1	1	22	69	0	91	166
05:15 PM	2	0	8	10	0	42	3	45	0	0	0	0	21	59	0	80	135
05:30 PM	3	0	5	8	0	49	2	51	0	0	0	0	34	54	1	89	148
05:45 PM	3	0	9	12	0	46	3	49	0	0	0	0	30	75	0	105	166
Total	9	0	43	52	1	186	10	197	0	0	1	1	107	257	1	365	615
Grand Total	25	0	83	108	2	401	23	426	1	0	3	4	191	561	2	754	1292
Apprch %	23.1	0	76.9		0.5	94.1	5.4		25	0	75		25.3	74.4	0.3		
Total %	1.9	0	6.4	8.4	0.2	31	1.8	33	0.1	0	0.2	0.3	14.8	43.4	0.2	58.4	

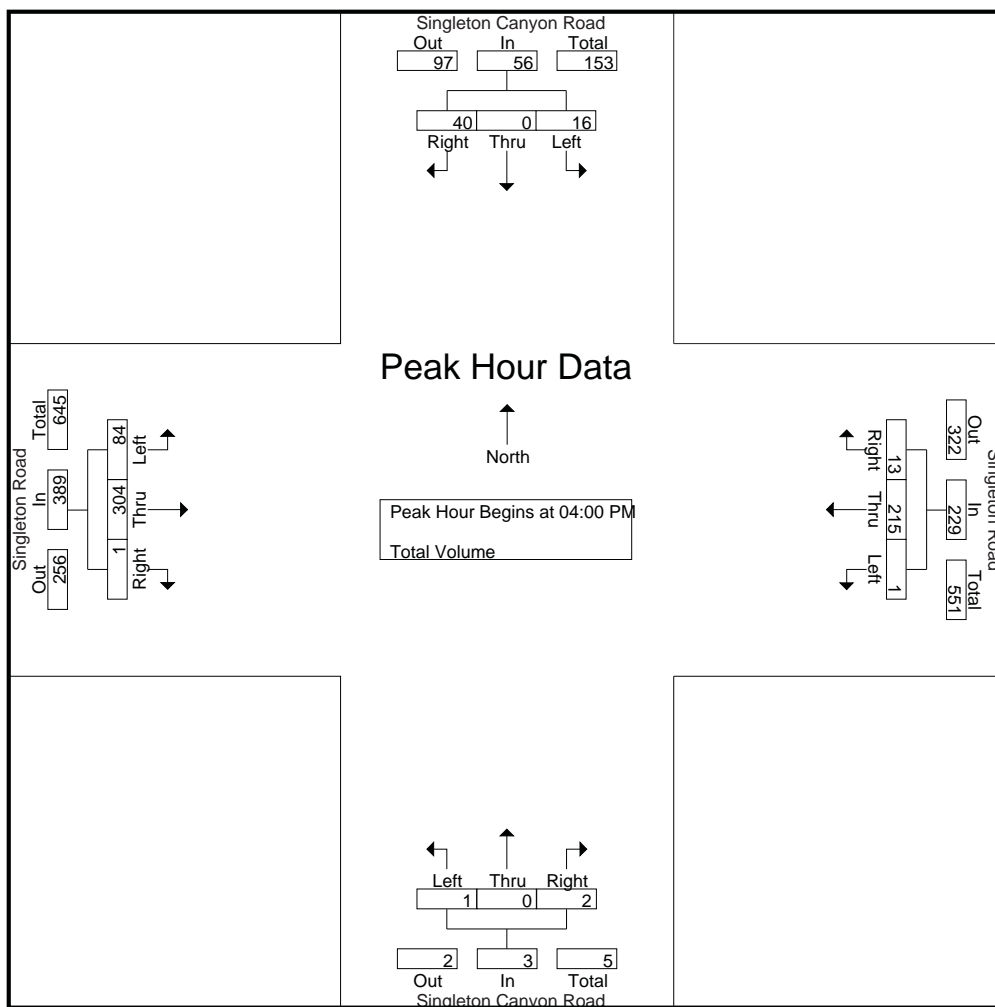
Start Time	Singleton Canyon Road Southbound				Singleton Road Westbound				Singleton Canyon Road Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	0	8	12	0	57	<b>6</b>	<b>63</b>	0	0	<b>1</b>	<b>1</b>	15	76	0	91	167
04:15 PM	1	0	10	11	1	55	2	58	1	0	0	1	17	77	0	94	164
04:30 PM	4	0	<b>15</b>	<b>19</b>	0	<b>60</b>	2	62	0	0	1	1	22	72	<b>1</b>	<b>95</b>	<b>177</b>
04:45 PM	<b>7</b>	0	7	14	0	43	3	46	0	0	0	0	<b>30</b>	<b>79</b>	0	<b>109</b>	169
Total Volume	16	0	40	56	1	215	13	229	1	0	2	3	84	304	1	389	677
% App. Total	28.6	0	71.4		0.4	93.9	5.7		33.3	0	66.7		21.6	78.1	0.3		
PHF	.571	.000	.667	.737	.250	.896	.542	.909	.250	.000	.500	.750	.700	.962	.250	.892	.956



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Singleton Canyon Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 05\_CAL\_SC\_Sing PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:15 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	1	0	10	11	0	57	<b>6</b>	<b>63</b>	0	0	<b>1</b>	<b>1</b>	15	76	0	91
+15 mins.	4	0	15	19	<b>1</b>	55	2	58	<b>1</b>	0	0	1	17	77	0	94
+30 mins.	<b>7</b>	0	7	14	0	<b>60</b>	2	62	0	0	1	1	22	72	<b>1</b>	95
+45 mins.	1	0	<b>21</b>	<b>22</b>	0	43	3	46	0	0	0	0	<b>30</b>	<b>79</b>	0	<b>109</b>
Total Volume	13	0	53	66	1	215	13	229	1	0	2	3	84	304	1	389
% App. Total	19.7	0	80.3		0.4	93.9	5.7		33.3	0	66.7		21.6	78.1	0.3	
PHF	.464	.000	.631	.750	.250	.896	.542	.909	.250	.000	.500	.750	.700	.962	.250	.892

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Sandalewood Drive/5th Street  
 Weather: Clear

File Name : 06\_CAL\_Cali\_Sand AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

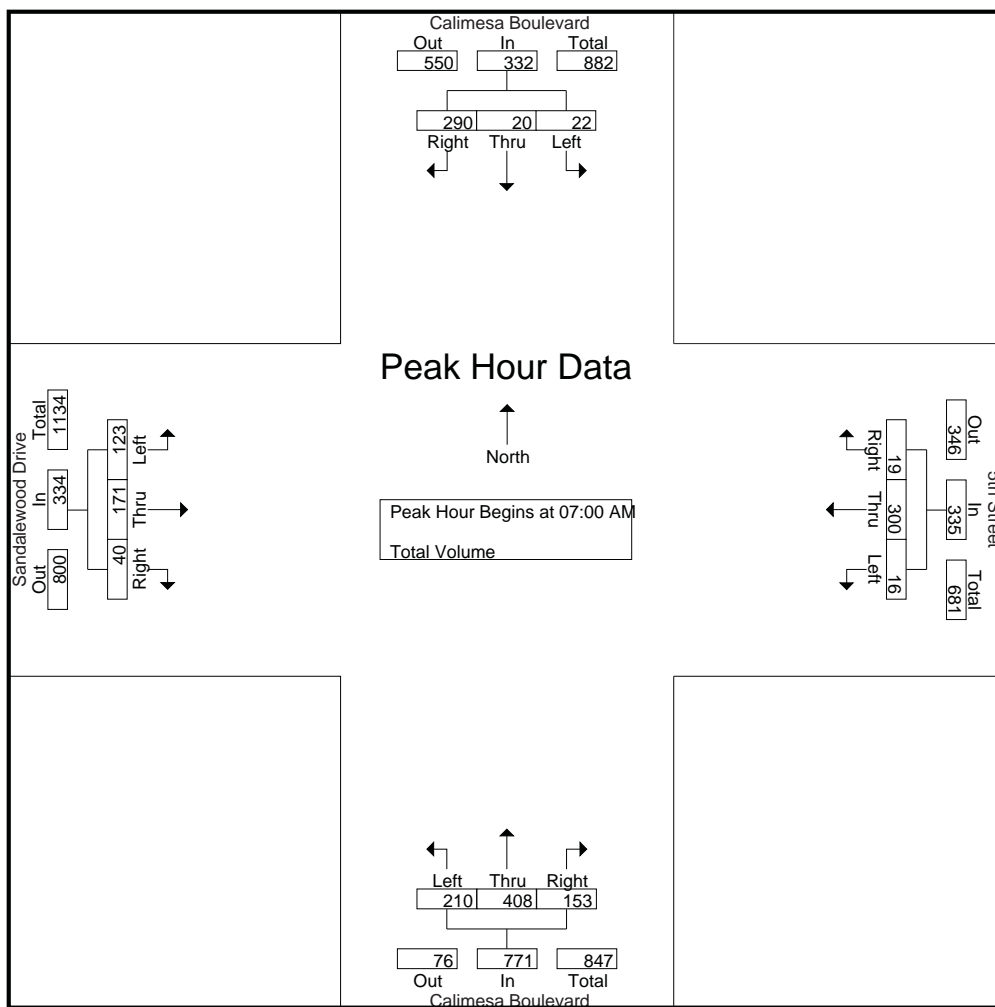
Start Time	Calimesa Boulevard Southbound				5th Street Westbound				Calimesa Boulevard Northbound				Sandalewood Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	2	80	83	1	73	4	78	57	75	35	167	23	21	4	48	376
07:15 AM	6	6	80	92	5	88	5	98	74	100	43	217	31	62	17	110	517
07:30 AM	7	7	74	88	3	92	6	101	48	124	35	207	50	65	11	126	522
07:45 AM	8	5	56	69	7	47	4	58	31	109	40	180	19	23	8	50	357
Total	22	20	290	332	16	300	19	335	210	408	153	771	123	171	40	334	1772
08:00 AM	3	13	71	87	5	46	4	55	32	86	33	151	12	18	6	36	329
08:15 AM	4	18	63	85	8	42	8	58	26	76	26	128	14	12	11	37	308
08:30 AM	7	11	74	92	3	32	10	45	36	74	13	123	15	8	8	31	291
08:45 AM	5	17	59	81	7	45	6	58	18	70	36	124	17	15	8	40	303
Total	19	59	267	345	23	165	28	216	112	306	108	526	58	53	33	144	1231
Grand Total	41	79	557	677	39	465	47	551	322	714	261	1297	181	224	73	478	3003
Apprch %	6.1	11.7	82.3		7.1	84.4	8.5		24.8	55.1	20.1		37.9	46.9	15.3		
Total %	1.4	2.6	18.5	22.5	1.3	15.5	1.6	18.3	10.7	23.8	8.7	43.2	6	7.5	2.4	15.9	

Start Time	Calimesa Boulevard Southbound				5th Street Westbound				Calimesa Boulevard Northbound				Sandalewood Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	2	<b>80</b>	83	1	73	4	78	57	75	35	167	23	21	4	48	376
07:15 AM	6	6	80	<b>92</b>	5	88	5	98	<b>74</b>	100	<b>43</b>	<b>217</b>	31	62	<b>17</b>	110	517
07:30 AM	7	<b>7</b>	74	88	3	<b>92</b>	<b>6</b>	<b>101</b>	48	<b>124</b>	35	207	<b>50</b>	<b>65</b>	11	<b>126</b>	<b>522</b>
07:45 AM	<b>8</b>	5	56	69	<b>7</b>	47	4	58	31	109	40	180	19	23	8	50	357
Total Volume	22	20	290	332	16	300	19	335	210	408	153	771	123	171	40	334	1772
% App. Total	6.6	6	87.3		4.8	89.6	5.7		27.2	52.9	19.8		36.8	51.2	12		
PHF	.688	.714	.906	.902	.571	.815	.792	.829	.709	.823	.890	.888	.615	.658	.588	.663	.849

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Sandalewood Drive/5th Street  
 Weather: Clear

File Name : 06\_CAL\_Cali\_Sand AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	08:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	13	71	87	1	73	4	78	57	75	35	167	23	21	4	48
+15 mins.	4	<b>18</b>	63	85	5	88	5	98	<b>74</b>	100	<b>43</b>	<b>217</b>	31	62	<b>17</b>	110
+30 mins.	<b>7</b>	11	<b>74</b>	<b>92</b>	3	<b>92</b>	<b>6</b>	<b>101</b>	48	<b>124</b>	35	207	<b>50</b>	<b>65</b>	11	<b>126</b>
+45 mins.	5	17	59	81	<b>7</b>	47	4	58	31	109	40	180	19	23	8	50
Total Volume	19	59	267	345	16	300	19	335	210	408	153	771	123	171	40	334
% App. Total	5.5	17.1	77.4		4.8	89.6	5.7		27.2	52.9	19.8		36.8	51.2	12	
PHF	.679	.819	.902	.938	.571	.815	.792	.829	.709	.823	.890	.888	.615	.658	.588	.663

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Sandalewood Drive/5th Street  
 Weather: Clear

File Name : 06\_CAL\_Cali\_Sand PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

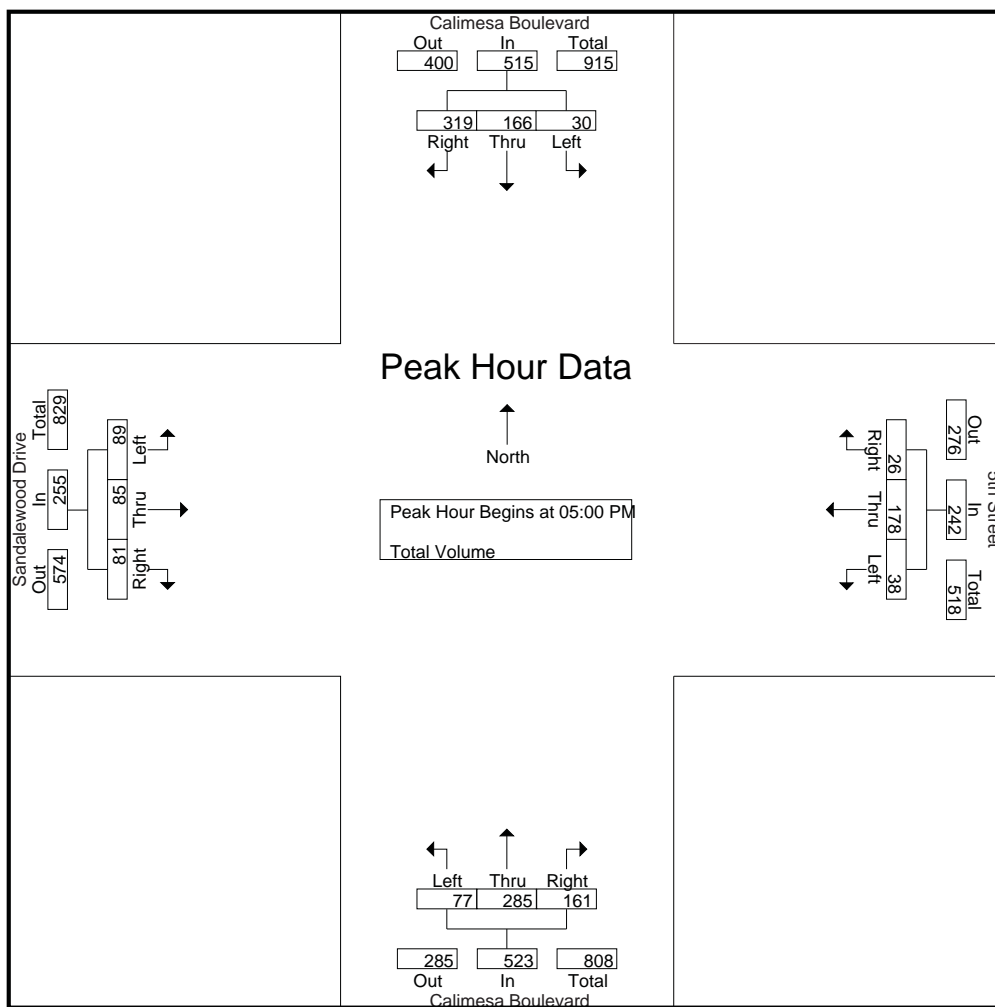
Start Time	Calimesa Boulevard Southbound				5th Street Westbound				Calimesa Boulevard Northbound				Sandalewood Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	8	34	73	115	6	38	7	51	20	58	40	118	27	20	16	63	347
04:15 PM	6	31	73	110	3	37	4	44	11	96	43	150	16	23	22	61	365
04:30 PM	8	33	97	138	15	62	4	81	21	77	36	134	18	18	21	57	410
04:45 PM	5	38	73	116	12	41	2	55	17	68	40	125	25	11	15	51	347
<b>Total</b>	<b>27</b>	<b>136</b>	<b>316</b>	<b>479</b>	<b>36</b>	<b>178</b>	<b>17</b>	<b>231</b>	<b>69</b>	<b>299</b>	<b>159</b>	<b>527</b>	<b>86</b>	<b>72</b>	<b>74</b>	<b>232</b>	<b>1469</b>
05:00 PM	4	44	90	138	13	36	6	55	16	71	29	116	13	17	16	46	355
05:15 PM	9	45	77	131	12	45	8	65	12	70	43	125	32	21	21	74	395
05:30 PM	10	44	74	128	9	54	7	70	25	73	49	147	18	27	19	64	409
05:45 PM	7	33	78	118	4	43	5	52	24	71	40	135	26	20	25	71	376
<b>Total</b>	<b>30</b>	<b>166</b>	<b>319</b>	<b>515</b>	<b>38</b>	<b>178</b>	<b>26</b>	<b>242</b>	<b>77</b>	<b>285</b>	<b>161</b>	<b>523</b>	<b>89</b>	<b>85</b>	<b>81</b>	<b>255</b>	<b>1535</b>
<b>Grand Total</b>	<b>57</b>	<b>302</b>	<b>635</b>	<b>994</b>	<b>74</b>	<b>356</b>	<b>43</b>	<b>473</b>	<b>146</b>	<b>584</b>	<b>320</b>	<b>1050</b>	<b>175</b>	<b>157</b>	<b>155</b>	<b>487</b>	<b>3004</b>
Apprch %	5.7	30.4	63.9		15.6	75.3	9.1		13.9	55.6	30.5		35.9	32.2	31.8		
Total %	1.9	10.1	21.1	33.1	2.5	11.9	1.4	15.7	4.9	19.4	10.7	35	5.8	5.2	5.2	16.2	

Start Time	Calimesa Boulevard Southbound				5th Street Westbound				Calimesa Boulevard Northbound				Sandalewood Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	44	<b>90</b>	<b>138</b>	<b>13</b>	36	6	55	16	71	29	116	13	17	16	46	355
05:15 PM	9	<b>45</b>	77	131	12	45	<b>8</b>	65	12	70	43	125	<b>32</b>	21	21	<b>74</b>	395
05:30 PM	<b>10</b>	44	74	128	9	<b>54</b>	7	<b>70</b>	<b>25</b>	<b>73</b>	<b>49</b>	<b>147</b>	18	<b>27</b>	19	64	<b>409</b>
05:45 PM	7	33	78	118	4	43	5	52	24	71	40	135	26	20	<b>25</b>	71	376
<b>Total Volume</b>	<b>30</b>	<b>166</b>	<b>319</b>	<b>515</b>	<b>38</b>	<b>178</b>	<b>26</b>	<b>242</b>	<b>77</b>	<b>285</b>	<b>161</b>	<b>523</b>	<b>89</b>	<b>85</b>	<b>81</b>	<b>255</b>	<b>1535</b>
% App. Total	5.8	32.2	61.9		15.7	73.6	10.7		14.7	54.5	30.8		34.9	33.3	31.8		
PHF	.750	.922	.886	.933	.731	.824	.813	.864	.770	.976	.821	.889	.695	.787	.810	.861	.938

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Sandalewood Drive/5th Street  
 Weather: Clear

File Name : 06\_CAL\_Cali\_Sand PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:30 PM				04:00 PM				05:00 PM							
+0 mins.	8	33	97	138	15	62	4	81	20	58	40	118	13	17	16	46
+15 mins.	5	38	73	116	12	41	2	55	11	96	43	150	32	21	21	74
+30 mins.	4	44	90	138	13	36	6	55	21	77	36	134	18	27	19	64
+45 mins.	9	45	77	131	12	45	8	65	17	68	40	125	26	20	25	71
Total Volume	26	160	337	523	52	184	20	256	69	299	159	527	89	85	81	255
% App. Total	5	30.6	64.4		20.3	71.9	7.8		13.1	56.7	30.2		34.9	33.3	31.8	
PHF	.722	.889	.869	.947	.867	.742	.625	.790	.821	.779	.924	.878	.695	.787	.810	.861

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

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

Start Time	Cherry Valley Boulevard Southbound						Roberts Road Westbound						Tukwet Canyon Parkway Northbound						Roberts Road Eastbound						
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
		App. Total		App. Total		RTOR		App. Total		App. Total		RTOR		App. Total		App. Total		RTOR		App. Total		App. Total		RTOR	
07:00 AM	25	44	9	1	78	2	0	29	19	31	2	140	5	2	147	36	4	0	0	40	36	4	0	0	40
07:15 AM	28	48	18	5	94	3	3	34	21	40	4	110	4	2	118	40	1	4	2	45	40	1	4	2	45
07:30 AM	26	71	31	13	128	3	5	30	19	38	4	119	8	0	131	51	6	18	9	75	51	6	18	9	75
07:45 AM	39	84	27	6	150	2	13	24	17	39	11	125	3	0	139	30	9	15	9	54	30	9	15	9	54
<b>Total</b>	118	247	85	25	450	10	21	117	76	148	21	494	20	4	535	157	20	37	20	214	157	20	37	20	214
08:00 AM	27	93	7	1	127	3	1	26	16	30	2	128	5	4	135	22	4	14	6	40	22	4	14	6	40
08:15 AM	35	88	13	0	136	3	1	26	17	30	3	104	7	1	114	12	1	0	0	13	12	1	0	0	13
08:30 AM	32	69	12	0	113	1	1	13	9	15	3	109	5	3	117	16	0	1	1	17	16	0	1	1	17
08:45 AM	44	59	6	0	109	2	1	24	15	27	0	113	5	2	118	10	4	0	0	14	10	4	0	0	14
<b>Total</b>	138	309	38	1	485	9	4	89	57	102	8	454	22	10	484	60	9	15	7	84	60	9	15	7	84
<b>Grand Total</b>	256	556	123	26	935	19	25	206	133	250	29	948	42	14	1019	217	29	52	27	298	217	29	52	27	298
Approach %	27.4	59.5	13.2			7.6	10	82.4			2.8	93	4.1			72.8	9.7	17.4			72.8	9.7	17.4		
Total %	10.2	22.2	4.9		37.4	0.8	1	8.2		10	1.2	37.9	1.7		40.7	8.7	1.2	2.1		11.9	8.7	1.2	2.1		11.9
% Passenger Vehicles	242	523	120		910	19	25	196		366	26	915	41		996	213	28	51		319	213	28	51		319
% Large 2 Axle Vehicles	94.5	94.1	97.6	96.2	94.7	100	100	95.1	94.7	95.6	89.7	96.5	97.6	100	96.4	98.2	96.6	98.1	100	98.2	98.2	96.6	98.1	100	98.2
% 3 Axle Vehicles	13	23	2		39	0	0	8	4.5	3.7	6.9	2.3	2.4	0	2.4	3	0	1	0	4	3	0	1	0	4
% 4+ Axle Trucks	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

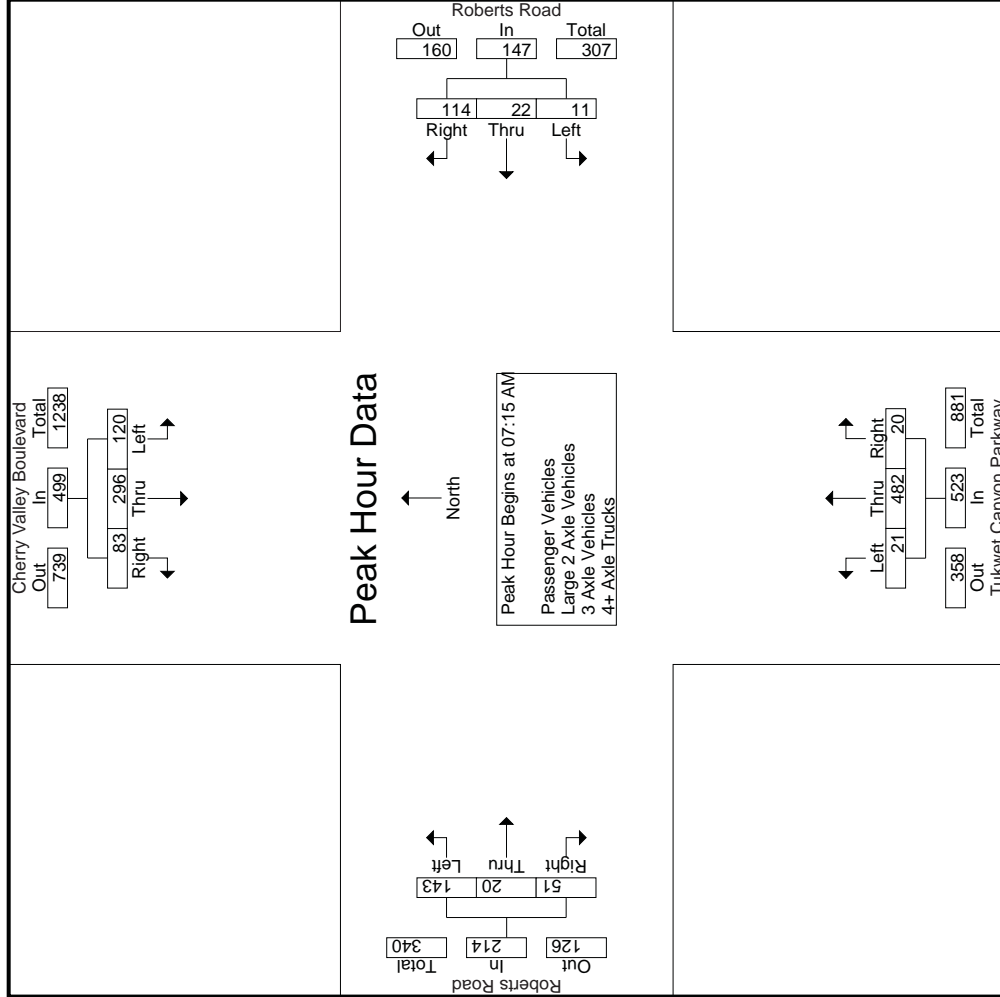
Start Time	Cherry Valley Boulevard Southbound						Roberts Road Westbound						Tukwet Canyon Parkway Northbound						Roberts Road Eastbound						
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
		App. Total		App. Total		RTOR		App. Total		App. Total		RTOR		App. Total		App. Total		RTOR		App. Total		App. Total		RTOR	
07:15 AM	28	48	18		94	3	3	34		40	4	110	4		118	40	1	4		45	40	1	4		45
07:30 AM	26	71	31		128	3	5	30		38	4	119	8		131	51	6	18		75	51	6	18		75
07:45 AM	39	84	27		150	2	13	24		39	11	125	3		139	30	9	15		54	30	9	15		54
08:00 AM	27	93	7		127	3	1	26		30	2	128	5		135	22	4	14		40	22	4	14		40
Total Volume	120	296	83		499	11	22	114		147	21	482	20		523	143	20	51		214	143	20	51		214
% App. Total	24	59.3	16.6		83.2	7.5	15	77.6		91.9	4	92.2	3.8		94.1	66.8	9.3	23.8		71.3	66.8	9.3	23.8		71.3
PHF	.769	.796	.669		.832	.917	.423	.838		.919	.477	.941	.625		.941	.701	.556	.708		.905	.701	.556	.708		.905

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear



Roberts (N/S) & Cherry (E/W)

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1	Peak Hour for Each Approach Begins at:												
	07:30 AM												
+0 mins.	26	71	31	128	2	0	29	31	2	140	5	147	07:00 AM
+15 mins.	39	84	27	150	3	3	34	40	4	110	4	118	36
+30 mins.	27	93	7	127	3	5	30	38	4	119	8	131	40
+45 mins.	35	88	13	136	2	13	24	39	11	125	3	139	51
Total Volume	127	336	78	541	10	21	117	148	21	494	20	535	157
% App. Total	23.5	62.1	14.4	902	6.8	14.2	79.1	925	3.9	92.3	3.7	910	73.4
PHF	.814	.903	.629	.902	.833	.404	.860	.925	.477	.882	.625	.910	.770
													.556
													.514
													.713



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

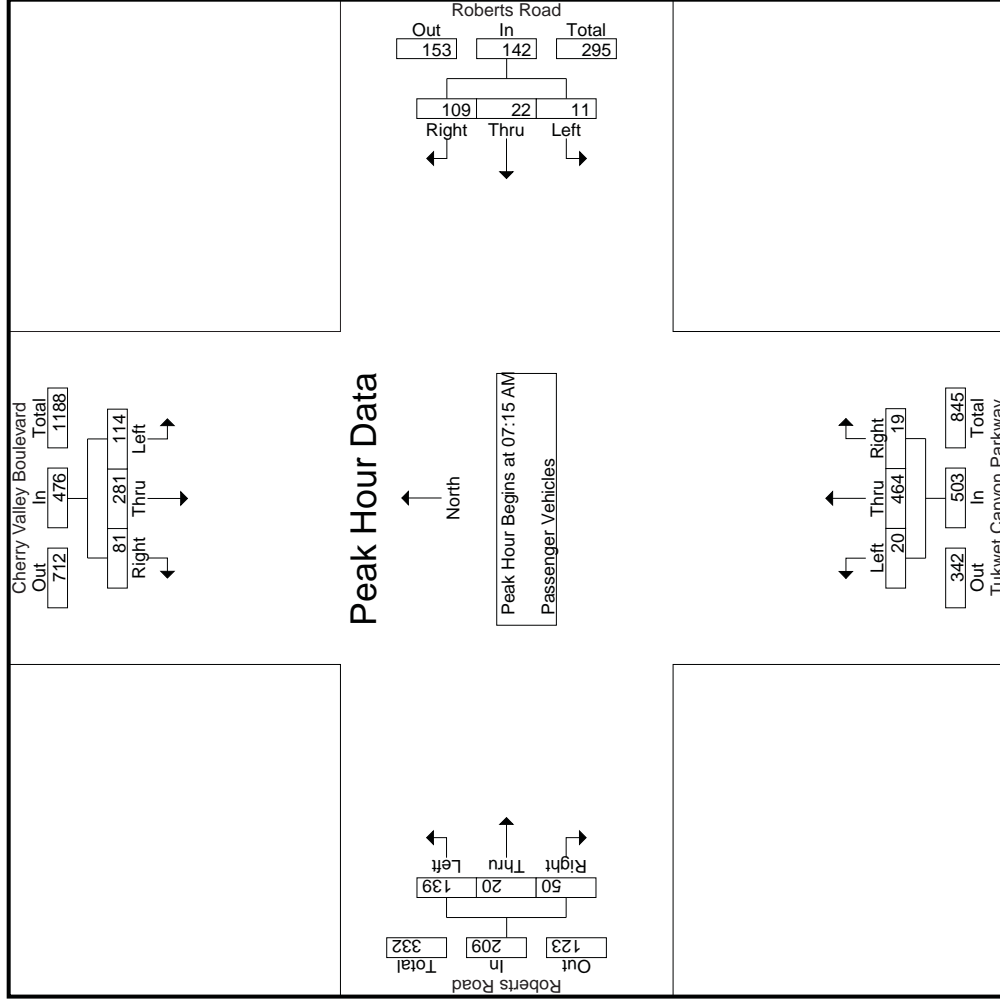
Start Time	Cherry Valley Boulevard Southbound					Roberts Road Westbound					Tukwet Canyon Parkway Northbound					Roberts Road Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
	Exclu. Total	Inclu. Total	Int. Total	Exclu. Total	Inclu. Total	Int. Total	Exclu. Total	Inclu. Total	Int. Total	Exclu. Total	Inclu. Total	Int. Total								
07:00 AM	23	40	8	1	71	2	0	27	18	29	2	139	5	2	146	36	4	0	0	40
07:15 AM	28	44	18	5	90	3	3	33	21	39	4	106	4	2	114	40	1	4	2	45
07:30 AM	24	69	31	13	124	3	5	27	16	35	4	117	7	0	128	51	6	18	9	75
07:45 AM	37	80	25	5	142	2	13	24	17	39	10	120	3	0	133	30	9	15	9	54
<b>Total</b>	112	233	82	24	427	10	21	111	72	142	20	482	19	4	521	157	20	37	20	214
08:00 AM	25	88	7	1	120	3	1	25	16	29	2	121	5	4	128	18	4	13	6	35
08:15 AM	33	83	13	0	129	3	1	24	15	28	2	101	7	1	110	12	1	0	0	13
08:30 AM	30	65	12	0	107	1	1	12	8	14	2	104	5	3	111	16	0	1	1	17
08:45 AM	42	54	6	0	102	2	1	24	15	27	0	107	5	2	112	10	3	0	0	13
<b>Total</b>	130	290	38	1	458	9	4	85	54	98	6	433	22	10	461	56	8	14	7	78
<b>Grand Total</b>	242	523	120	25	885	19	25	196	126	240	26	915	41	14	982	213	28	51	27	292
Approch %	27.3	59.1	13.6			7.9	10.4	81.7			2.6	93.2	4.2			72.9	9.6	17.5		
Total %	10.1	21.8	5		36.9	0.8	1	8.2		10	1.1	38.1	1.7		40.9	8.9	1.2	2.1		12.2
																				7.4
																				92.6

Start Time	Cherry Valley Boulevard Southbound					Roberts Road Westbound					Tukwet Canyon Parkway Northbound					Roberts Road Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
	Exclu. Total	Inclu. Total	Int. Total	Exclu. Total	Inclu. Total	Int. Total	Exclu. Total	Inclu. Total	Int. Total	Exclu. Total	Inclu. Total	Int. Total								
07:15 AM	28	44	18		90	3	3	33		39	4	106	4		114	40	1	4		45
07:30 AM	24	69	31		124	3	5	27		35	4	117	7		128	51	6	18		75
07:45 AM	37	80	25		142	2	13	24		39	10	120	3		133	30	9	15		54
08:00 AM	25	88	7		120	3	1	25		29	2	121	5		128	18	4	13		35
Total Volume	114	281	81		476	11	22	109		142	20	464	19		503	139	20	50		209
% App. Total	23.9	59	17		36.9	7.7	15.5	76.8		10	4	92.2	3.8		40.9	66.5	9.6	23.9		12.2
PHF	.770	.798	.653		.838	.917	.423	.826		.910	.500	.959	.679		.945	.681	.556	.694		.697

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1	Peak Hour for Each Approach Begins at:																
	07:15 AM																
+0 mins.	28	44	18	90	3	3	33	39	4	106	4	114	4	1	40	4	45
+15 mins.	24	69	31	124	3	5	27	35	4	117	4	128	7	6	51	18	75
+30 mins.	37	80	25	142	2	13	24	39	10	120	3	133	3	9	30	15	54
+45 mins.	25	88	7	120	3	1	25	29	2	121	5	128	5	4	18	13	35
Total Volume	114	281	81	476	11	22	109	142	20	464	19	503	19	20	139	50	209
% App. Total	23.9	59	17	7.7	15.5	76.8	76.8	3.8	4	92.2	3.8	66.5	9.6	23.9	66.5	23.9	209
PHF	.770	.798	.653	.838	.917	.423	.826	.910	.500	.959	.679	.945	.556	.694	.681	.694	.697

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Groups Printed- Large 2 Axle Vehicles

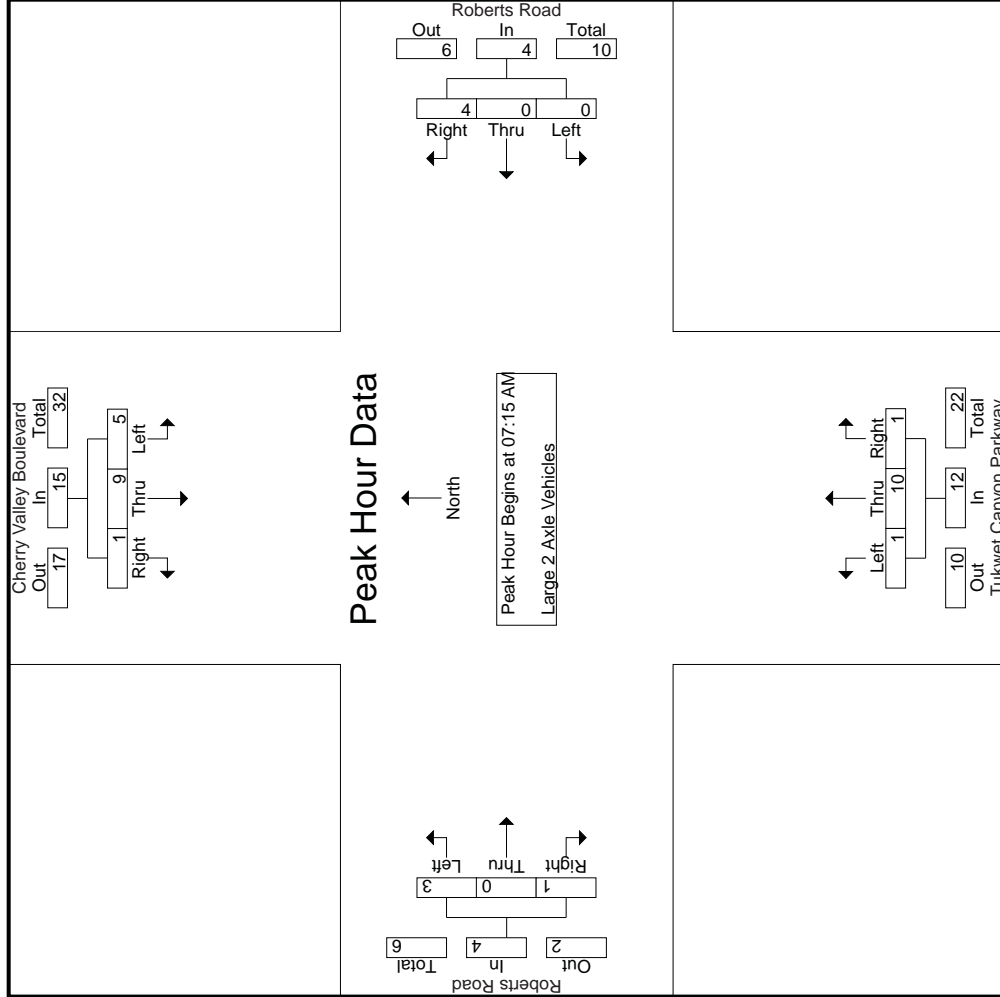
Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound							
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	4	1	0	0	0	2	1	2	0	1	0	0	0	0	0	0	1	10	11
07:15 AM	0	3	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	5	5
07:30 AM	2	2	0	0	0	3	3	0	3	0	2	0	0	0	0	0	0	3	9	12
07:45 AM	2	2	1	1	0	0	0	0	1	4	0	0	5	0	0	0	0	1	10	11
Total	6	11	2	1	0	6	4	4	6	1	7	1	9	0	0	0	0	5	34	39
08:00 AM	1	2	0	0	0	0	0	0	0	4	0	0	4	3	0	1	0	0	11	11
08:15 AM	2	4	0	0	0	1	1	0	1	3	0	0	4	0	0	0	0	1	11	12
08:30 AM	2	2	0	0	0	1	1	0	1	4	0	0	4	0	0	0	0	1	9	10
08:45 AM	2	4	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	10	10
Total	7	12	0	0	0	2	2	2	2	1	15	0	16	3	0	1	0	2	41	43
Grand Total	13	23	2	1	0	8	6	8	8	2	22	1	25	3	0	1	0	7	75	82
Approch %	34.2	60.5	5.3		0	100		10.7	8	88	4	33.3	75	0	25	0	5.3	8.5	91.5	
Total %	17.3	30.7	2.7		0	10.7		10.7	2.7	29.3	1.3	33.3	4	0	1.3					

Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound							
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:15 AM	0	3	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	5
07:30 AM	2	2	0	0	0	3	0	0	3	0	1	0	2	0	0	0	0	0	0	9
07:45 AM	2	2	1	1	0	0	0	0	0	1	4	0	5	0	0	0	0	0	0	10
08:00 AM	1	2	0	0	0	0	0	0	0	0	4	0	4	0	1	4	0	1	4	11
Total Volume	5	9	1	1	0	4	4	4	4	1	10	1	12	3	0	1	4	4	4	35
% App. Total	33.3	60	6.7		0	100		8.3	83.3	8.3	33.3	33.3	75	0	25	0	.250	.250	.795	
PHF	.625	.750	.250		.000	.333	.333	.625	.250	.600	.250	.250	.250	.000	.250	.250	.250	.250	.795	

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:	07:15 AM											
+0 mins.	0	3	0	0	0	1	0	1	0	0	0	0
+15 mins.	2	2	0	0	0	3	0	1	1	0	0	0
+30 mins.	2	2	1	0	0	0	1	4	0	0	0	0
+45 mins.	1	2	0	0	0	0	0	4	0	3	0	1
Total Volume	5	9	1	0	0	4	1	10	1	3	0	1
% App. Total	33.3	60	6.7	0	0	100	8.3	83.3	8.3	75	0	25
PHF	.625	.750	.250	.000	.000	.333	.250	.625	.250	.250	.000	.250

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Groups Printed- 3 Axle Vehicles

Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound							
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
<b>Total</b>	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
08:00 AM	1	1	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	5
08:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
08:30 AM	0	2	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	4	4
08:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	0	4	4
<b>Total</b>	1	5	0	0	0	0	2	1	2	1	5	0	6	0	1	0	0	1	15	16
<b>Grand Total</b>	1	7	1	0	0	0	2	1	2	1	5	0	6	0	1	0	0	1	18	19
Approch %	11.1	77.8	11.1		0	0	100		16.7	83.3	0		33.3	0	100	0	5.6	5.3	94.7	
Total %	5.6	38.9	5.6		0	0	11.1		11.1	5.6	27.8	0		0	5.6	0				

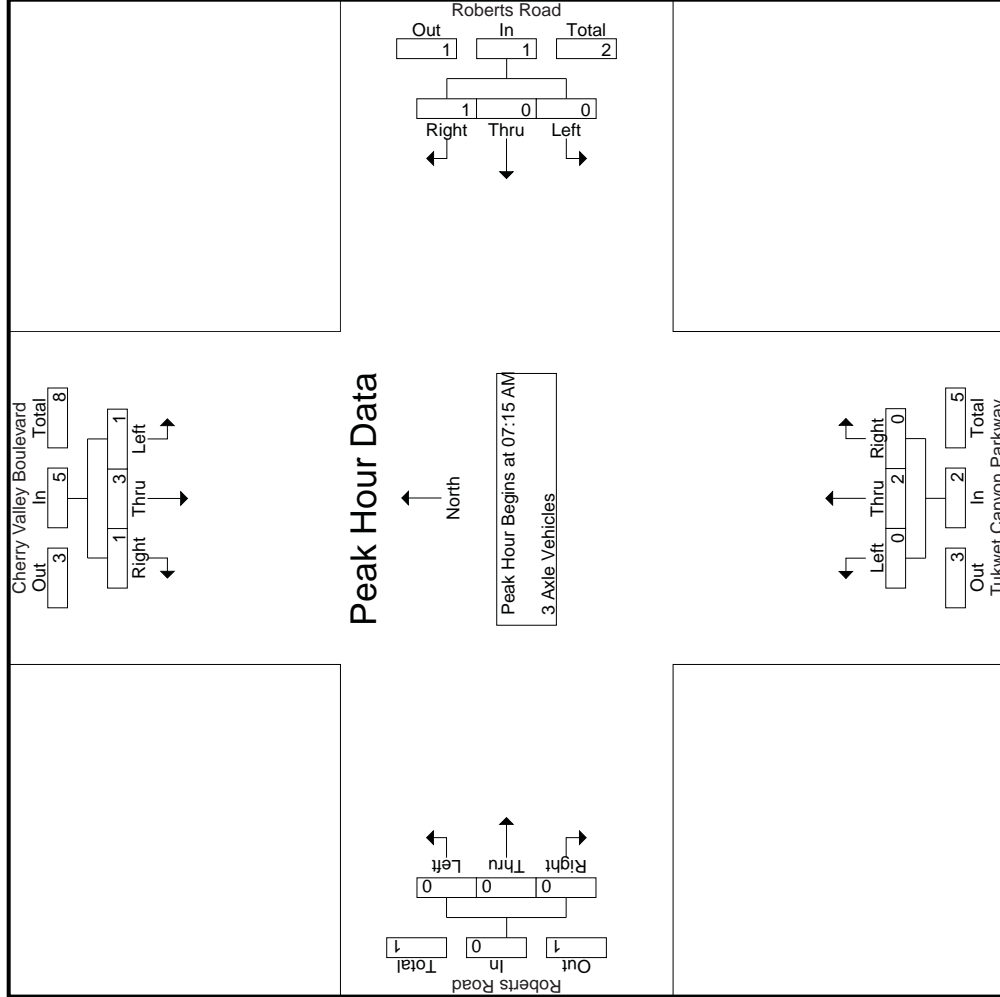
Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound							
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:00 AM	1	1	0	0	0	0	0	0	1	0	1	0	2	0	0	0	2	0	0	5
<b>Total Volume</b>	1	3	1		0	0	1		1	0	2	0	2	0	0	0	2	0	0	8
<b>% App. Total</b>	20	60	20		0	0	100		0	0	100	0		0	0	0				
PHF	.250	.375	.250		.000	.250	.250		.250	.000	.250	.000	.250	.000	.000	.000	.250	.000	.000	.400

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 11178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2





Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	07:15 AM												
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	2	1	3	0	0	0	0	0	0	0	0	0
+45 mins.	1	1	0	2	0	0	1	1	0	0	0	0	0
Total Volume	1	3	1	5	0	0	1	1	0	2	0	0	0
% App. Total	20	60	20	.417	0	0	100	.250	0	100	0	0	0
PHF	.250	.375	.250	.417	.000	.000	.250	.250	.000	.250	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Groups Printed- 4+ Axle Trucks

Start Time	Cherry Valley Boulevard Southbound					Roberts Road Westbound					Tukwet Canyon Parkway Northbound					Roberts Road Eastbound								
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total	
	07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	4	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1
<b>Total</b>	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	6	6
08:00 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	4	4
08:15 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
08:30 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
08:45 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
<b>Total</b>	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	4	4
<b>Grand Total</b>	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	1	0	0	0	0	0	0	10	10
Approch %	0	100	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	0	100	100
Total %	0	30	0	0	30	0	0	0	0	0	60	0	0	60	10	0	0	0	0	0	0	0	100	100

Start Time	Cherry Valley Boulevard Southbound					Roberts Road Westbound					Tukwet Canyon Parkway Northbound					Roberts Road Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
	07:15 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
08:00 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	1
<b>Total Volume</b>	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	1	0	0	0	0	0	0	10
<b>% App. Total</b>	0	100	0	0	100	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	0	100
PHF	.000	.375	.000	.000	.375	.000	.000	.000	.000	.000	.500	.000	.500	.000	.500	.250	.000	.000	.000	.250	.000	.250	.625

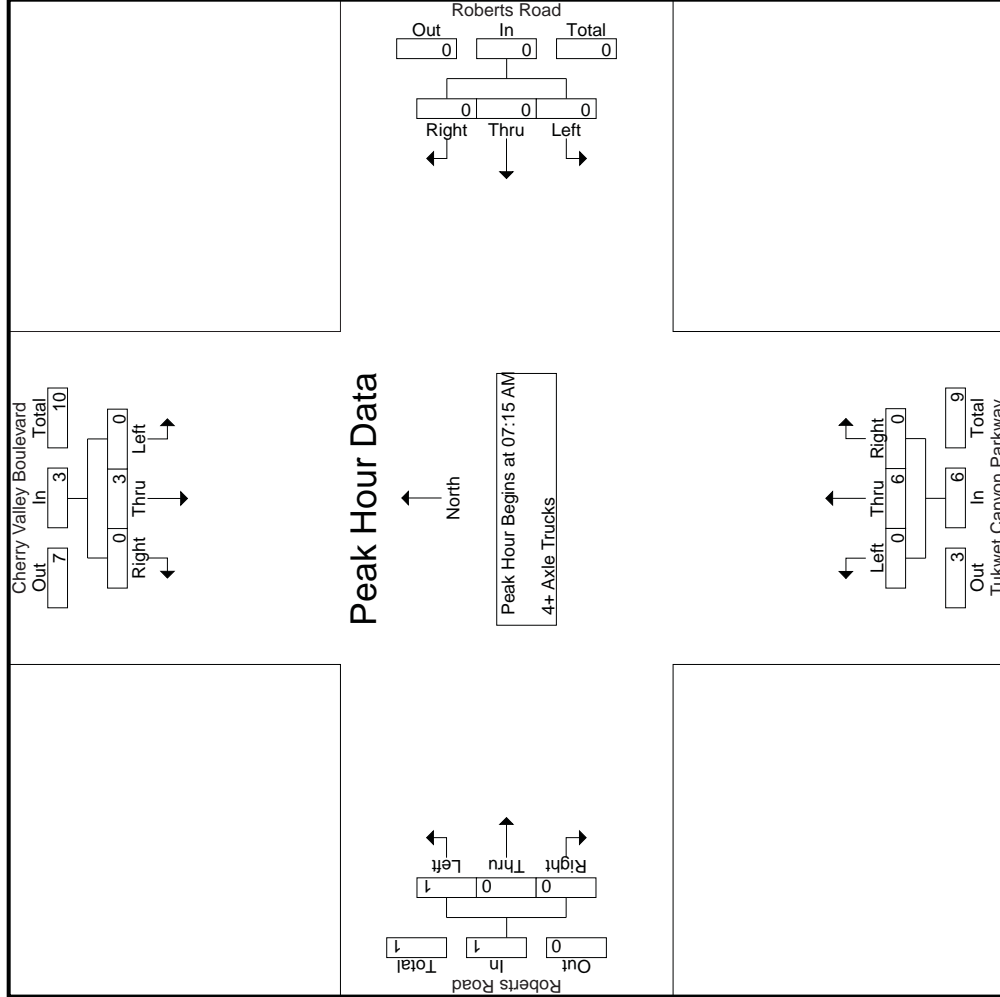
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwewet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:	07:15 AM											
+0 mins.	0	1	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	0	0	0	0
+45 mins.	0	2	0	0	0	0	0	1	0	1	0	1
Total Volume	0	3	0	0	0	0	0	6	0	6	0	1
% App. Total	0	100	0	0	0	0	0	100	0	100	0	0
PHF	.000	.375	.000	.000	.000	.000	.000	.500	.000	.500	.000	.250

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

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

Start Time	Cherry Valley Boulevard Southbound						Roberts Road Westbound						Tukwet Canyon Parkway Northbound						Roberts Road Eastbound					
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right	
		App. Total		RTOR		App. Total		RTOR		App. Total		RTOR		App. Total		RTOR		App. Total		App. Total		RTOR		App. Total
04:00 PM	65	123	13	0	201	5	3	39	24	47	1	111	8	2	120	6	5	3	2	14	28	382	410	
04:15 PM	64	145	11	0	220	9	2	33	24	44	2	114	5	0	121	9	1	1	1	11	25	396	421	
04:30 PM	48	144	13	0	205	5	2	31	29	38	1	96	2	1	99	5	1	1	1	7	31	349	380	
04:45 PM	66	143	14	1	223	4	1	28	16	33	2	99	8	2	109	6	4	1	1	11	20	376	396	
<b>Total</b>	243	555	51	1	849	23	8	131	93	162	6	420	23	5	449	26	11	6	5	43	104	1503	1607	
05:00 PM	47	141	14	0	202	1	4	34	32	39	2	76	5	0	83	5	4	1	1	10	33	334	367	
05:15 PM	49	143	22	1	214	2	6	23	19	31	2	85	6	0	93	8	3	0	0	11	20	349	369	
05:30 PM	47	136	10	1	193	6	3	26	24	35	2	100	8	1	110	6	3	0	0	9	26	347	373	
05:45 PM	57	155	16	0	228	4	1	27	23	32	0	105	5	0	110	7	0	2	1	9	24	379	403	
<b>Total</b>	200	575	62	2	837	13	14	110	98	137	6	366	24	1	396	26	10	3	2	39	103	1409	1512	
<b>Grand Total</b>	443	1130	113	3	1686	36	22	241	191	299	12	786	47	6	845	52	21	9	7	82	207	2912	3119	
Approach %	26.3	67	6.7			12	7.4	80.6			1.4	93	5.6			63.4	25.6	11						
Total %	15.2	38.8	3.9		57.9	1.2	0.8	8.3		10.3	0.4	27	1.6		29	1.8	0.7	0.3		2.8	6.6	93.4		
Passenger Vehicles	436	1124	112		1675	36	22	237		483	12	769	47		834	52	21	9		89	0	0	3081	
% Passenger Vehicles	98.4	99.5	99.1		99.2	100	100	98.3		98.6	100	97.8	100		100	100	100	100		100	0	0	98.8	
Large 2 Axle Vehicles	7	6	1		14	0	0	3		6	0	16	0		16	0	0	0		0	0	0	36	
% Large 2 Axle Vehicles	1.6	0.5	0.9		0.8	0	0	1.2		1.2	0	2	0		1.9	0	0	0		0	0	0	1.2	
3 Axle Vehicles	0	0	0		0	0	0	1		1	0	0	0		0	0	0	0		0	0	0	1	
% 3 Axle Vehicles	0	0	0		0	0	0	0.4		0.2	0	0	0		0	0	0	0		0	0	0	0	
4+ Axle Trucks	0	0	0		0	0	0	0		0	0	1	0		1	0	0	0		0	0	0	1	
% 4+ Axle Trucks	0	0	0		0	0	0	0		0	0	0.1	0		0.1	0	0	0		0	0	0	0	

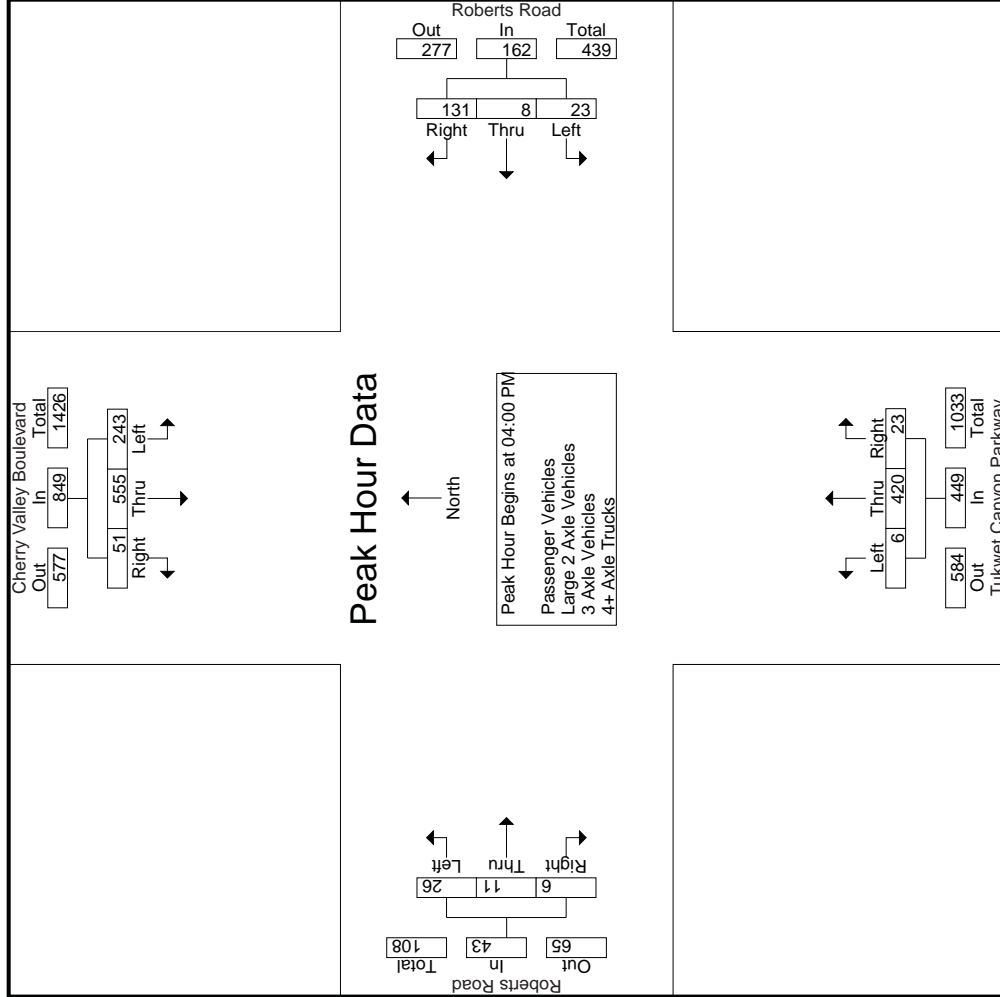
Start Time	Cherry Valley Boulevard Southbound						Roberts Road Westbound						Tukwet Canyon Parkway Northbound						Roberts Road Eastbound					
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right	
		App. Total		RTOR		App. Total		RTOR		App. Total		RTOR		App. Total		RTOR		App. Total		App. Total		RTOR		App. Total
04:00 PM	65	123	13		201	5	3	39		47	1	111	8		120	6	5	3		14	28	382	410	
04:15 PM	64	145	11		220	9	2	33		44	2	114	5		121	9	1	1		11	25	396	421	
04:30 PM	48	144	13		205	5	2	31		38	1	96	2		99	5	1	1		7	31	349	380	
04:45 PM	66	143	14		223	4	1	28		33	2	99	8		109	6	4	1		11	20	376	396	
<b>Total</b>	243	555	51		849	23	8	131		162	6	420	23		449	26	11	6		43	104	1503	1607	
Total Volume	243	555	51		849	23	8	131		162	6	420	23		449	26	11	6		43	104	1503	1607	
% App. Total	28.6	65.4	6		6	14.2	4.9	80.9		80.9	1.3	93.5	5.1		5.1	60.5	25.6	14		14				
PHF	.920	.957	.911		.952	.639	.667	.840		.862	.750	.921	.719		.928	.722	.550	.500		.500	.768	.949		

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear



Roberts (N/S) & Cherry (E/W)

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound						
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total			
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	Peak Hour for Each Approach Begins at:															
	04:15 PM															
+0 mins.	64	145	11	220	5	3	39	47	1	111	8	120	6	5	3	14
+15 mins.	48	144	13	205	9	2	33	44	2	114	5	121	9	1	1	11
+30 mins.	66	143	14	223	5	2	31	38	1	96	2	99	5	1	1	7
+45 mins.	47	141	14	202	4	1	28	33	2	99	8	109	6	4	1	11
Total Volume	225	573	52	850	23	8	131	162	6	420	23	449	26	11	6	43
% App. Total	26.5	67.4	6.1		14.2	4.9	80.9		1.3	93.5	5.1		60.5	25.6	14	
PHF	.852	.988	.929	.953	.639	.667	.840	.862	.750	.921	.719	.928	.722	.550	.500	.768

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

### Groups Printed- Passenger Vehicles

Start Time	Cherry Valley Boulevard Southbound						Roberts Road Westbound						Tukwet Canyon Parkway Northbound						Roberts Road Eastbound								
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total		
04:00 PM	62	122	13	0	197	5	3	38	23	46	1	104	8	2	113	6	5	3	2	14	27	370					397
04:15 PM	62	145	11	0	218	9	2	32	24	43	2	108	5	0	115	9	1	1	1	11	25	387					412
04:30 PM	48	141	13	0	202	5	2	31	29	38	1	96	2	1	99	5	1	1	1	7	31	346					377
04:45 PM	66	143	14	1	223	4	1	28	16	33	2	97	8	2	107	6	4	1	1	11	20	374					394
<b>Total</b>	238	551	51	1	840	23	8	129	92	160	6	405	23	5	434	26	11	6	5	43	103	1477					1580
05:00 PM	45	141	13	0	199	1	4	33	31	38	2	76	5	0	83	5	4	1	1	10	32	330					362
05:15 PM	49	142	22	1	213	2	6	22	18	30	2	85	6	0	93	8	3	0	0	11	19	347					366
05:30 PM	47	136	10	1	193	6	3	26	24	35	2	99	8	1	109	6	3	0	0	9	26	346					372
05:45 PM	57	154	16	0	227	4	1	27	23	32	0	104	5	0	109	7	0	2	1	9	24	377					401
<b>Total</b>	198	573	61	2	832	13	14	108	96	135	6	364	24	1	394	26	10	3	2	39	101	1400					1501
<b>Grand Total</b>	436	1124	112	3	1672	36	22	237	188	295	12	769	47	6	828	52	21	9	7	82	204	2877					3081
Approch %	26.1	67.2	6.7			12.2	7.5	80.3			1.4	92.9	5.7			63.4	25.6	11									
Total %	15.2	39.1	3.9		58.1	1.3	0.8	8.2		10.3	0.4	26.7	1.6		28.8	1.8	0.7	0.3		2.9	6.6	93.4					

Start Time	Cherry Valley Boulevard Southbound						Roberts Road Westbound						Tukwet Canyon Parkway Northbound						Roberts Road Eastbound								
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total		
04:00 PM	62	122	13		197	5	3	38		46	1	104	8		113	6	5	3		14	27	370					397
04:15 PM	62	145	11		218	9	2	32		43	2	108	5		115	9	1	1		11	25	387					412
04:30 PM	48	141	13		202	5	2	31		38	1	96	2		99	5	1	1		7	31	346					377
04:45 PM	66	143	14		223	4	1	28		33	2	97	8		107	6	4	1		11	20	374					394
<b>Total</b>	238	551	51		840	23	8	129		160	6	405	23		434	26	11	6		43	103	1477					1580
05:00 PM	45	141	13		199	1	4	33		38	2	76	5		83	5	4	1		10	32	330					362
05:15 PM	49	142	22		213	2	6	22		30	2	85	6		93	8	3	0		11	19	347					366
05:30 PM	47	136	10		193	6	3	26		35	2	99	8		109	6	3	0		9	26	346					372
05:45 PM	57	154	16		227	4	1	27		32	0	104	5		109	7	0	2		9	24	377					401
<b>Total</b>	198	573	61		832	13	14	108		135	6	364	24		394	26	10	3		39	101	1400					1501
<b>Grand Total</b>	436	1124	112		1672	36	22	237		295	12	769	47		828	52	21	9		82	204	2877					3081
Approch %	26.1	67.2	6.7			12.2	7.5	80.3			1.4	92.9	5.7			63.4	25.6	11									
Total %	15.2	39.1	3.9		58.1	1.3	0.8	8.2		10.3	0.4	26.7	1.6		28.8	1.8	0.7	0.3		2.9	6.6	93.4					

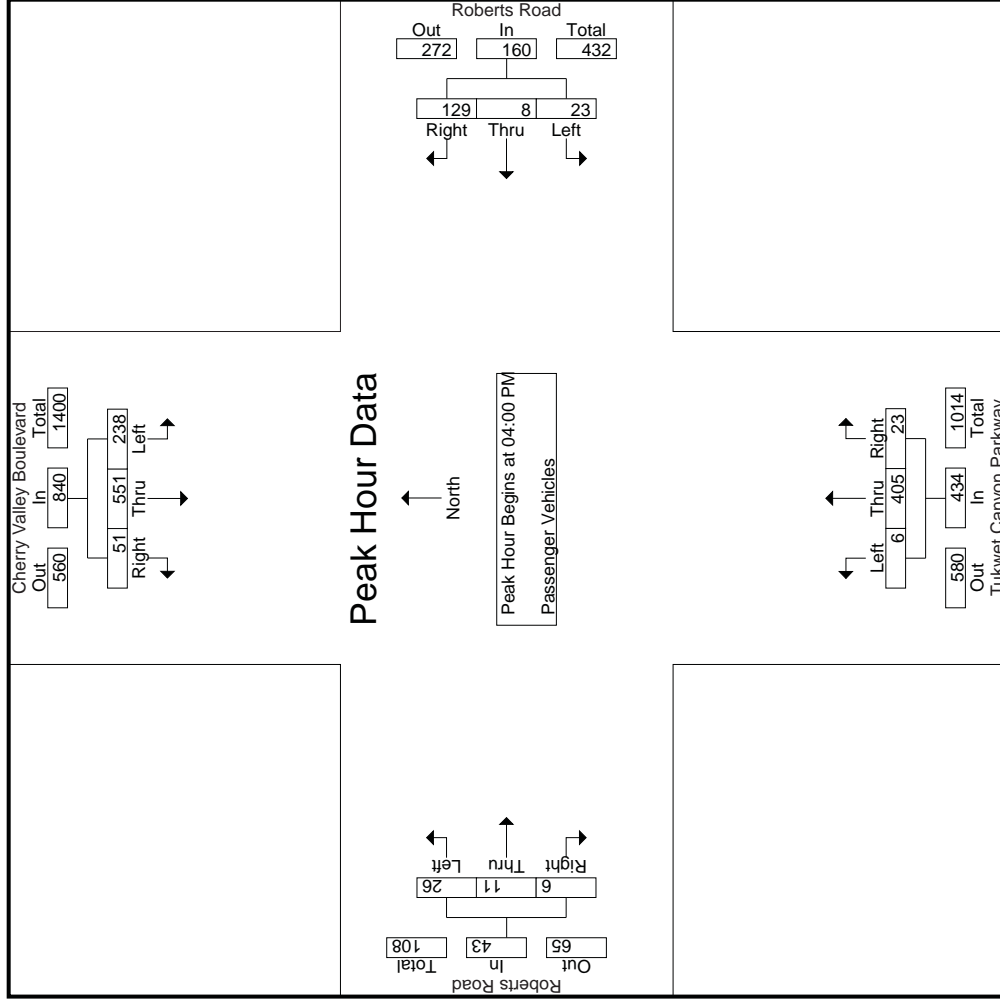
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 04:00 PM

Start Time	Cherry Valley Boulevard Southbound						Roberts Road Westbound						Tukwet Canyon Parkway Northbound						Roberts Road Eastbound								
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total		
04:00 PM	62	122	13		197	5	3	38		46	1	104	8		113	6	5	3		14	27	370					397
04:15 PM	62	145	11		218	9	2	32		43	2	108	5		115	9	1	1		11	25	387					412
04:30 PM	48	141	13		202	5	2	31		38	1	96	2		99	5	1	1		7	31	346					377
04:45 PM	66	143	14		223	4	1	28		33	2	97	8		107	6	4	1		11	20	374					394
<b>Total Volume</b>	238	551	51		840	23	8	129		160	6	405	23		434	26	11	6		43	103	1477					1580
<b>% App. Total</b>	28.3	65.6	6.1			14.4	5	80.6			1.4	93.3	5.3			60.5	25.6	14									
<b>PHF</b>	.902	.950	.911		.942	.639	.667	.849		.870	.750	.938	.719		.943	.722	.550	.500		.768							.954



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:00 PM													
+0 mins.	62	122	13	197	5	3	38	46	1	104	8	113	6	14
+15 mins.	62	145	11	218	9	2	32	43	2	108	5	115	9	11
+30 mins.	48	141	13	202	5	2	31	38	1	96	2	99	5	7
+45 mins.	66	143	14	223	4	1	28	33	2	97	8	107	6	11
Total Volume	238	551	51	840	23	8	129	160	6	405	23	434	26	6
% App. Total	28.3	65.6	6.1	84.4	14.4	5	80.6	87.0	1.4	93.3	5.3	94.3	60.5	14
PHF	.902	.950	.911	.942	.639	.667	.849	.870	.750	.938	.719	.943	.722	.500
														.768

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound							
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	1	0	0	4	0	0	1	1	0	0	0	6	0	0	0	0	1	11	12
04:15 PM	2	0	0	0	2	0	0	0	0	6	0	0	6	0	0	0	0	0	8	8
04:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	2
Total	5	4	0	0	9	0	0	1	1	0	14	0	14	0	0	0	0	1	24	25
05:00 PM	2	0	1	0	3	0	0	1	1	0	0	0	0	0	0	0	0	1	4	5
05:15 PM	0	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	2	3
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
05:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	2	2
Total	2	2	1	0	5	0	0	2	2	0	2	0	2	0	0	0	0	2	9	11
Grand Total	7	6	1	0	14	0	0	3	3	0	16	0	16	0	0	0	0	3	33	36
Approch %	50	42.9	7.1			0	0	100		0	100	0	48.5	0	0	0	0	8.3	91.7	
Total %	21.2	18.2	3		42.4	0	0	9.1		0	48.5	0	48.5	0	0	0	0	8.3	91.7	

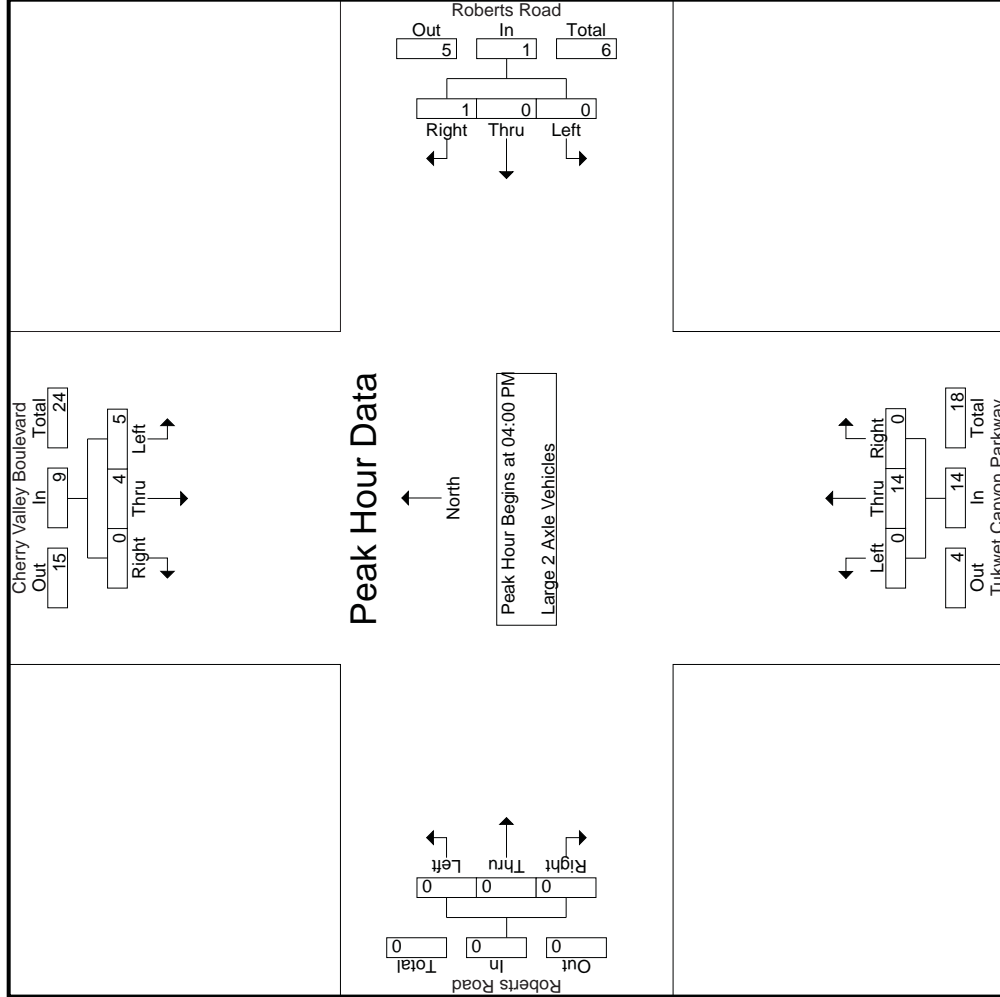
Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound							
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	1	0	0	4	0	0	1	1	0	0	0	6	0	0	0	0	1	11	12
04:15 PM	2	0	0	0	2	0	0	0	0	6	0	0	6	0	0	0	0	0	8	8
04:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	2
Total	5	4	0	0	9	0	0	1	1	0	14	0	14	0	0	0	0	1	24	25
05:00 PM	2	0	1	0	3	0	0	1	1	0	0	0	0	0	0	0	0	1	4	5
05:15 PM	0	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	2	3
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
05:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	2	2
Total	2	2	1	0	5	0	0	2	2	0	2	0	2	0	0	0	0	2	9	11
Grand Total	7	6	1	0	14	0	0	3	3	0	16	0	16	0	0	0	0	3	33	36
Approch %	50	42.9	7.1			0	0	100		0	100	0	48.5	0	0	0	0	8.3	91.7	
Total %	21.2	18.2	3		42.4	0	0	9.1		0	48.5	0	48.5	0	0	0	0	8.3	91.7	

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

Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound							
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	1	0	0	4	0	0	1	1	0	0	0	6	0	0	0	0	1	11	12
04:15 PM	2	0	0	0	2	0	0	0	0	6	0	0	6	0	0	0	0	0	8	8
04:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	2
Total Volume	5	4	0	0	9	0	0	1	1	0	14	0	14	0	0	0	0	0	24	25
% App. Total	55.6	44.4	0	0	55.6	0	0	100	55.6	0	100	0	48.5	0	0	0	0	8.3	91.7	
PHF	.417	.333	.000	.563	.250	.250	.000	.583	.000	.583	.000	.583	.000	.000	.000	.000	.000	.000	.545	

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
	04:00 PM														
+0 mins.	3	1	0	0	0	1	0	0	1	0	0	0	0	0	0
+15 mins.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Total Volume	5	4	0	0	0	1	0	0	1	0	14	0	0	0	0
% App. Total	55.6	44.4	0	0	0	100	0	0	100	0	100	0	0	0	0
PHF	.417	.333	.000	.000	.000	.250	.000	.000	.250	.000	.583	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Groups Printed- 3 Axle Vehicles

Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

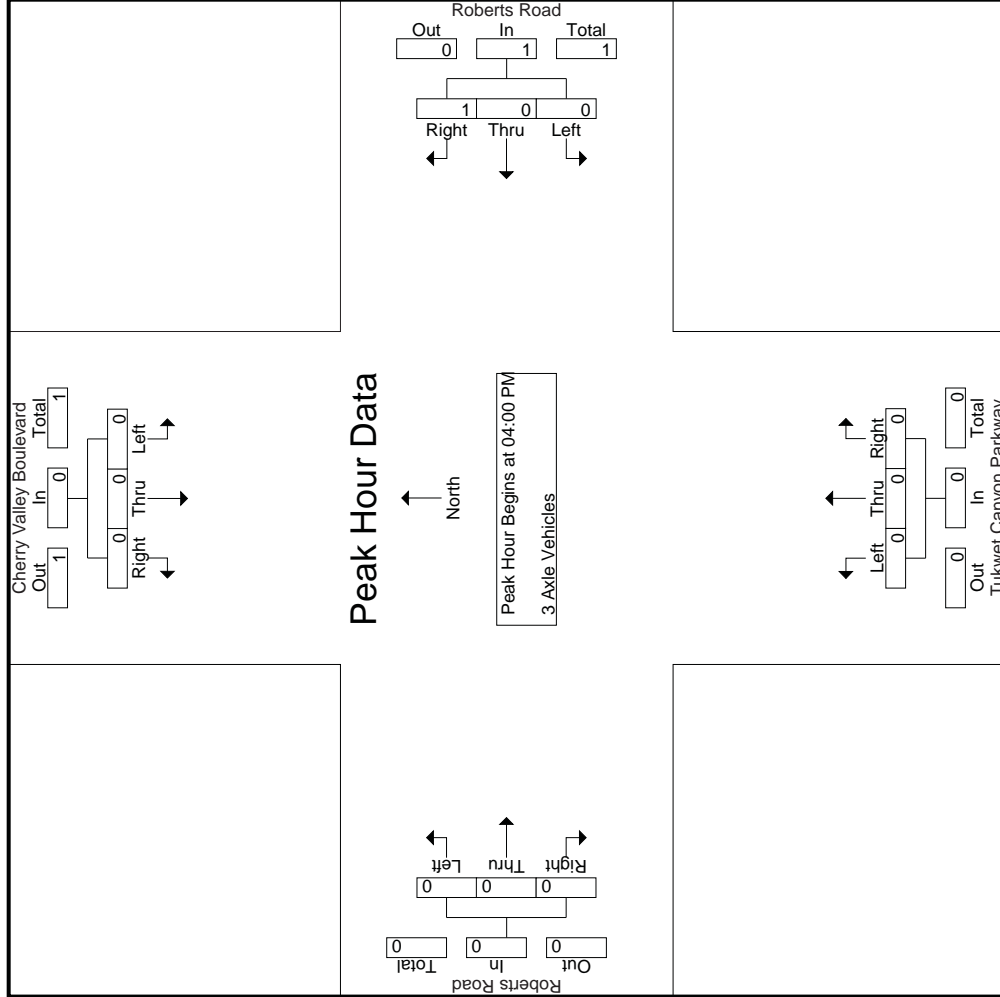
Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound					
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total		
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
	04:00 PM				04:00 PM				04:00 PM				04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	
% App. Total	0	0	0	0	0	0	100	.250	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

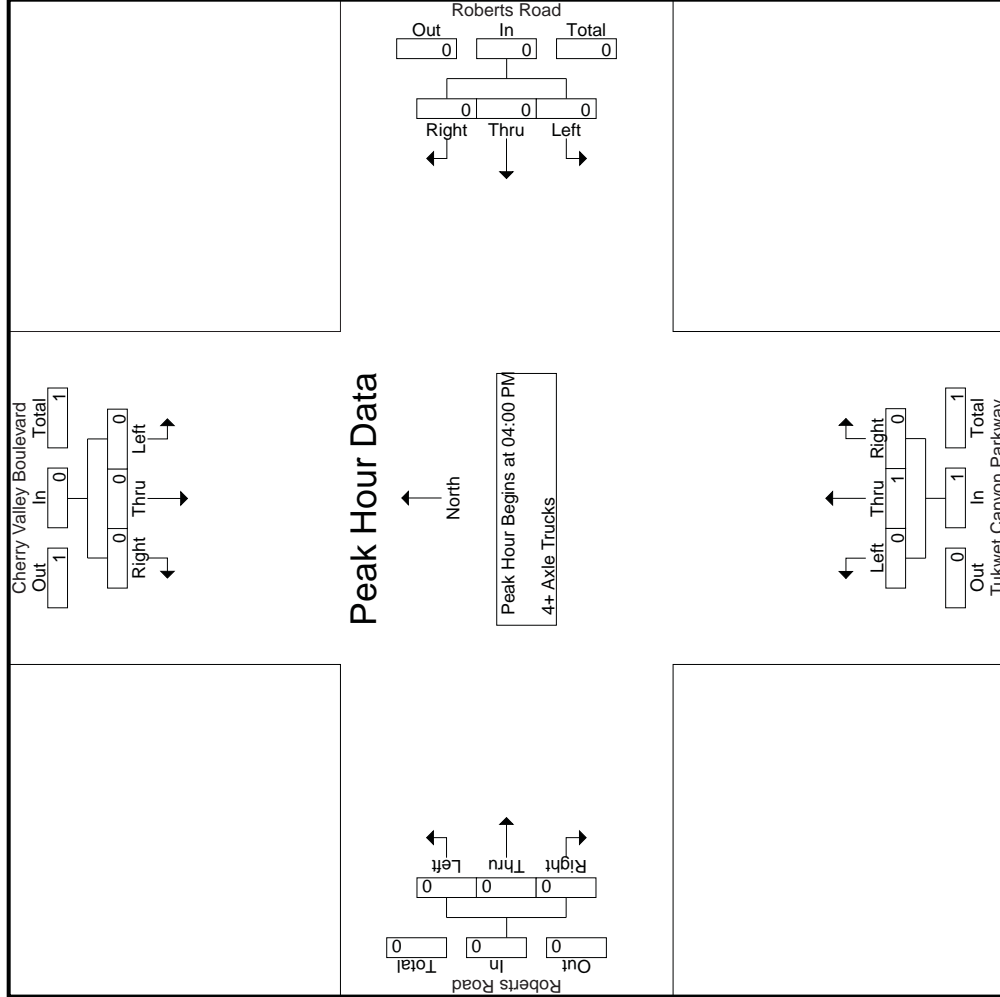
Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Approch %	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	100
Total %	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	100

Start Time	Cherry Valley Boulevard Southbound				Roberts Road Westbound				Tukwet Canyon Parkway Northbound				Roberts Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250

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

Counts Unlimited, Inc.  
PO Box 1178  
Corona, CA 92878  
(951)268-6268

City of Calimesa  
N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
E/W: Roberts Road  
Weather: Clear



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

File Name : 04\_CAL\_CV\_Rob PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 3

City of Calimesa  
 N/S: Cherry Valley Blvd/Tukwet Cyn Pkwy  
 E/W: Roberts Road  
 Weather: Clear

Start Time	Cherry Valley Boulevard Southbound			Roberts Road Westbound			Tukwet Canyon Parkway Northbound			Roberts Road Eastbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:	04:00 PM											
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	1	0	0	0	0
% App. Total	0	0	0	0	0	0	0	100	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000

Location: Calimesa  
 N/S: Cherry Valley Boulevard  
 E/W: Roberts Road



Date: 5/19/2022  
 Day: Thursday

### PEDESTRIANS

	North Leg Cherry Valley Boulevard Pedestrians	East Leg Roberts Road Pedestrians	South Leg Tukwet Canyon Pkwy Pedestrians	West Leg Roberts Road Pedestrians	
7:00 AM	0	0	3	0	3
7:15 AM	0	0	5	0	5
7:30 AM	0	0	0	0	0
7:45 AM	1	0	2	1	4
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	2	0	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	12	1	14

	North Leg Cherry Valley Boulevard Pedestrians	East Leg Roberts Road Pedestrians	South Leg Tukwet Canyon Pkwy Pedestrians	West Leg Roberts Road Pedestrians	
4:00 PM	0	0	1	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	0	1
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
TOTAL VOLUMES:	0	0	2	0	2

Location: Calimesa  
 N/S: Cherry Valley Boulevard  
 E/W: Roberts Road



Date: 5/19/2022  
 Day: Thursday

### BICYCLES

	Southbound Cherry Valley Boulevard			Westbound Roberts Road			Northbound Tukwet Canyon Pkwy			Eastbound Roberts Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	0	0	0	2

	Southbound Cherry Valley Boulevard			Westbound Roberts Road			Northbound Tukwet Canyon Pkwy			Eastbound Roberts Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	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
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

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

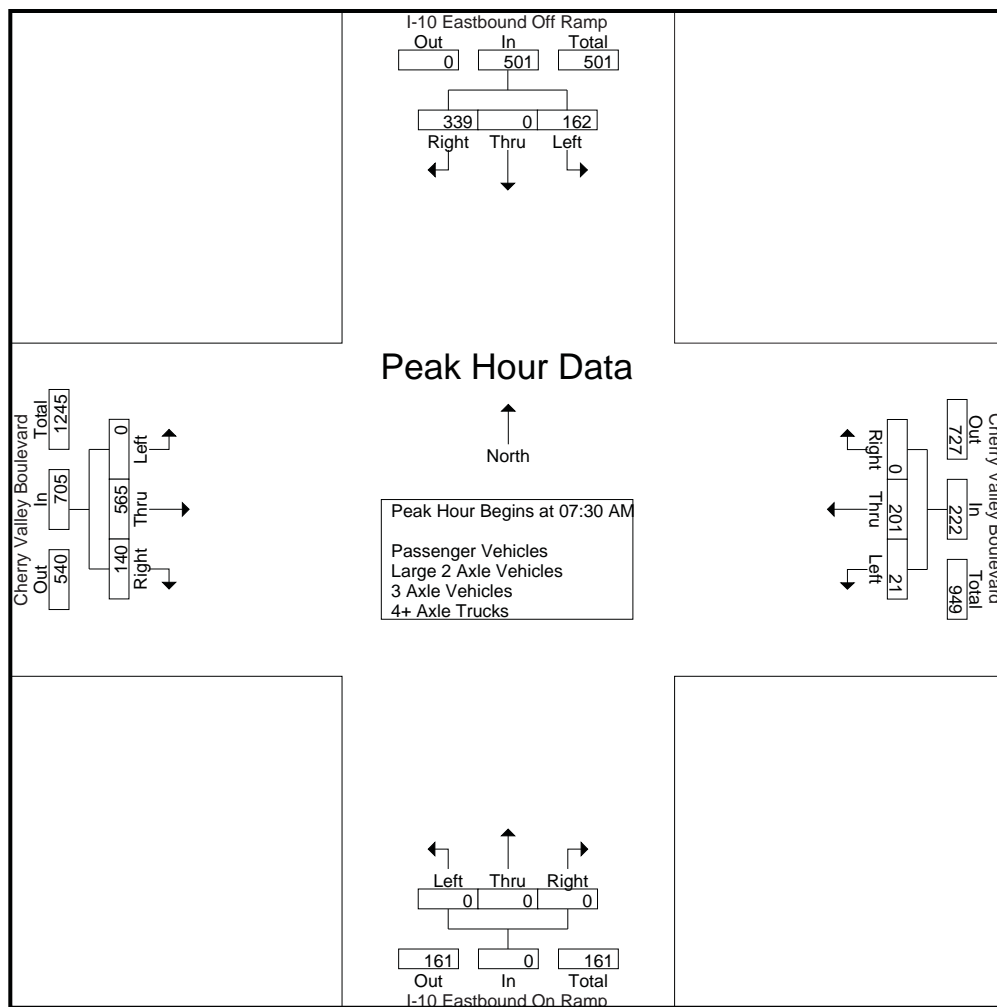
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	26	0	53	79	7	27	0	34	0	0	0	0	0	176	23	199	312
07:15 AM	27	0	67	94	2	26	0	28	0	0	0	0	0	167	20	187	309
07:30 AM	31	0	85	116	3	47	0	50	0	0	0	0	0	163	34	197	363
07:45 AM	57	0	92	149	5	53	0	58	0	0	0	0	0	136	43	179	386
<b>Total</b>	<b>141</b>	<b>0</b>	<b>297</b>	<b>438</b>	<b>17</b>	<b>153</b>	<b>0</b>	<b>170</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>642</b>	<b>120</b>	<b>762</b>	<b>1370</b>
08:00 AM	42	0	88	130	5	39	0	44	0	0	0	0	0	138	34	172	346
08:15 AM	32	0	74	106	8	62	0	70	0	0	0	0	0	128	29	157	333
08:30 AM	38	0	64	102	1	51	0	52	0	0	0	0	0	103	30	133	287
08:45 AM	25	0	58	83	7	48	0	55	0	0	0	0	0	120	31	151	289
<b>Total</b>	<b>137</b>	<b>0</b>	<b>284</b>	<b>421</b>	<b>21</b>	<b>200</b>	<b>0</b>	<b>221</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>489</b>	<b>124</b>	<b>613</b>	<b>1255</b>
<b>Grand Total</b>	<b>278</b>	<b>0</b>	<b>581</b>	<b>859</b>	<b>38</b>	<b>353</b>	<b>0</b>	<b>391</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1131</b>	<b>244</b>	<b>1375</b>	<b>2625</b>
Apprch %	32.4	0	67.6		9.7	90.3	0		0	0	0		0	82.3	17.7		
Total %	10.6	0	22.1	32.7	1.4	13.4	0	14.9	0	0	0	0	0	43.1	9.3	52.4	
Passenger Vehicles	267	0	559	826	33	326	0	359	0	0	0	0	0	1106	228	1334	2519
% Passenger Vehicles	96	0	96.2	96.2	86.8	92.4	0	91.8	0	0	0	0	0	97.8	93.4	97	96
Large 2 Axle Vehicles	9	0	17	26	1	16	0	17	0	0	0	0	0	15	11	26	69
% Large 2 Axle Vehicles	3.2	0	2.9	3	2.6	4.5	0	4.3	0	0	0	0	0	1.3	4.5	1.9	2.6
3 Axle Vehicles	0	0	1	1	1	8	0	9	0	0	0	0	0	8	1	9	19
% 3 Axle Vehicles	0	0	0.2	0.1	2.6	2.3	0	2.3	0	0	0	0	0	0.7	0.4	0.7	0.7
4+ Axle Trucks	2	0	4	6	3	3	0	6	0	0	0	0	0	2	4	6	18
% 4+ Axle Trucks	0.7	0	0.7	0.7	7.9	0.8	0	1.5	0	0	0	0	0	0.2	1.6	0.4	0.7

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	31	0	85	116	3	47	0	50	0	0	0	0	0	<b>163</b>	34	<b>197</b>	363
07:45 AM	<b>57</b>	0	<b>92</b>	<b>149</b>	5	53	0	58	0	0	0	0	0	136	<b>43</b>	179	<b>386</b>
08:00 AM	42	0	88	130	5	39	0	44	0	0	0	0	0	138	34	172	346
08:15 AM	32	0	74	106	<b>8</b>	<b>62</b>	0	<b>70</b>	0	0	0	0	0	128	29	157	333
Total Volume	162	0	339	501	21	201	0	222	0	0	0	0	0	565	140	705	1428
% App. Total	32.3	0	67.7		9.5	90.5	0		0	0	0		0	80.1	19.9		
PHF	.711	.000	.921	.841	.656	.810	.000	.793	.000	.000	.000	.000	.000	.867	.814	.895	.925

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:30 AM				07:45 AM				07:00 AM				07:00 AM			
+0 mins.	31	0	85	116	5	53	0	58	0	0	0	0	0	176	23	199
+15 mins.	57	0	92	149	5	39	0	44	0	0	0	0	0	167	20	187
+30 mins.	42	0	88	130	8	62	0	70	0	0	0	0	0	163	34	197
+45 mins.	32	0	74	106	1	51	0	52	0	0	0	0	0	136	43	179
Total Volume	162	0	339	501	19	205	0	224	0	0	0	0	0	642	120	762
% App. Total	32.3	0	67.7		8.5	91.5	0		0	0	0		0	84.3	15.7	
PHF	.711	.000	.921	.841	.594	.827	.000	.800	.000	.000	.000	.000	.000	.912	.698	.957

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	24	0	47	71	7	26	0	33	0	0	0	0	0	175	22	197	301
07:15 AM	27	0	63	90	2	26	0	28	0	0	0	0	0	164	18	182	300
07:30 AM	30	0	83	113	3	46	0	49	0	0	0	0	0	160	33	193	355
07:45 AM	56	0	90	146	5	47	0	52	0	0	0	0	0	136	40	176	374
Total	137	0	283	420	17	145	0	162	0	0	0	0	0	635	113	748	1330
08:00 AM	42	0	84	126	5	36	0	41	0	0	0	0	0	131	31	162	329
08:15 AM	26	0	73	99	6	57	0	63	0	0	0	0	0	124	27	151	313
08:30 AM	37	0	62	99	1	45	0	46	0	0	0	0	0	100	27	127	272
08:45 AM	25	0	57	82	4	43	0	47	0	0	0	0	0	116	30	146	275
Total	130	0	276	406	16	181	0	197	0	0	0	0	0	471	115	586	1189
Grand Total	267	0	559	826	33	326	0	359	0	0	0	0	0	1106	228	1334	2519
Apprch %	32.3	0	67.7		9.2	90.8	0		0	0	0	0	0	82.9	17.1		
Total %	10.6	0	22.2	32.8	1.3	12.9	0	14.3	0	0	0	0	0	43.9	9.1	53	

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	30	0	83	113	3	46	0	49	0	0	0	0	0	160	33	193	355
07:45 AM	56	0	90	146	5	47	0	52	0	0	0	0	0	136	40	176	374
08:00 AM	42	0	84	126	5	36	0	41	0	0	0	0	0	131	31	162	329
08:15 AM	26	0	73	99	6	57	0	63	0	0	0	0	0	124	27	151	313
Total Volume	154	0	330	484	19	186	0	205	0	0	0	0	0	551	131	682	1371
% App. Total	31.8	0	68.2		9.3	90.7	0		0	0	0	0	0	80.8	19.2		
PHF	.688	.000	.917	.829	.792	.816	.000	.813	.000	.000	.000	.000	.000	.861	.819	.883	.916

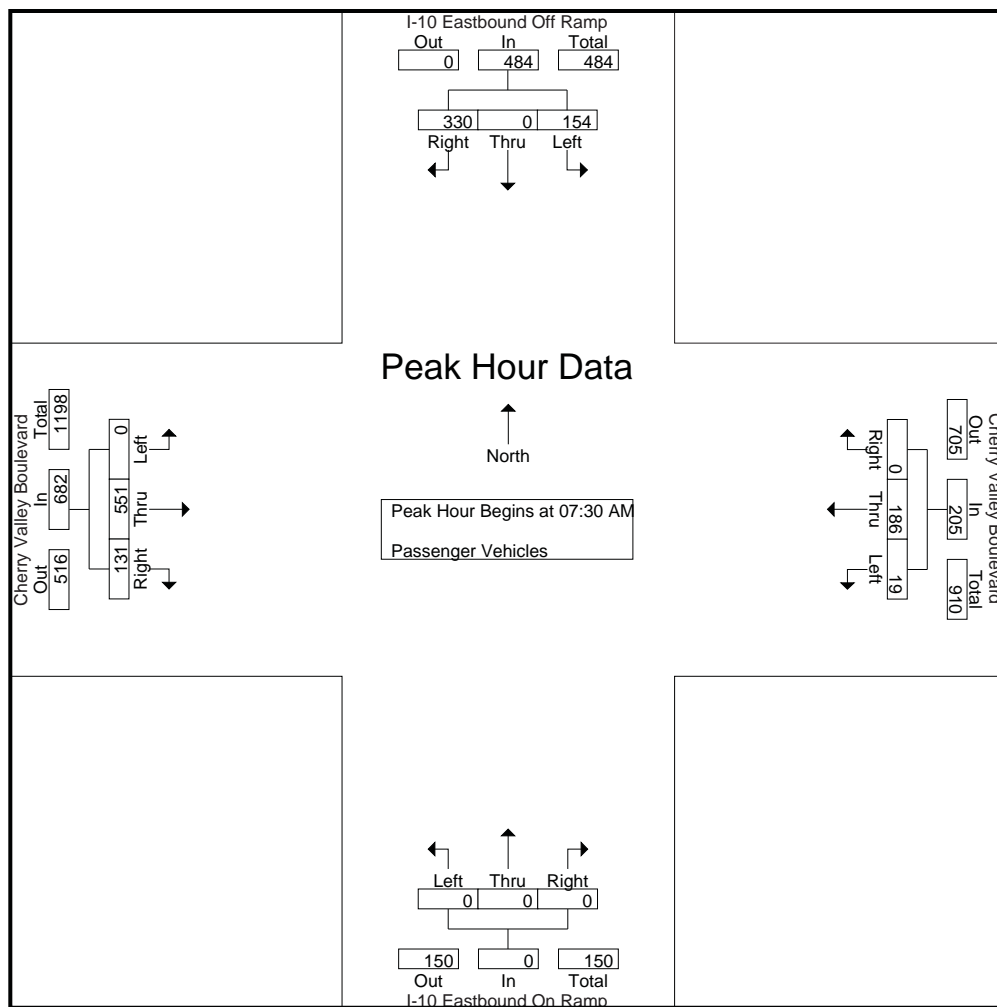
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:30 AM



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	30	0	83	113	3	46	0	49	0	0	0	0	0	<b>160</b>	33	<b>193</b>
+15 mins.	<b>56</b>	0	<b>90</b>	<b>146</b>	5	47	0	52	0	0	0	0	0	136	<b>40</b>	176
+30 mins.	42	0	84	126	5	36	0	41	0	0	0	0	0	131	31	162
+45 mins.	26	0	73	99	<b>6</b>	<b>57</b>	0	<b>63</b>	0	0	0	0	0	124	27	151
Total Volume	154	0	330	484	19	186	0	205	0	0	0	0	0	551	131	682
% App. Total	31.8	0	68.2		9.3	90.7	0		0	0	0		0	80.8	19.2	
PHF	.688	.000	.917	.829	.792	.816	.000	.813	.000	.000	.000	.000	.000	.861	.819	.883

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	2	0	4	6	0	0	0	0	0	0	0	0	0	1	1	2	8
07:15 AM	0	0	3	3	0	0	0	0	0	0	0	0	0	1	1	2	5
07:30 AM	1	0	2	3	0	1	0	1	0	0	0	0	0	2	1	3	7
07:45 AM	1	0	2	3	0	2	0	2	0	0	0	0	0	0	3	3	8
<b>Total</b>	<b>4</b>	<b>0</b>	<b>11</b>	<b>15</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>10</b>	<b>28</b>
08:00 AM	0	0	2	2	0	2	0	2	0	0	0	0	0	4	0	4	8
08:15 AM	4	0	1	5	0	4	0	4	0	0	0	0	0	3	2	5	14
08:30 AM	1	0	2	3	0	3	0	3	0	0	0	0	0	2	3	5	11
08:45 AM	0	0	1	1	1	4	0	5	0	0	0	0	0	2	0	2	8
<b>Total</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>1</b>	<b>13</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>41</b>
<b>Grand Total</b>	<b>9</b>	<b>0</b>	<b>17</b>	<b>26</b>	<b>1</b>	<b>16</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>11</b>	<b>26</b>	<b>69</b>
Apprch %	34.6	0	65.4		5.9	94.1	0		0	0	0		0	57.7	42.3		
Total %	13	0	24.6	37.7	1.4	23.2	0	24.6	0	0	0		0	21.7	15.9	37.7	

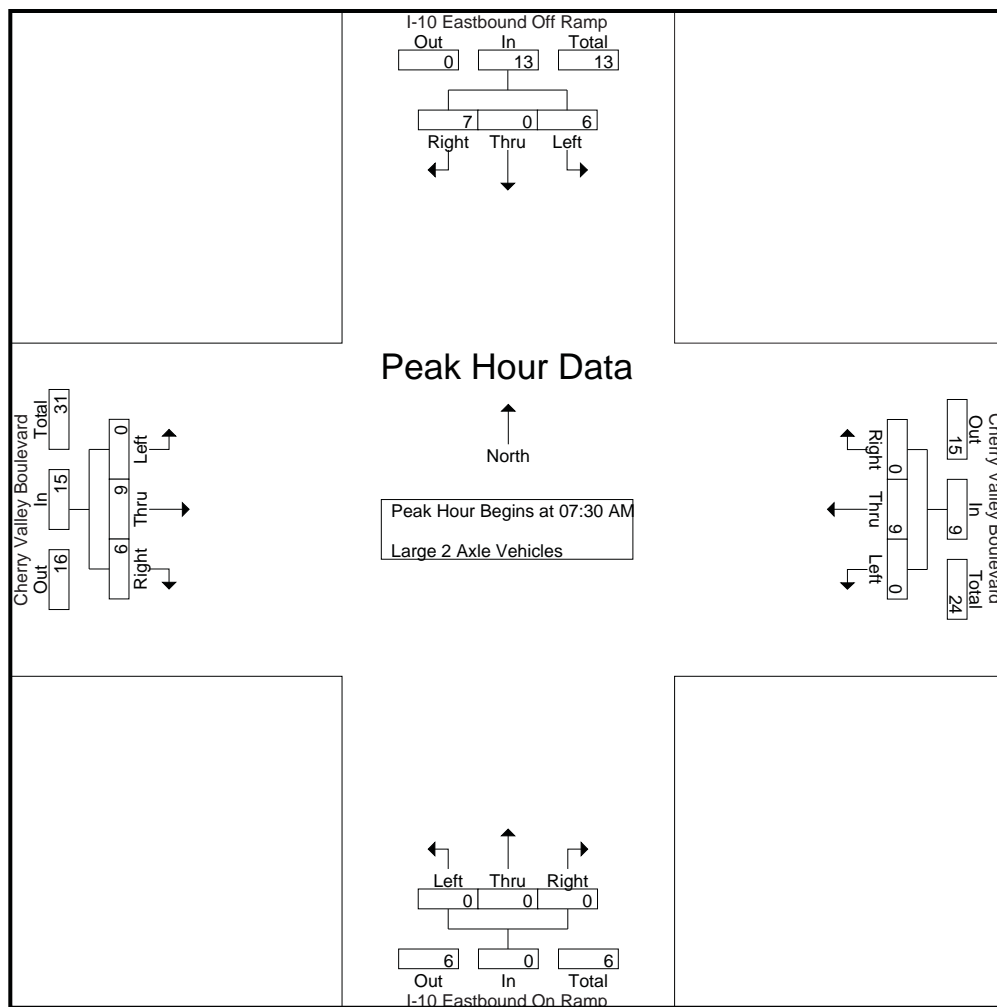
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	1	0	2	3	0	1	0	1	0	0	0	0	0	2	1	3	7
07:45 AM	1	0	2	3	0	2	0	2	0	0	0	0	0	0	3	3	8
08:00 AM	0	0	2	2	0	2	0	2	0	0	0	0	0	4	0	4	8
08:15 AM	4	0	1	5	0	4	0	4	0	0	0	0	0	3	2	5	14
<b>Total Volume</b>	<b>6</b>	<b>0</b>	<b>7</b>	<b>13</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>6</b>	<b>15</b>	<b>37</b>
% App. Total	46.2	0	53.8		0	100	0		0	0	0		0	60	40		
PHF	.375	.000	.875	.650	.000	.563	.000	.563	.000	.000	.000	.000	.000	.563	.500	.750	.661

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	1	0	2	3	0	1	0	1	0	0	0	0	0	2	1	3
+15 mins.	1	0	2	3	0	2	0	2	0	0	0	0	0	0	3	3
+30 mins.	0	0	2	2	0	2	0	2	0	0	0	0	0	4	0	4
+45 mins.	4	0	1	5	0	4	0	4	0	0	0	0	0	3	2	5
Total Volume	6	0	7	13	0	9	0	9	0	0	0	0	0	9	6	15
% App. Total	46.2	0	53.8		0	100	0		0	0	0		0	60	40	
PHF	.375	.000	.875	.650	.000	.563	.000	.563	.000	.000	.000	.000	.000	.563	.500	.750

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
08:00 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	2	1	3	5
08:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	1	1	1	5	0	6	0	0	0	0	0	6	1	7	14
Grand Total	0	0	1	1	1	8	0	9	0	0	0	0	0	8	1	9	19
Apprch %	0	0	100		11.1	88.9	0		0	0	0		0	88.9	11.1		
Total %	0	0	5.3	5.3	5.3	42.1	0	47.4	0	0	0	0	0	42.1	5.3	47.4	

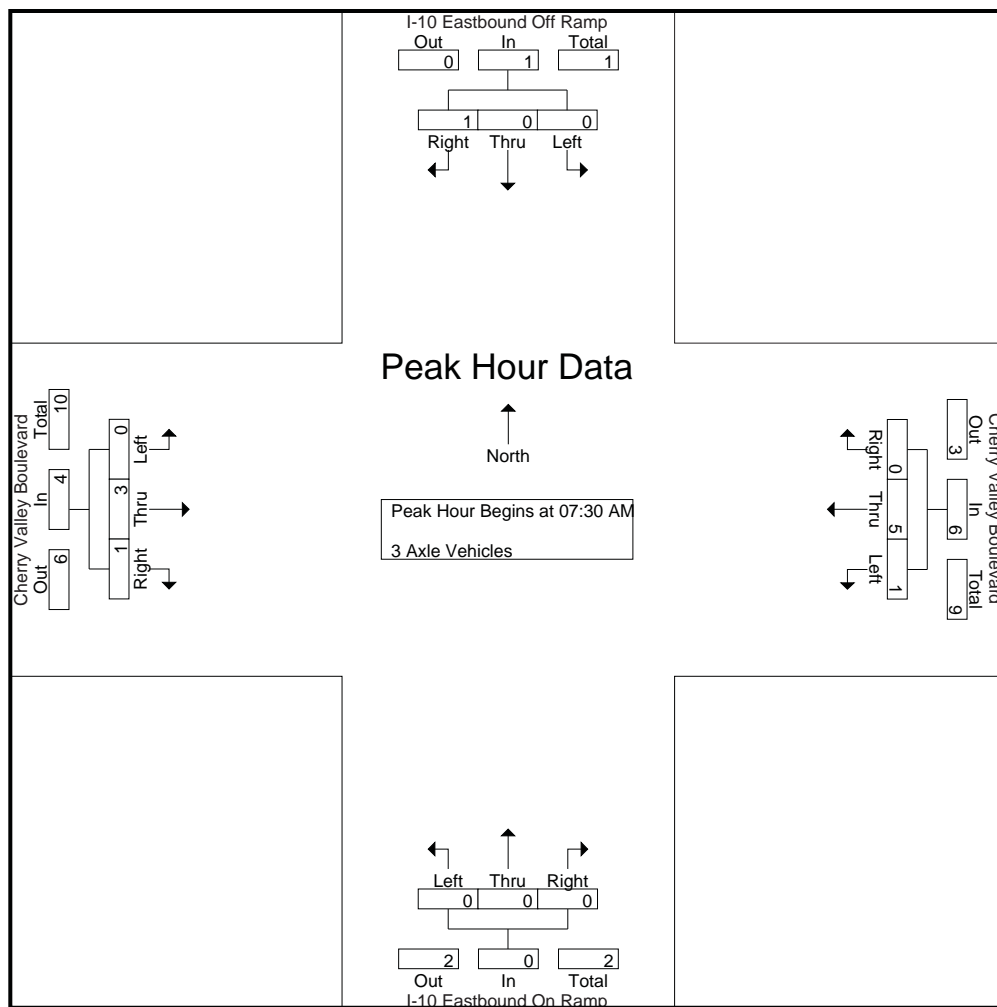
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	2	1	3	5
08:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
Total Volume	0	0	1	1	1	5	0	6	0	0	0	0	0	3	1	4	11
% App. Total	0	0	100		16.7	83.3	0		0	0	0		0	75	25		
PHF	.000	.000	.250	.250	.250	.417	.000	.500	.000	.000	.000	.000	.000	.375	.250	.333	.550

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	<b>3</b>	0	<b>3</b>	0	0	0	0	0	0	0	0
+30 mins.	0	0	<b>1</b>	<b>1</b>	0	1	0	1	0	0	0	0	0	<b>2</b>	<b>1</b>	<b>3</b>
+45 mins.	0	0	0	0	<b>1</b>	1	0	2	0	0	0	0	0	1	0	1
Total Volume	0	0	1	1	1	5	0	6	0	0	0	0	0	3	1	4
% App. Total	0	0	100		16.7	83.3	0		0	0	0		0	75	25	
PHF	.000	.000	.250	.250	.250	.417	.000	.500	.000	.000	.000	.000	.000	.375	.250	.333

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	0	2	2	0	1	0	1	0	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	0	3	3	0	2	0	2	0	0	0	0	0	1	1	2	7	
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	2	3	4	4
08:15 AM	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3	3
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1
08:45 AM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	1	3	3
Total	2	0	1	3	3	1	0	4	0	0	0	0	0	1	3	4	11	
Grand Total	2	0	4	6	3	3	0	6	0	0	0	0	0	2	4	6	18	
Apprch %	33.3	0	66.7		50	50	0		0	0	0		0	33.3	66.7			
Total %	11.1	0	22.2	33.3	16.7	16.7	0	33.3	0	0	0	0	0	11.1	22.2	33.3		

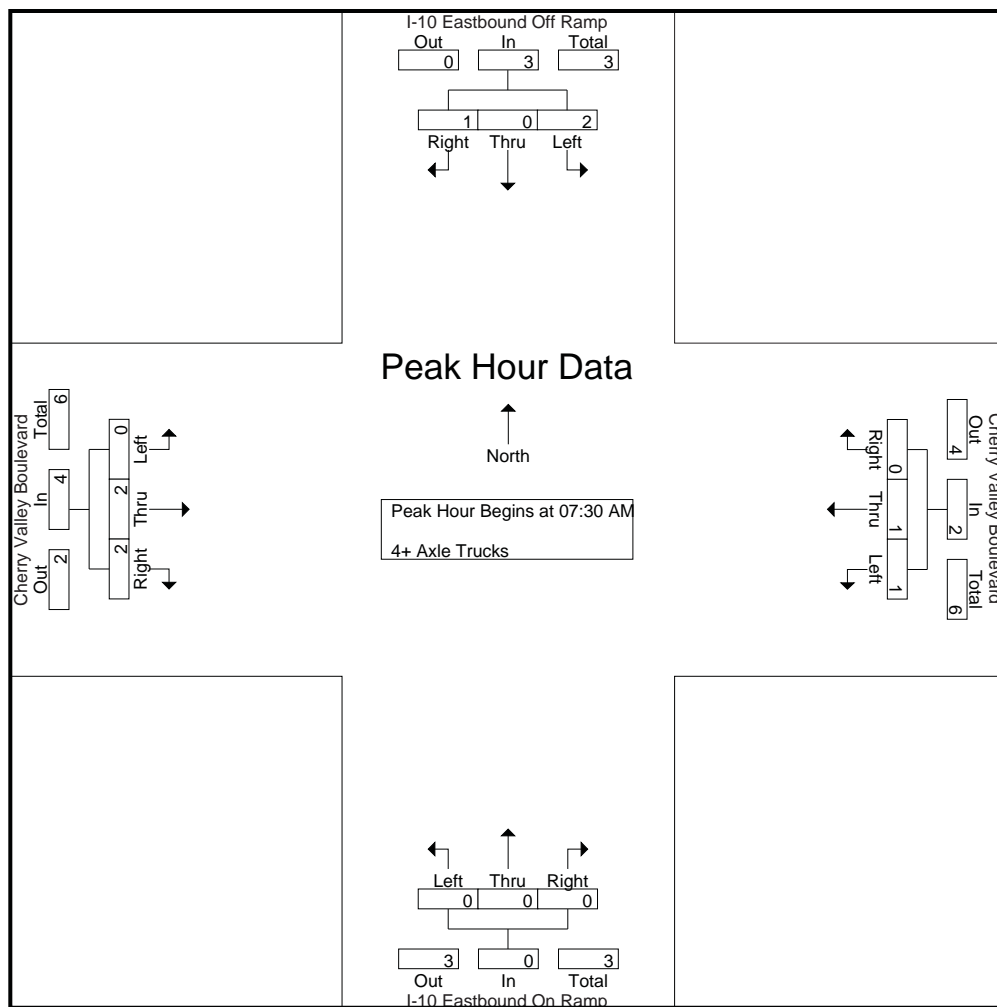
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	2	3	4	4
08:15 AM	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3	3
Total Volume	2	0	1	3	1	1	0	2	0	0	0	0	0	2	2	4	9	9
% App. Total	66.7	0	33.3		50	50	0		0	0	0		0	50	50			
PHF	.250	.000	.250	.375	.250	.250	.000	.500	.000	.000	.000	.000	.000	.500	.250	.333	.563	

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	1	2	3
+45 mins.	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0
Total Volume	2	0	1	3	1	1	0	2	0	0	0	0	0	2	2	4
% App. Total	66.7	0	33.3		50	50	0		0	0	0		0	50	50	
PHF	.250	.000	.250	.375	.250	.250	.000	.500	.000	.000	.000	.000	.000	.500	.250	.333

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

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

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	66	0	139	205	9	65	0	74	0	0	0	0	0	111	43	154	433
04:15 PM	52	0	158	210	7	63	0	70	0	0	0	0	0	123	39	162	442
04:30 PM	86	0	145	231	8	60	0	68	0	0	0	0	0	94	43	137	436
04:45 PM	71	0	161	232	2	66	0	68	0	0	0	0	0	101	33	134	434
<b>Total</b>	<b>275</b>	<b>0</b>	<b>603</b>	<b>878</b>	<b>26</b>	<b>254</b>	<b>0</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>429</b>	<b>158</b>	<b>587</b>	<b>1745</b>
05:00 PM	80	0	138	218	7	65	0	72	0	0	0	0	0	85	34	119	409
05:15 PM	55	0	149	204	5	64	0	69	0	0	0	0	0	86	25	111	384
05:30 PM	79	0	144	223	4	57	0	61	0	0	0	0	0	92	38	130	414
05:45 PM	70	1	155	226	4	67	0	71	0	0	0	0	0	115	26	141	438
<b>Total</b>	<b>284</b>	<b>1</b>	<b>586</b>	<b>871</b>	<b>20</b>	<b>253</b>	<b>0</b>	<b>273</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>378</b>	<b>123</b>	<b>501</b>	<b>1645</b>
<b>Grand Total</b>	<b>559</b>	<b>1</b>	<b>1189</b>	<b>1749</b>	<b>46</b>	<b>507</b>	<b>0</b>	<b>553</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>807</b>	<b>281</b>	<b>1088</b>	<b>3390</b>
Apprch %	32	0.1	68		8.3	91.7	0		0	0	0		0	74.2	25.8		
Total %	16.5	0	35.1	51.6	1.4	15	0	16.3	0	0	0	0	0	23.8	8.3	32.1	
Passenger Vehicles	547	1	1177	1725	43	505	0	548	0	0	0	0	0	801	279	1080	3353
% Passenger Vehicles	97.9	100	99	98.6	93.5	99.6	0	99.1	0	0	0	0	0	99.3	99.3	99.3	98.9
Large 2 Axle Vehicles	9	0	10	19	2	2	0	4	0	0	0	0	0	5	2	7	30
% Large 2 Axle Vehicles	1.6	0	0.8	1.1	4.3	0.4	0	0.7	0	0	0	0	0	0.6	0.7	0.6	0.9
3 Axle Vehicles	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	1	3
% 3 Axle Vehicles	0.2	0	0	0.1	2.2	0	0	0.2	0	0	0	0	0	0.1	0	0.1	0.1
4+ Axle Trucks	2	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
% 4+ Axle Trucks	0.4	0	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.1

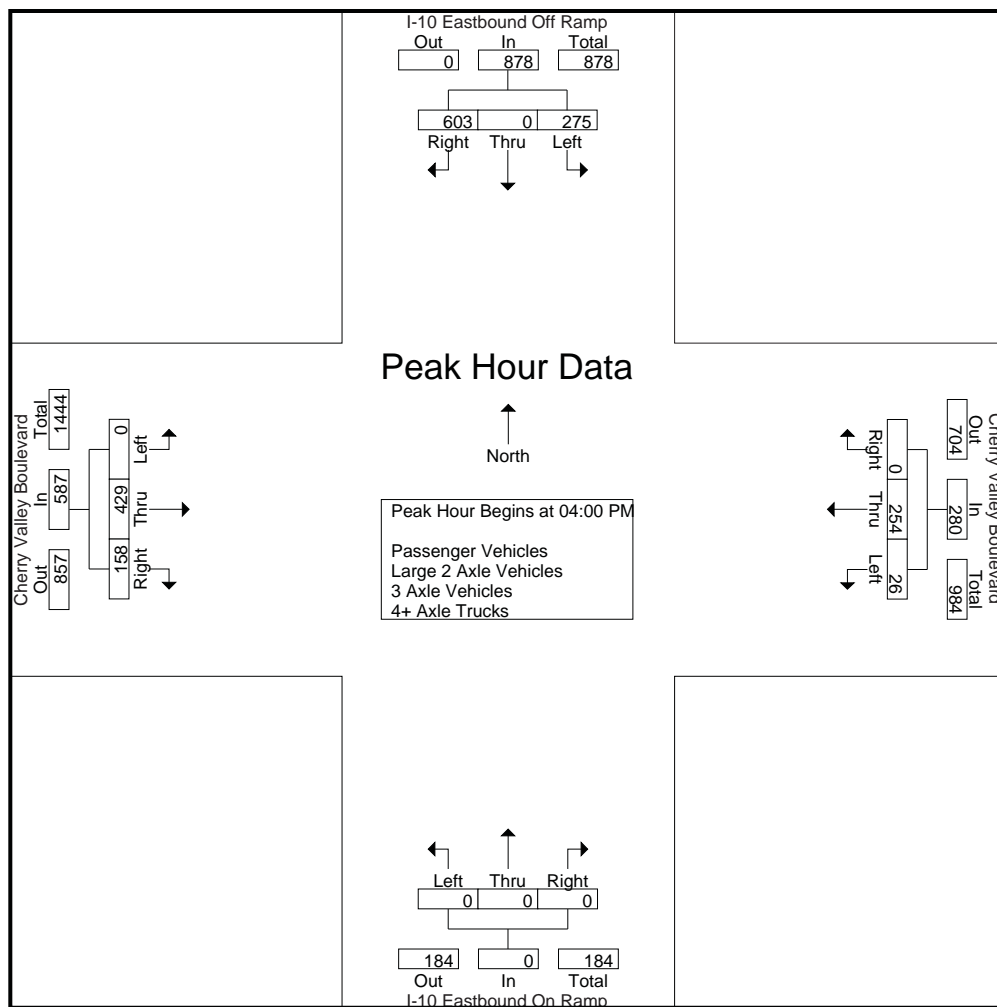
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	66	0	139	205	<b>9</b>	65	0	<b>74</b>	0	0	0	0	0	111	<b>43</b>	154	433
04:15 PM	52	0	158	210	7	63	0	70	0	0	0	0	0	<b>123</b>	39	<b>162</b>	<b>442</b>
04:30 PM	<b>86</b>	0	145	231	8	60	0	68	0	0	0	0	0	94	43	137	436
04:45 PM	71	0	<b>161</b>	<b>232</b>	2	<b>66</b>	0	68	0	0	0	0	0	101	33	134	434
Total Volume	275	0	603	878	26	254	0	280	0	0	0	0	0	429	158	587	1745
% App. Total	31.3	0	68.7		9.3	90.7	0		0	0	0		0	73.1	26.9		
PHF	.799	.000	.936	.946	.722	.962	.000	.946	.000	.000	.000	.000	.000	.872	.919	.906	.987



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:15 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	52	0	158	210	<b>9</b>	65	0	<b>74</b>	0	0	0	0	0	111	<b>43</b>	154
+15 mins.	<b>86</b>	0	145	231	7	63	0	70	0	0	0	0	0	<b>123</b>	39	<b>162</b>
+30 mins.	71	0	<b>161</b>	<b>232</b>	8	60	0	68	0	0	0	0	0	94	43	137
+45 mins.	80	0	138	218	2	<b>66</b>	0	68	0	0	0	0	0	101	33	134
Total Volume	289	0	602	891	26	254	0	280	0	0	0	0	0	429	158	587
% App. Total	32.4	0	67.6		9.3	90.7	0		0	0	0		0	73.1	26.9	
PHF	.840	.000	.935	.960	.722	.962	.000	.946	.000	.000	.000	.000	.000	.872	.919	.906

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

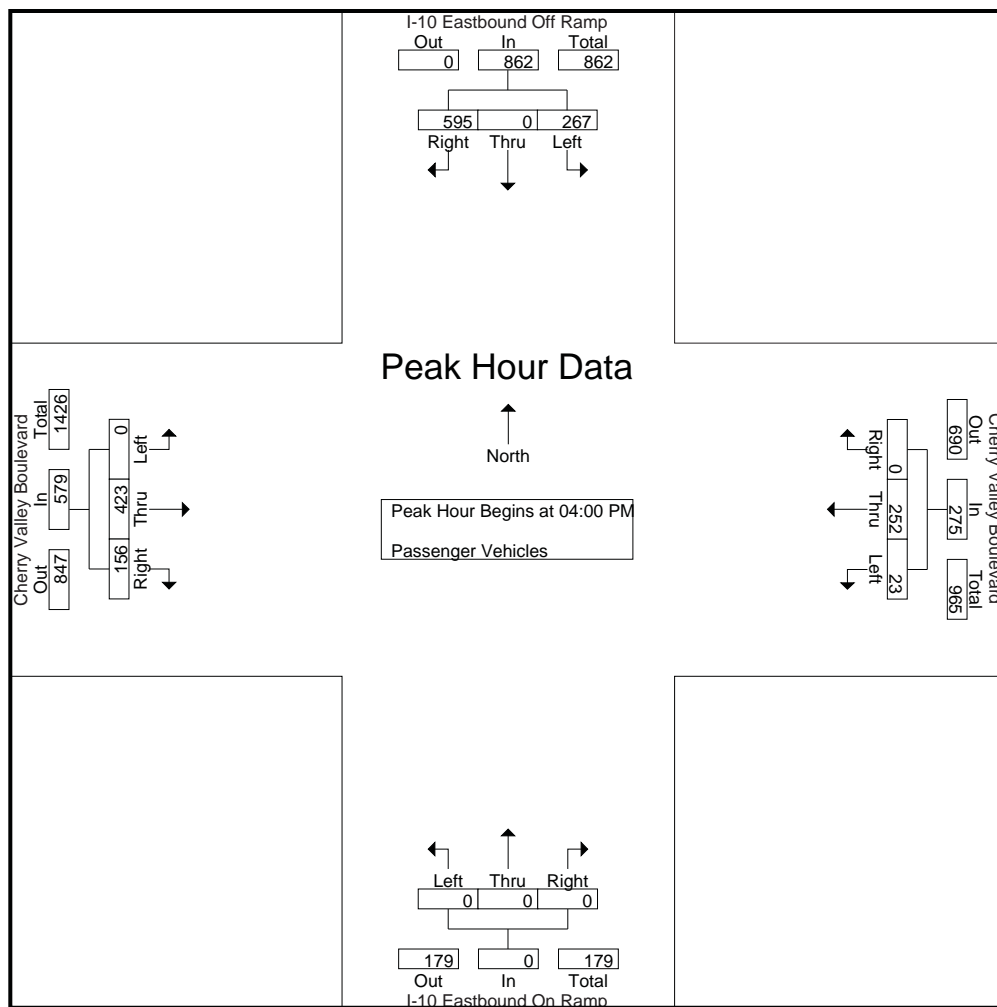
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	64	0	136	200	9	65	0	74	0	0	0	0	0	110	43	153	427
04:15 PM	51	0	155	206	6	62	0	68	0	0	0	0	0	118	37	155	429
04:30 PM	83	0	144	227	6	59	0	65	0	0	0	0	0	94	43	137	429
04:45 PM	69	0	160	229	2	66	0	68	0	0	0	0	0	101	33	134	431
<b>Total</b>	<b>267</b>	<b>0</b>	<b>595</b>	<b>862</b>	<b>23</b>	<b>252</b>	<b>0</b>	<b>275</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>423</b>	<b>156</b>	<b>579</b>	<b>1716</b>
05:00 PM	79	0	135	214	7	65	0	72	0	0	0	0	0	85	34	119	405
05:15 PM	54	0	149	203	5	64	0	69	0	0	0	0	0	86	25	111	383
05:30 PM	78	0	144	222	4	57	0	61	0	0	0	0	0	92	38	130	413
05:45 PM	69	1	154	224	4	67	0	71	0	0	0	0	0	115	26	141	436
<b>Total</b>	<b>280</b>	<b>1</b>	<b>582</b>	<b>863</b>	<b>20</b>	<b>253</b>	<b>0</b>	<b>273</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>378</b>	<b>123</b>	<b>501</b>	<b>1637</b>
<b>Grand Total</b>	<b>547</b>	<b>1</b>	<b>1177</b>	<b>1725</b>	<b>43</b>	<b>505</b>	<b>0</b>	<b>548</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>801</b>	<b>279</b>	<b>1080</b>	<b>3353</b>
Apprch %	31.7	0.1	68.2		7.8	92.2	0		0	0	0		0	74.2	25.8		
Total %	16.3	0	35.1	51.4	1.3	15.1	0	16.3	0	0	0	0	0	23.9	8.3	32.2	

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	64	0	136	200	<b>9</b>	65	0	<b>74</b>	0	0	0	0	0	110	<b>43</b>	153	427
04:15 PM	51	0	155	206	6	62	0	68	0	0	0	0	0	<b>118</b>	37	<b>155</b>	429
04:30 PM	<b>83</b>	0	144	227	6	59	0	65	0	0	0	0	0	94	43	137	429
04:45 PM	69	0	<b>160</b>	<b>229</b>	2	<b>66</b>	0	68	0	0	0	0	0	101	33	134	<b>431</b>
Total Volume	267	0	595	862	23	252	0	275	0	0	0	0	0	423	156	579	1716
% App. Total	31	0	69		8.4	91.6	0		0	0	0		0	73.1	26.9		
PHF	.804	.000	.930	.941	.639	.955	.000	.929	.000	.000	.000	.000	.000	.896	.907	.934	.995

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

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	64	0	136	200	<b>9</b>	65	0	<b>74</b>	0	0	0	0	0	110	<b>43</b>	153
+15 mins.	51	0	155	206	6	62	0	68	0	0	0	0	0	<b>118</b>	37	<b>155</b>
+30 mins.	<b>83</b>	0	144	227	6	59	0	65	0	0	0	0	0	94	43	137
+45 mins.	69	0	<b>160</b>	<b>229</b>	2	<b>66</b>	0	68	0	0	0	0	0	101	33	134
Total Volume	267	0	595	862	23	252	0	275	0	0	0	0	0	423	156	579
% App. Total	31	0	69		8.4	91.6	0		0	0	0		0	73.1	26.9	
PHF	.804	.000	.930	.941	.639	.955	.000	.929	.000	.000	.000	.000	.000	.896	.907	.934

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	4
04:15 PM	1	0	3	4	1	1	0	2	0	0	0	0	0	4	2	6	12
04:30 PM	3	0	1	4	1	1	0	2	0	0	0	0	0	0	0	0	6
04:45 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>5</b>	<b>0</b>	<b>8</b>	<b>13</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>24</b>
05:00 PM	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>
<b>Grand Total</b>	<b>9</b>	<b>0</b>	<b>10</b>	<b>19</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>30</b>
Apprch %	47.4	0	52.6		50	50	0		0	0	0		0	71.4	28.6		
Total %	30	0	33.3	63.3	6.7	6.7	0	13.3	0	0	0		0	16.7	6.7	23.3	

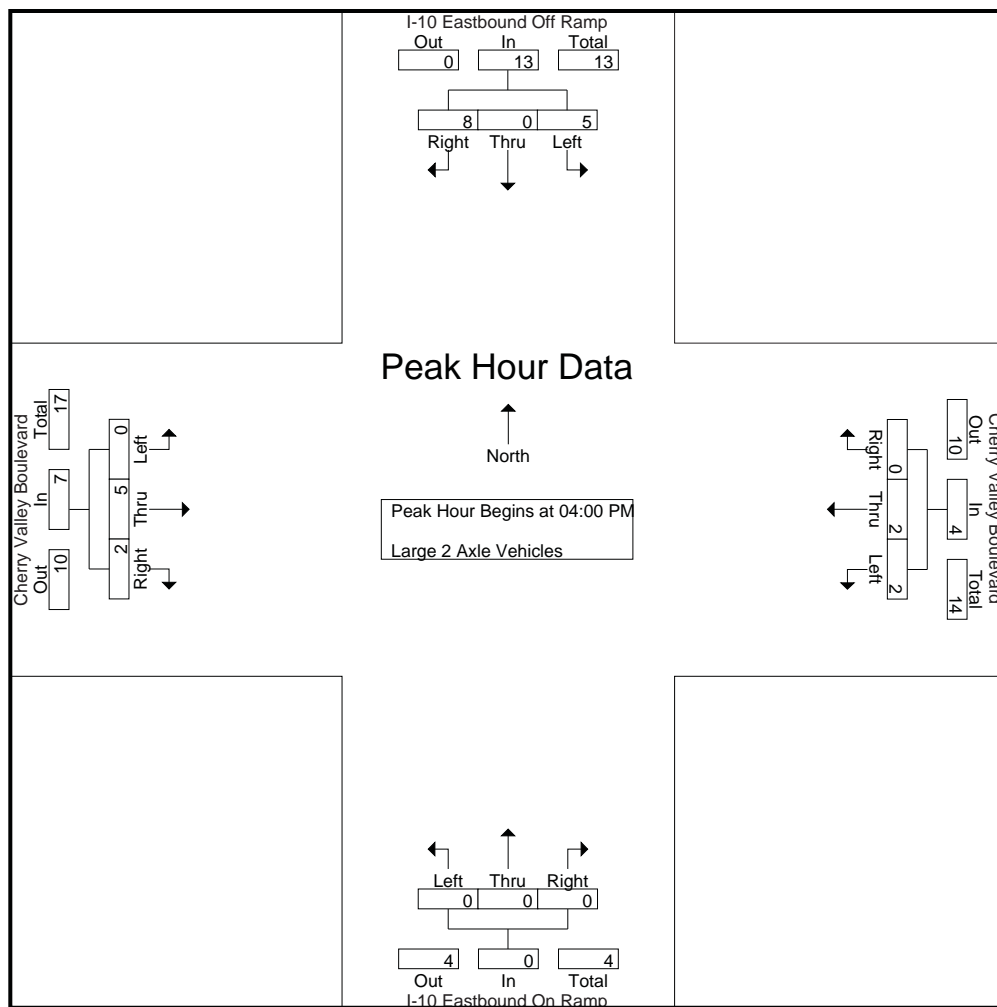
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	4
04:15 PM	1	0	3	4	1	1	0	2	0	0	0	0	0	4	2	6	12
04:30 PM	3	0	1	4	1	1	0	2	0	0	0	0	0	0	0	0	6
04:45 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
<b>Total Volume</b>	<b>5</b>	<b>0</b>	<b>8</b>	<b>13</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>24</b>
% App. Total	38.5	0	61.5		50	50	0		0	0	0		0	71.4	28.6		
PHF	.417	.000	.667	.813	.500	.500	.000	.500	.000	.000	.000	.000	.000	.313	.250	.292	.500

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	1	0	3	4	1	1	0	2	0	0	0	0	0	4	2	6
+30 mins.	3	0	1	4	1	1	0	2	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	5	0	8	13	2	2	0	4	0	0	0	0	0	5	2	7
% App. Total	38.5	0	61.5		50	50	0		0	0	0		0	71.4	28.6	
PHF	.417	.000	.667	.813	.500	.500	.000	.500	.000	.000	.000	.000	.000	.313	.250	.292

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	1	3
Apprch %	100	0	0		100	0	0		0	0	0		0	100	0		
Total %	33.3	0	0	33.3	33.3	0	0	33.3	0	0	0	0	0	33.3	0	33.3	

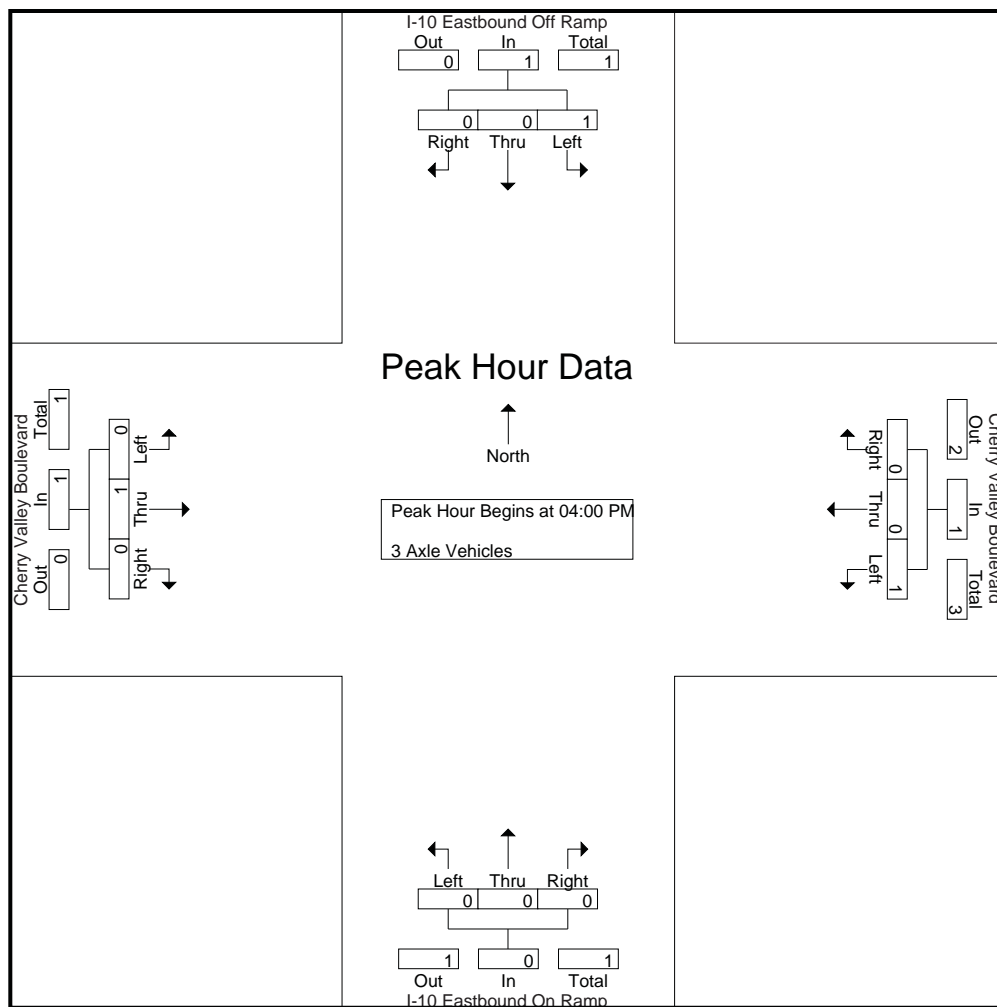
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	1	3
% App. Total	100	0	0		100	0	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.750

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	1
% App. Total	100	0	0		100	0	0		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:00 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	2	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Apprch %	50	0	50		0	0	0		0	0	0		0	0	0			
Total %	50	0	50	100	0	0	0		0	0	0		0	0	0			

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:00 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	100	0	0		0	0	0		0	0	0		0	0	0			
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

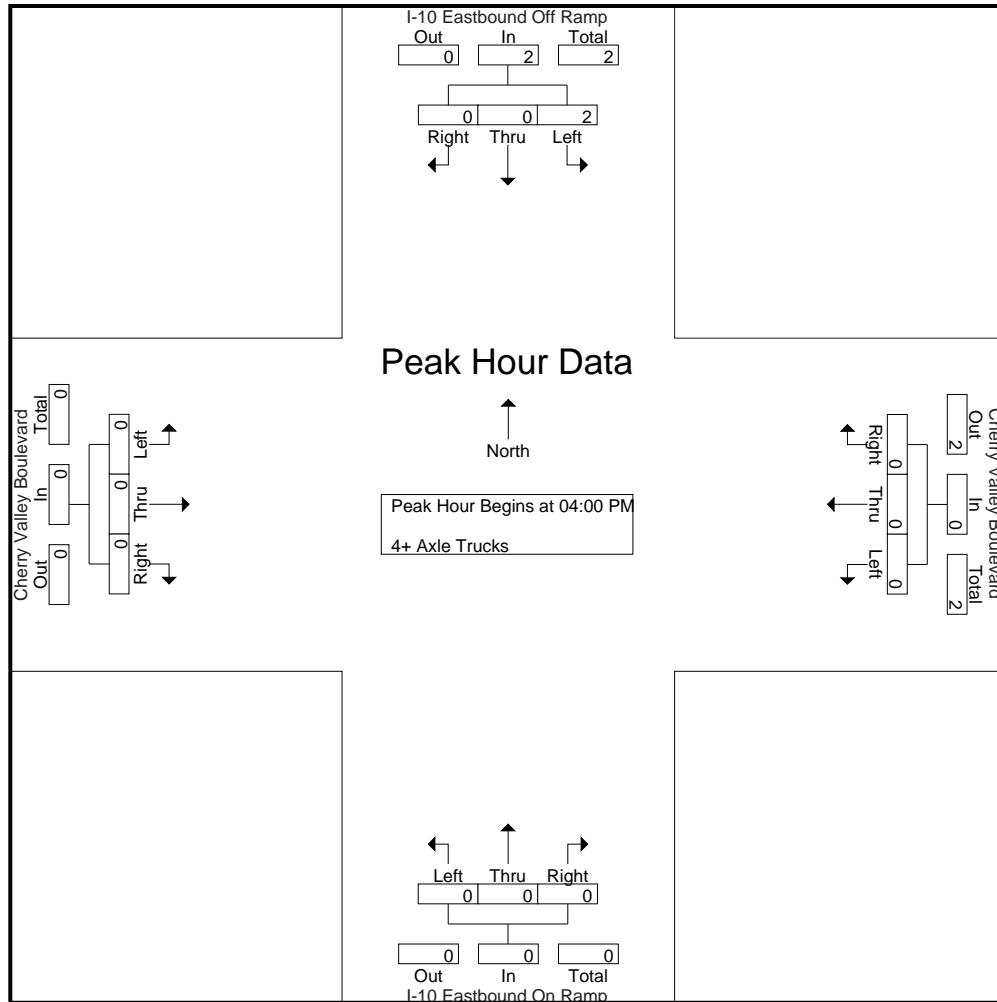
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 04:00 PM



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 05\_CAL\_10E\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	0	0		0	0	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Calimesa  
 N/S: I-10 EB Ramps  
 E/W: Cherry Valley Boulevard



Date: 5/19/2022  
 Day: Thursday

### PEDESTRIANS

	North Leg I-10 EB Ramps	East Leg Cherry Valley Boulevard	South Leg I-10 EB Ramps	West Leg Cherry Valley Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-10 EB Ramps	East Leg Cherry Valley Boulevard	South Leg I-10 EB Ramps	West Leg Cherry Valley Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 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
TOTAL VOLUMES:	0	0	0	0	0

Location: Calimesa  
 N/S: I-10 EB Ramps  
 E/W: Cherry Valley Boulevard



Date: 5/19/2022  
 Day: Thursday

### BICYCLES

	Southbound I-10 EB Ramps			Westbound Cherry Valley Boulevard			Northbound I-10 EB Ramps			Eastbound Cherry Valley Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-10 EB Ramps			Westbound Cherry Valley Boulevard			Northbound I-10 EB Ramps			Eastbound Cherry Valley Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	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
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

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

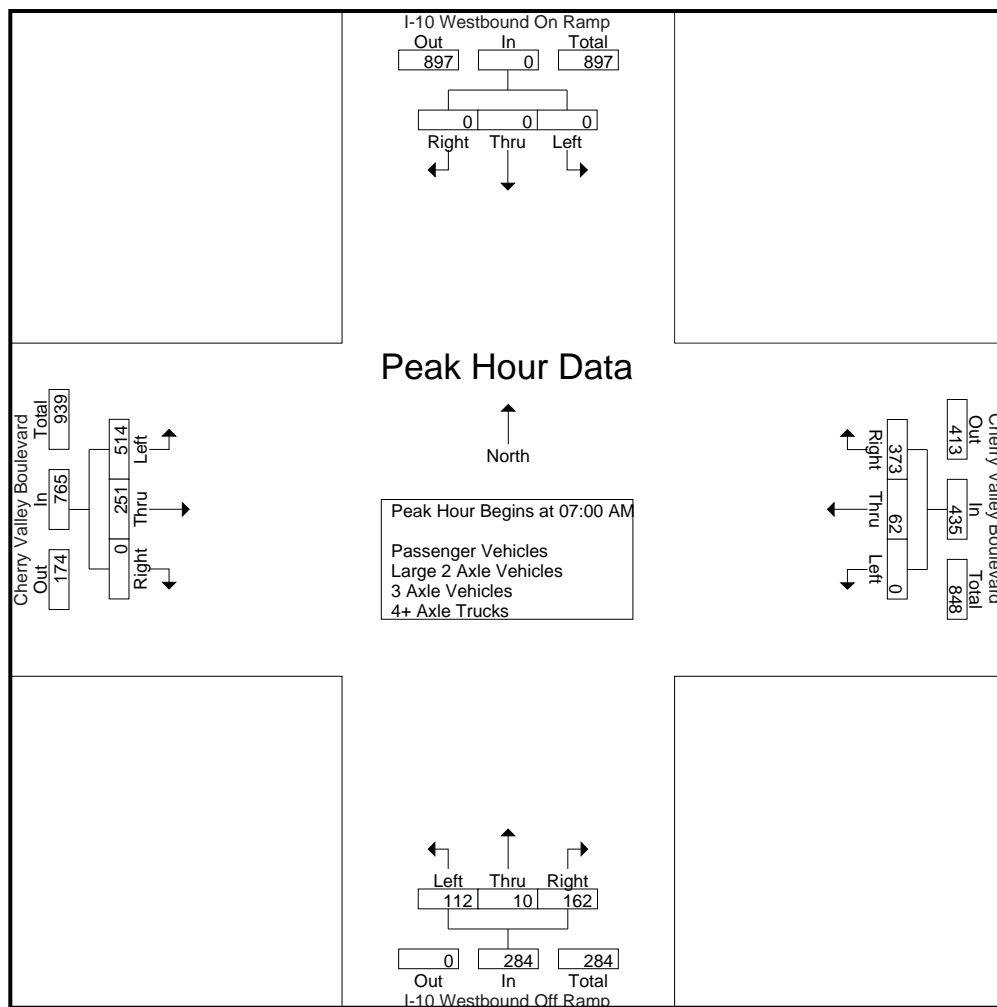
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	9	115	124	22	2	18	42	152	42	0	194	360
07:15 AM	0	0	0	0	0	13	115	128	17	4	56	77	134	60	0	194	399
07:30 AM	0	0	0	0	0	20	84	104	30	3	50	83	123	67	0	190	377
07:45 AM	0	0	0	0	0	20	59	79	43	1	38	82	105	82	0	187	348
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>62</b>	<b>373</b>	<b>435</b>	<b>112</b>	<b>10</b>	<b>162</b>	<b>284</b>	<b>514</b>	<b>251</b>	<b>0</b>	<b>765</b>	<b>1484</b>
08:00 AM	0	0	0	0	0	17	81	98	27	2	4	33	123	61	0	184	315
08:15 AM	0	0	0	0	0	41	79	120	29	2	2	33	111	41	0	152	305
08:30 AM	0	0	0	0	0	22	79	101	30	0	7	37	101	40	0	141	279
08:45 AM	0	0	0	0	0	23	55	78	31	0	2	33	110	40	0	150	261
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>103</b>	<b>294</b>	<b>397</b>	<b>117</b>	<b>4</b>	<b>15</b>	<b>136</b>	<b>445</b>	<b>182</b>	<b>0</b>	<b>627</b>	<b>1160</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>165</b>	<b>667</b>	<b>832</b>	<b>229</b>	<b>14</b>	<b>177</b>	<b>420</b>	<b>959</b>	<b>433</b>	<b>0</b>	<b>1392</b>	<b>2644</b>
Apprch %	0	0	0		0	19.8	80.2		54.5	3.3	42.1		68.9	31.1	0		
Total %	0	0	0	0	0	6.2	25.2	31.5	8.7	0.5	6.7	15.9	36.3	16.4	0	52.6	
Passenger Vehicles	0	0	0	0	0	152	640	792	209	10	168	387	941	411	0	1352	2531
% Passenger Vehicles	0	0	0	0	0	92.1	96	95.2	91.3	71.4	94.9	92.1	98.1	94.9	0	97.1	95.7
Large 2 Axle Vehicles	0	0	0	0	0	5	21	26	12	0	4	16	12	14	0	26	68
% Large 2 Axle Vehicles	0	0	0	0	0	3	3.1	3.1	5.2	0	2.3	3.8	1.3	3.2	0	1.9	2.6
3 Axle Vehicles	0	0	0	0	0	6	2	8	3	1	2	6	2	6	0	8	22
% 3 Axle Vehicles	0	0	0	0	0	3.6	0.3	1	1.3	7.1	1.1	1.4	0.2	1.4	0	0.6	0.8
4+ Axle Trucks	0	0	0	0	0	2	4	6	5	3	3	11	4	2	0	6	23
% 4+ Axle Trucks	0	0	0	0	0	1.2	0.6	0.7	2.2	21.4	1.7	2.6	0.4	0.5	0	0.4	0.9

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	9	<b>115</b>	124	22	2	18	42	<b>152</b>	42	0	<b>194</b>	360
07:15 AM	0	0	0	0	0	13	115	<b>128</b>	17	4	<b>56</b>	77	134	60	0	194	<b>399</b>
07:30 AM	0	0	0	0	0	<b>20</b>	84	104	30	3	50	<b>83</b>	123	67	0	190	377
07:45 AM	0	0	0	0	0	20	59	79	<b>43</b>	1	38	82	105	<b>82</b>	0	187	348
Total Volume	0	0	0	0	0	62	373	435	112	10	162	284	514	251	0	765	1484
% App. Total	0	0	0		0	14.3	85.7		39.4	3.5	57		67.2	32.8	0		
PHF	.000	.000	.000	.000	.000	.775	.811	.850	.651	.625	.723	.855	.845	.765	.000	.986	.930

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	9	115	124	22	2	18	42	152	42	0	194
+15 mins.	0	0	0	0	0	13	115	128	17	4	56	77	134	60	0	194
+30 mins.	0	0	0	0	0	20	84	104	30	3	50	83	123	67	0	190
+45 mins.	0	0	0	0	0	20	59	79	43	1	38	82	105	82	0	187
Total Volume	0	0	0	0	0	62	373	435	112	10	162	284	514	251	0	765
% App. Total	0	0	0	0	0	14.3	85.7		39.4	3.5	57		67.2	32.8	0	
PHF	.000	.000	.000	.000	.000	.775	.811	.850	.651	.625	.723	.855	.845	.765	.000	.986

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	8	109	117	21	0	16	37	152	40	0	192	346
07:15 AM	0	0	0	0	0	13	112	125	17	4	56	77	132	56	0	188	390
07:30 AM	0	0	0	0	0	20	77	97	29	2	47	78	122	64	0	186	361
07:45 AM	0	0	0	0	0	17	58	75	37	1	38	76	103	82	0	185	336
Total	0	0	0	0	0	58	356	414	104	7	157	268	509	242	0	751	1433
08:00 AM	0	0	0	0	0	17	80	97	26	1	2	29	120	56	0	176	302
08:15 AM	0	0	0	0	0	37	76	113	24	2	2	28	107	35	0	142	283
08:30 AM	0	0	0	0	0	22	77	99	27	0	6	33	99	39	0	138	270
08:45 AM	0	0	0	0	0	18	51	69	28	0	1	29	106	39	0	145	243
Total	0	0	0	0	0	94	284	378	105	3	11	119	432	169	0	601	1098
Grand Total	0	0	0	0	0	152	640	792	209	10	168	387	941	411	0	1352	2531
Apprch %	0	0	0		0	19.2	80.8		54	2.6	43.4		69.6	30.4	0		
Total %	0	0	0	0	0	6	25.3	31.3	8.3	0.4	6.6	15.3	37.2	16.2	0	53.4	

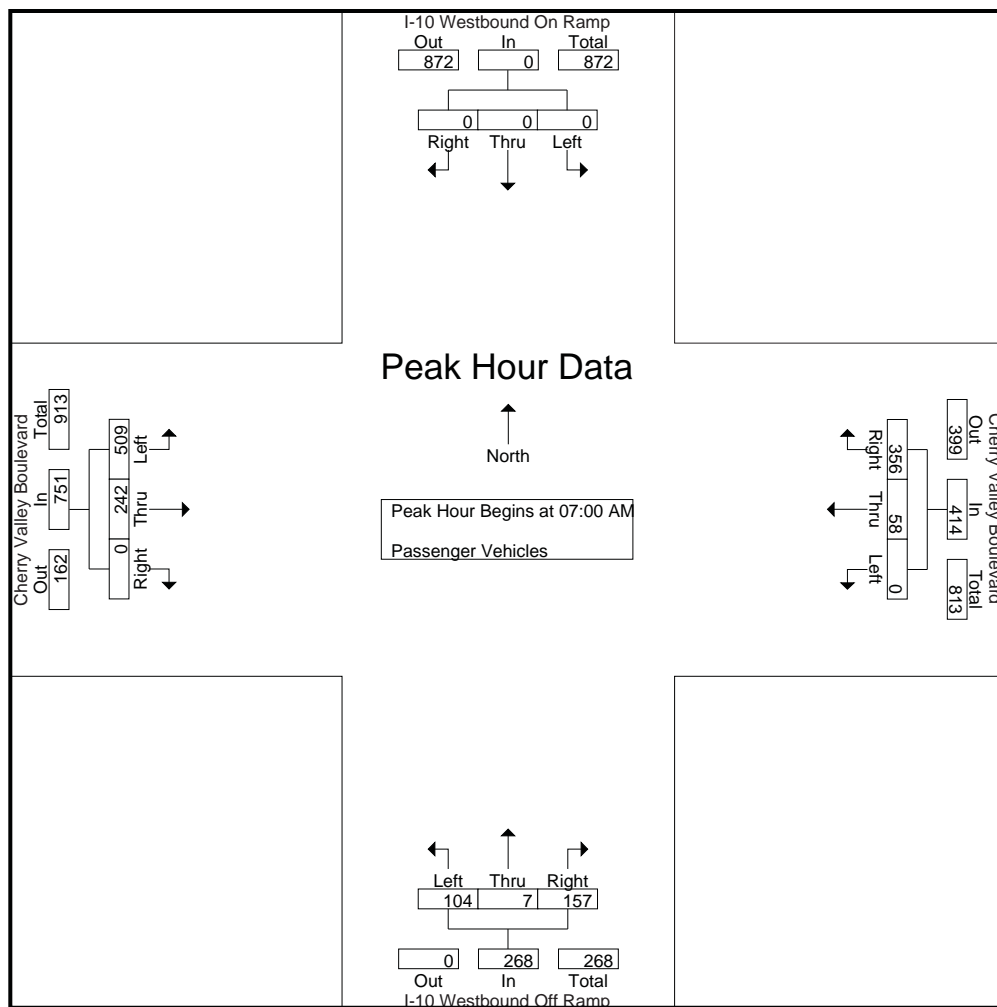
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	8	109	117	21	0	16	37	<b>152</b>	40	0	<b>192</b>	346
07:15 AM	0	0	0	0	0	13	<b>112</b>	<b>125</b>	17	<b>4</b>	<b>56</b>	<b>77</b>	132	56	0	188	<b>390</b>
07:30 AM	0	0	0	0	0	<b>20</b>	77	97	29	2	47	<b>78</b>	122	64	0	186	361
07:45 AM	0	0	0	0	0	17	58	75	<b>37</b>	1	38	76	103	<b>82</b>	0	185	336
Total Volume	0	0	0	0	0	58	356	414	104	7	157	268	509	242	0	751	1433
% App. Total	0	0	0		0	14	86		38.8	2.6	58.6		67.8	32.2	0		
PHF	.000	.000	.000	.000	.000	.725	.795	.828	.703	.438	.701	.859	.837	.738	.000	.978	.919

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	8	109	117	21	0	16	37	<b>152</b>	40	0	<b>192</b>
+15 mins.	0	0	0	0	0	13	<b>112</b>	<b>125</b>	17	4	<b>56</b>	77	132	56	0	188
+30 mins.	0	0	0	0	0	<b>20</b>	77	97	29	2	47	<b>78</b>	122	64	0	186
+45 mins.	0	0	0	0	0	17	58	75	<b>37</b>	1	38	76	103	<b>82</b>	0	185
Total Volume	0	0	0	0	0	58	356	414	104	7	157	268	509	242	0	751
% App. Total	0	0	0	0	0	14	86		38.8	2.6	58.6		67.8	32.2	0	
PHF	.000	.000	.000	.000	.000	.725	.795	.828	.703	.438	.701	.859	.837	.738	.000	.978

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	1	4	5	0	0	2	2	0	2	0	2	9
07:15 AM	0	0	0	0	0	0	2	2	0	0	0	0	2	2	0	4	6
07:30 AM	0	0	0	0	0	0	7	7	1	0	1	2	0	3	0	3	12
07:45 AM	0	0	0	0	0	1	1	2	3	0	0	3	1	0	0	1	6
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>14</b>	<b>16</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>7</b>	<b>0</b>	<b>10</b>	<b>33</b>
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	2	3	0	5	6
08:15 AM	0	0	0	0	0	1	2	3	3	0	0	3	2	4	0	6	12
08:30 AM	0	0	0	0	0	0	2	2	2	0	0	2	2	0	0	2	6
08:45 AM	0	0	0	0	0	2	2	4	3	0	1	4	3	0	0	3	11
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>10</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>0</b>	<b>16</b>	<b>35</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>21</b>	<b>26</b>	<b>12</b>	<b>0</b>	<b>4</b>	<b>16</b>	<b>12</b>	<b>14</b>	<b>0</b>	<b>26</b>	<b>68</b>
Apprch %	0	0	0		0	19.2	80.8		75	0	25		46.2	53.8	0		
Total %	0	0	0	0	0	7.4	30.9	38.2	17.6	0	5.9	23.5	17.6	20.6	0	38.2	

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	1	4	5	0	0	2	2	0	2	0	2	9
07:15 AM	0	0	0	0	0	0	2	2	0	0	0	0	2	2	0	4	6
07:30 AM	0	0	0	0	0	0	7	7	1	0	1	2	0	3	0	3	12
07:45 AM	0	0	0	0	0	1	1	2	3	0	0	3	1	0	0	1	6
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>14</b>	<b>16</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>7</b>	<b>0</b>	<b>10</b>	<b>33</b>
<b>% App. Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12.5</b>	<b>87.5</b>	<b></b>	<b>57.1</b>	<b>0</b>	<b>42.9</b>	<b></b>	<b>30</b>	<b>70</b>	<b>0</b>	<b></b>	<b></b>
<b>PHF</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.500</b>	<b>.500</b>	<b>.571</b>	<b>.333</b>	<b>.000</b>	<b>.375</b>	<b>.583</b>	<b>.375</b>	<b>.583</b>	<b>.000</b>	<b>.625</b>	<b>.688</b>

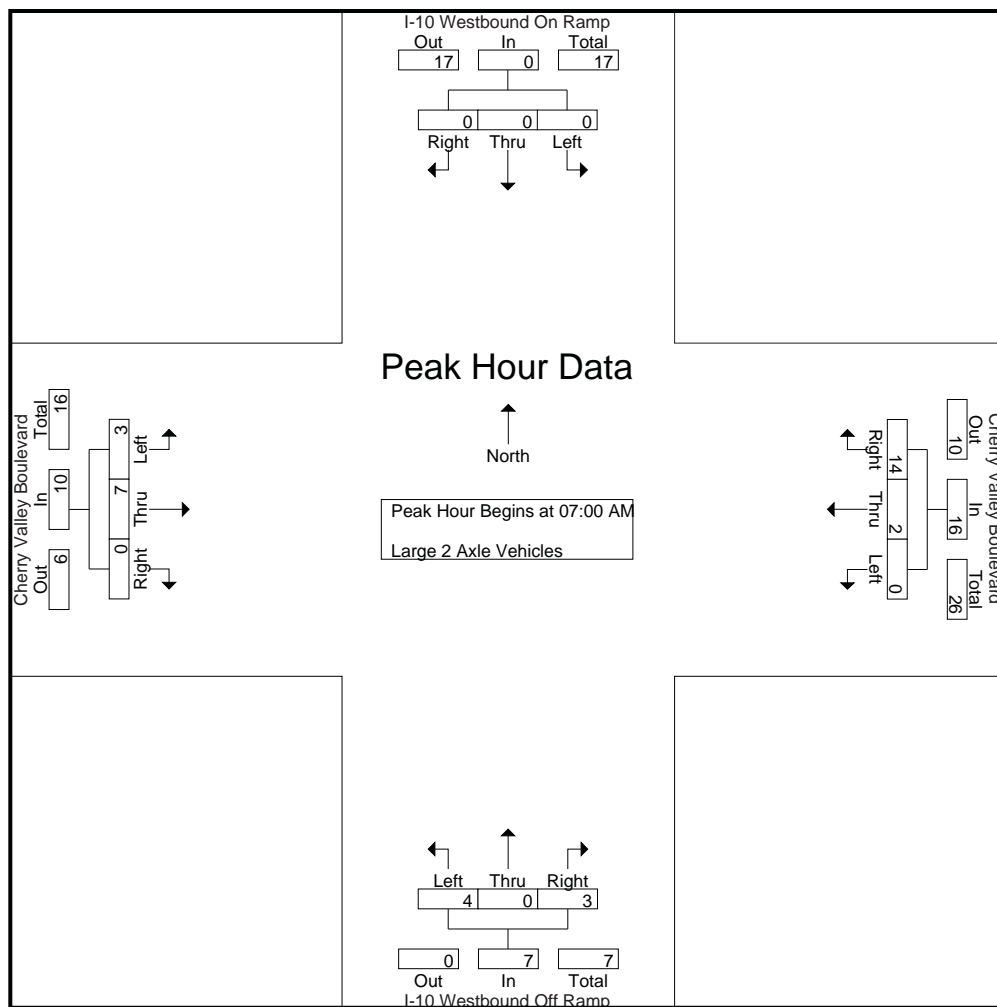
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00 AM



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	<b>1</b>	4	5	0	0	<b>2</b>	2	0	2	0	2
+15 mins.	0	0	0	0	0	0	2	2	0	0	0	0	0	<b>2</b>	2	0
+30 mins.	0	0	0	0	0	0	<b>7</b>	7	1	0	1	2	0	<b>3</b>	0	3
+45 mins.	0	0	0	0	0	1	1	2	<b>3</b>	0	0	<b>3</b>	1	0	0	1
Total Volume	0	0	0	0	0	2	14	16	4	0	3	7	3	7	0	10
% App. Total	0	0	0	0	0	12.5	87.5		57.1	0	42.9		30	70	0	
PHF	.000	.000	.000	.000	.000	.500	.500	.571	.333	.000	.375	.583	.375	.583	.000	.625

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3
07:45 AM	0	0	0	0	0	2	0	2	2	0	0	2	0	0	0	0	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>10</b>
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
08:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	1	0	0	1	5
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	1	1	2	0	0	0	0	1	1	0	2	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>12</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>22</b>
Apprch %	0	0	0		0	75	25		50	16.7	33.3		25	75	0		
Total %	0	0	0		0	27.3	9.1	36.4	13.6	4.5	9.1	27.3	9.1	27.3	0	36.4	

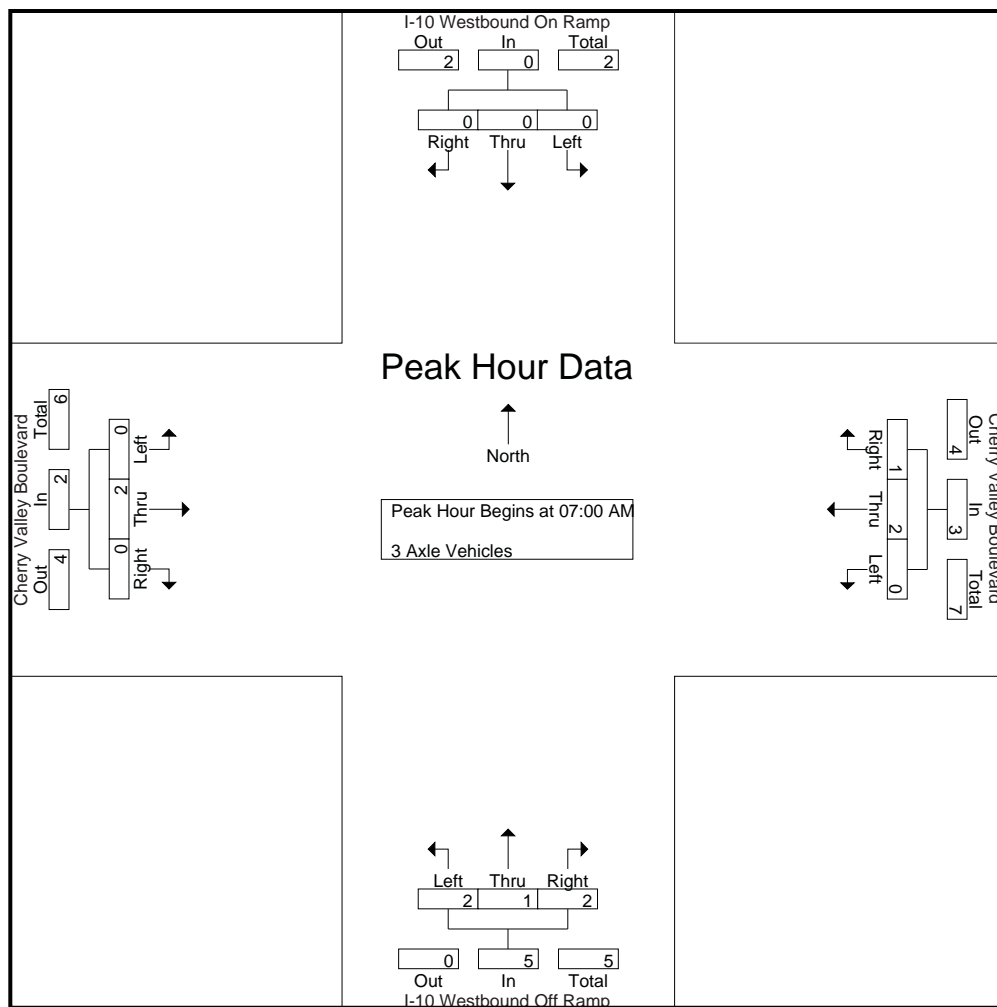
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3
07:45 AM	0	0	0	0	0	2	0	2	2	0	0	2	0	0	0	0	4
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>10</b>
% App. Total	0	0	0		0	66.7	33.3		40	20	40		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.250	.375	.250	.250	.250	.417	.000	.250	.000	.250	.625

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0
+45 mins.	0	0	0	0	0	2	0	2	2	0	0	2	0	0	0	0
Total Volume	0	0	0	0	0	2	1	3	2	1	2	5	0	2	0	2
% App. Total	0	0	0	0	0	66.7	33.3		40	20	40		0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.250	.375	.250	.250	.250	.417	.000	.250	.000	.250

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	1	2	0	3	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	2
Total	0	0	0	0	0	0	2	2	2	2	0	4	2	0	0	2	8
08:00 AM	0	0	0	0	0	0	0	0	1	1	2	4	1	0	0	1	5
08:15 AM	0	0	0	0	0	0	1	1	1	0	0	1	1	2	0	3	5
08:30 AM	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2
08:45 AM	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	2	2	4	3	1	3	7	2	2	0	4	15
Grand Total	0	0	0	0	0	2	4	6	5	3	3	11	4	2	0	6	23
Apprch %	0	0	0		0	33.3	66.7		45.5	27.3	27.3		66.7	33.3	0		
Total %	0	0	0		0	8.7	17.4	26.1	21.7	13	13	47.8	17.4	8.7	0	26.1	

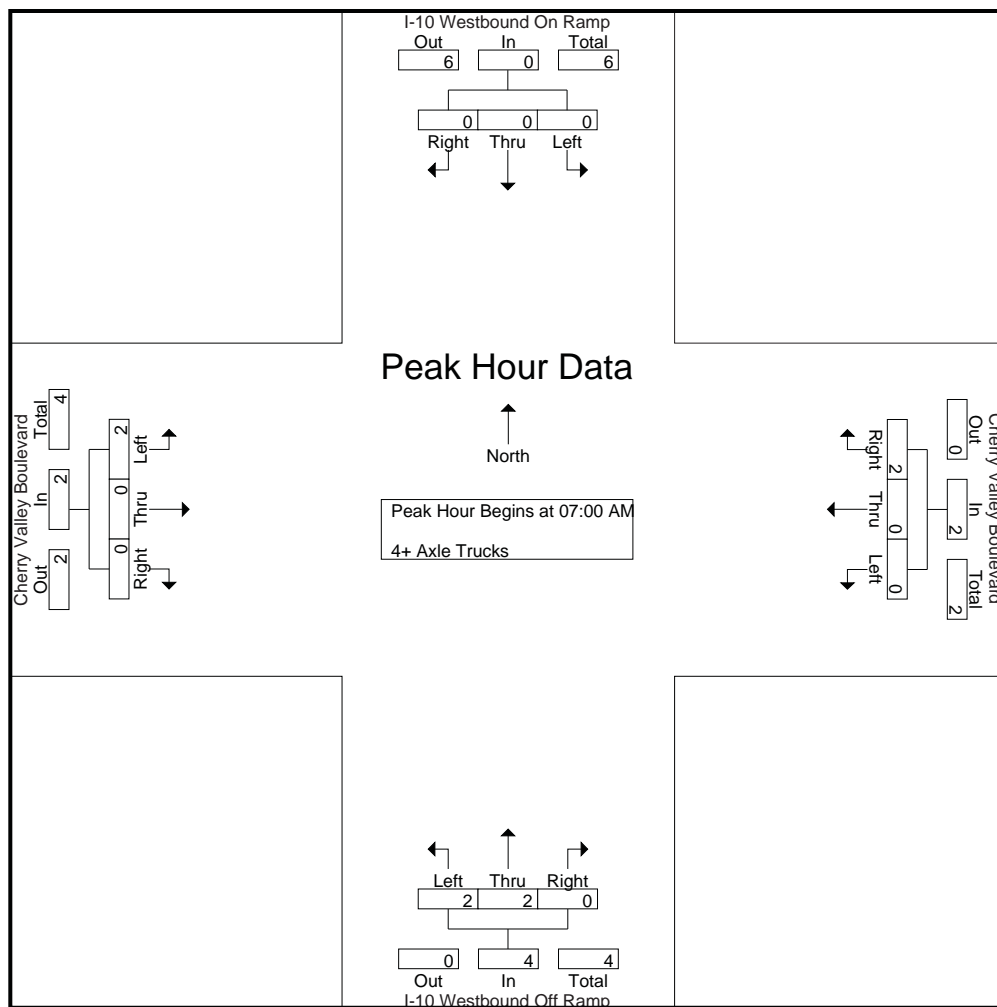
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	1	2	0	3	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	2
Total Volume	0	0	0	0	0	0	2	2	2	2	0	4	2	0	0	2	8
% App. Total	0	0	0		0	0	100		50	50	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.500	.250	.000	.333	.500	.000	.000	.500	.500

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV AM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	1	1	1	2	0	3	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1
Total Volume	0	0	0	0	0	0	2	2	2	2	0	4	2	0	0	2
% App. Total	0	0	0	0	0	0	100		50	50	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.500	.250	.000	.333	.500	.000	.000	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

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

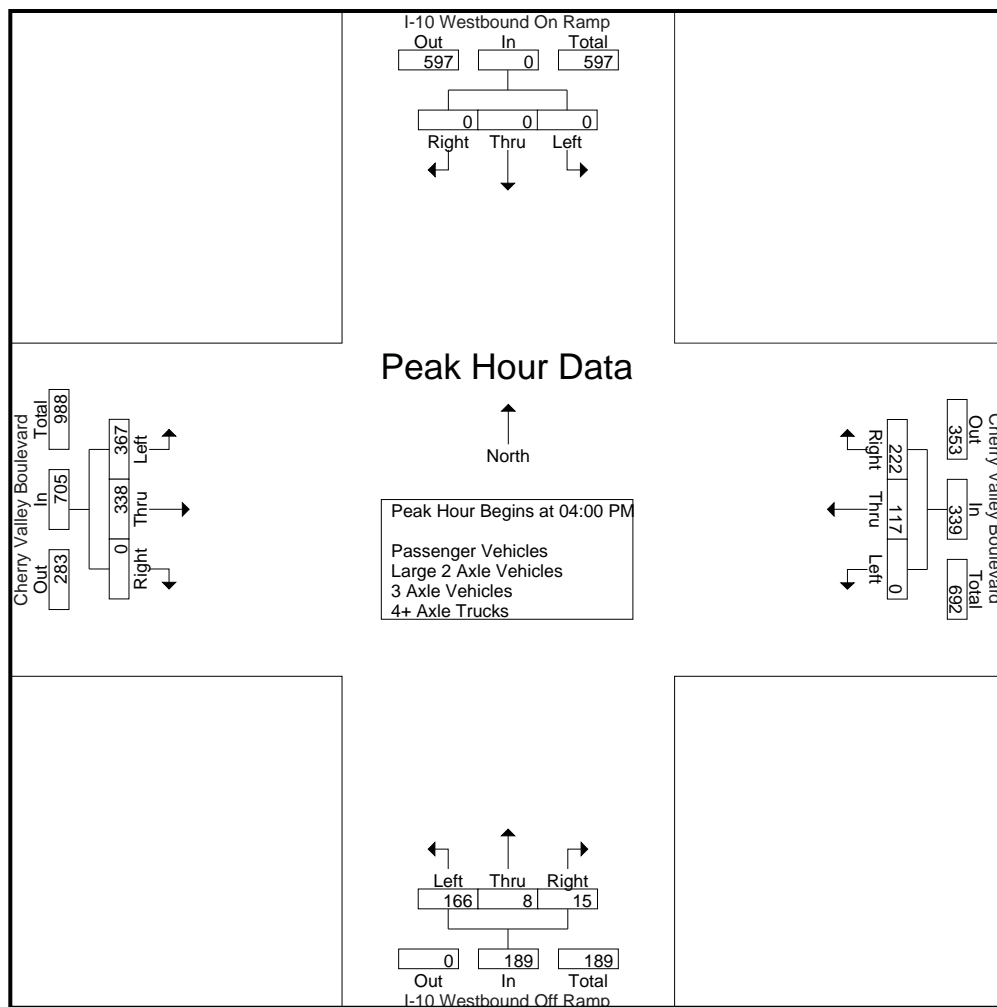
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	34	55	89	42	2	6	50	105	79	0	184	323
04:15 PM	0	0	0	0	0	30	58	88	41	0	4	45	105	70	0	175	308
04:30 PM	0	0	0	0	0	29	50	79	38	2	3	43	81	100	0	181	303
04:45 PM	0	0	0	0	0	24	59	83	45	4	2	51	76	89	0	165	299
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>117</b>	<b>222</b>	<b>339</b>	<b>166</b>	<b>8</b>	<b>15</b>	<b>189</b>	<b>367</b>	<b>338</b>	<b>0</b>	<b>705</b>	<b>1233</b>
05:00 PM	0	0	0	0	0	31	55	86	42	1	8	51	72	90	0	162	299
05:15 PM	0	0	0	0	0	27	52	79	39	0	9	48	65	81	0	146	273
05:30 PM	0	0	0	0	0	24	48	72	42	0	4	46	74	88	0	162	280
05:45 PM	0	0	0	0	0	21	42	63	45	1	5	51	93	85	0	178	292
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>103</b>	<b>197</b>	<b>300</b>	<b>168</b>	<b>2</b>	<b>26</b>	<b>196</b>	<b>304</b>	<b>344</b>	<b>0</b>	<b>648</b>	<b>1144</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>220</b>	<b>419</b>	<b>639</b>	<b>334</b>	<b>10</b>	<b>41</b>	<b>385</b>	<b>671</b>	<b>682</b>	<b>0</b>	<b>1353</b>	<b>2377</b>
Apprch %	0	0	0		0	34.4	65.6		86.8	2.6	10.6		49.6	50.4	0		
Total %	0	0	0	0	0	9.3	17.6	26.9	14.1	0.4	1.7	16.2	28.2	28.7	0	56.9	
Passenger Vehicles	0	0	0	0	0	214	407	621	334	7	39	380	657	671	0	1328	2329
% Passenger Vehicles	0	0	0	0	0	97.3	97.1	97.2	100	70	95.1	98.7	97.9	98.4	0	98.2	98
Large 2 Axle Vehicles	0	0	0	0	0	5	8	13	0	0	1	1	11	7	0	18	32
% Large 2 Axle Vehicles	0	0	0	0	0	2.3	1.9	2	0	0	2.4	0.3	1.6	1	0	1.3	1.3
3 Axle Vehicles	0	0	0	0	0	1	2	3	0	0	0	0	1	1	0	2	5
% 3 Axle Vehicles	0	0	0	0	0	0.5	0.5	0.5	0	0	0	0	0.1	0.1	0	0.1	0.2
4+ Axle Trucks	0	0	0	0	0	0	2	2	0	3	1	4	2	3	0	5	11
% 4+ Axle Trucks	0	0	0	0	0	0	0.5	0.3	0	30	2.4	1	0.3	0.4	0	0.4	0.5

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	<b>34</b>	55	<b>89</b>	42	2	<b>6</b>	50	<b>105</b>	79	0	<b>184</b>	<b>323</b>
04:15 PM	0	0	0	0	0	30	58	88	41	0	4	45	105	70	0	175	308
04:30 PM	0	0	0	0	0	29	50	79	38	2	3	43	81	<b>100</b>	0	181	303
04:45 PM	0	0	0	0	0	24	<b>59</b>	83	<b>45</b>	<b>4</b>	2	<b>51</b>	76	89	0	165	299
Total Volume	0	0	0	0	0	117	222	339	166	8	15	189	367	338	0	705	1233
% App. Total	0	0	0		0	34.5	65.5		87.8	4.2	7.9		52.1	47.9	0		
PHF	.000	.000	.000	.000	.000	.860	.941	.952	.922	.500	.625	.926	.874	.845	.000	.958	.954

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:45 PM				04:00 PM			
+0 mins.	0	0	0	0	0	<b>34</b>	55	<b>89</b>	<b>45</b>	<b>4</b>	2	<b>51</b>	<b>105</b>	79	0	<b>184</b>
+15 mins.	0	0	0	0	0	30	58	88	42	1	8	51	105	70	0	175
+30 mins.	0	0	0	0	0	29	50	79	39	0	<b>9</b>	48	81	<b>100</b>	0	181
+45 mins.	0	0	0	0	0	24	<b>59</b>	83	42	0	4	46	76	89	0	165
Total Volume	0	0	0	0	0	117	222	339	168	5	23	196	367	338	0	705
% App. Total	0	0	0	0	0	34.5	65.5		85.7	2.6	11.7		52.1	47.9	0	
PHF	.000	.000	.000	.000	.000	.860	.941	.952	.933	.313	.639	.961	.874	.845	.000	.958

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	34	52	86	42	1	6	49	100	77	0	177	312
04:15 PM	0	0	0	0	0	27	55	82	41	0	4	45	97	68	0	165	292
04:30 PM	0	0	0	0	0	26	48	74	38	1	3	42	81	98	0	179	295
04:45 PM	0	0	0	0	0	24	59	83	45	4	2	51	75	87	0	162	296
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>111</b>	<b>214</b>	<b>325</b>	<b>166</b>	<b>6</b>	<b>15</b>	<b>187</b>	<b>353</b>	<b>330</b>	<b>0</b>	<b>683</b>	<b>1195</b>
05:00 PM	0	0	0	0	0	31	52	83	42	0	8	50	72	88	0	160	293
05:15 PM	0	0	0	0	0	27	52	79	39	0	8	47	65	81	0	146	272
05:30 PM	0	0	0	0	0	24	47	71	42	0	4	46	74	87	0	161	278
05:45 PM	0	0	0	0	0	21	42	63	45	1	4	50	93	85	0	178	291
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>103</b>	<b>193</b>	<b>296</b>	<b>168</b>	<b>1</b>	<b>24</b>	<b>193</b>	<b>304</b>	<b>341</b>	<b>0</b>	<b>645</b>	<b>1134</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>214</b>	<b>407</b>	<b>621</b>	<b>334</b>	<b>7</b>	<b>39</b>	<b>380</b>	<b>657</b>	<b>671</b>	<b>0</b>	<b>1328</b>	<b>2329</b>
Apprch %	0	0	0		0	34.5	65.5		87.9	1.8	10.3		49.5	50.5	0		
Total %	0	0	0		0	9.2	17.5	26.7	14.3	0.3	1.7	16.3	28.2	28.8	0	57	

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	<b>34</b>	52	<b>86</b>	42	1	<b>6</b>	49	<b>100</b>	77	0	177	<b>312</b>
04:15 PM	0	0	0	0	0	27	55	82	41	0	4	45	97	68	0	165	292
04:30 PM	0	0	0	0	0	26	48	74	38	1	3	42	81	<b>98</b>	0	<b>179</b>	295
04:45 PM	0	0	0	0	0	24	<b>59</b>	83	<b>45</b>	<b>4</b>	2	<b>51</b>	75	87	0	162	296
Total Volume	0	0	0	0	0	111	214	325	166	6	15	187	353	330	0	683	1195
% App. Total	0	0	0		0	34.2	65.8		88.8	3.2	8		51.7	48.3	0		
PHF	.000	.000	.000	.000	.000	.816	.907	.945	.922	.375	.625	.917	.883	.842	.000	.954	.958

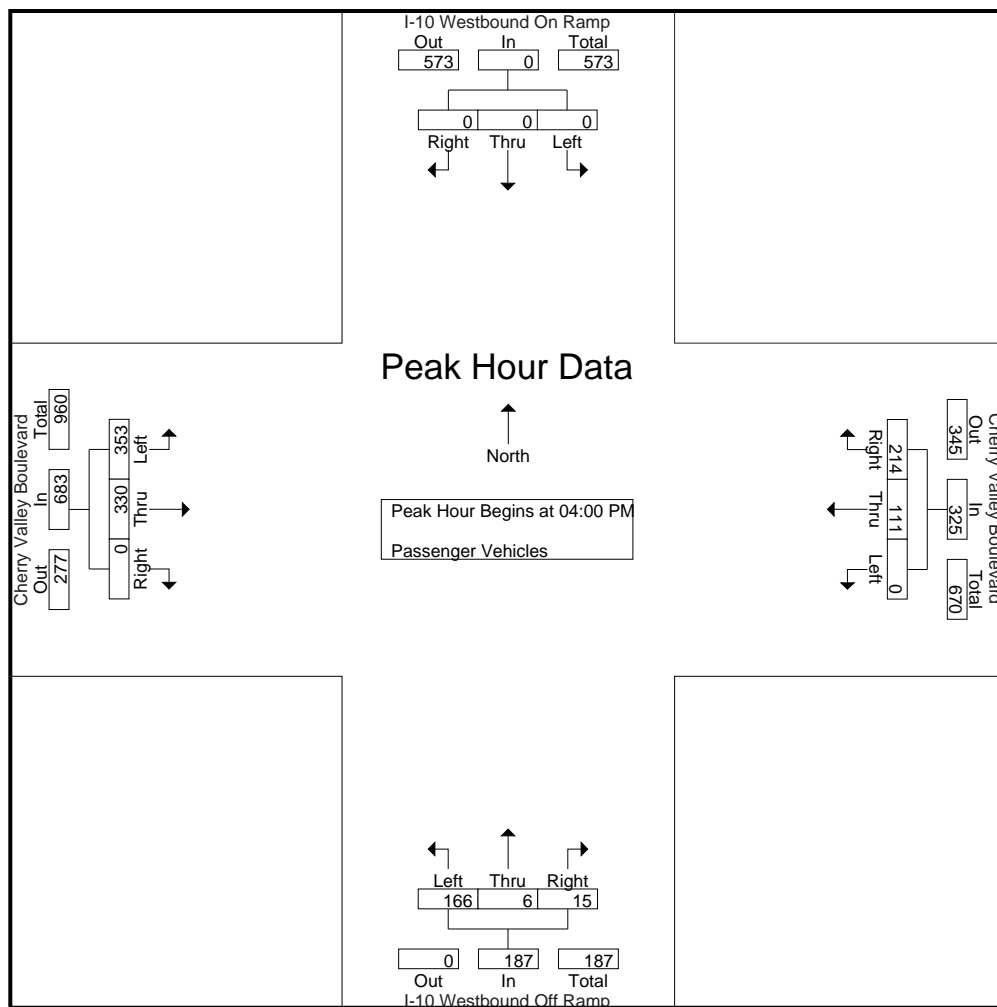
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 04:00 PM



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	<b>34</b>	52	<b>86</b>	42	1	<b>6</b>	49	<b>100</b>	77	0	177
+15 mins.	0	0	0	0	0	27	55	82	41	0	4	45	97	68	0	165
+30 mins.	0	0	0	0	0	26	48	74	38	1	3	42	81	<b>98</b>	0	<b>179</b>
+45 mins.	0	0	0	0	0	24	<b>59</b>	83	<b>45</b>	<b>4</b>	2	<b>51</b>	75	87	0	162
Total Volume	0	0	0	0	0	111	214	325	166	6	15	187	353	330	0	683
% App. Total	0	0	0	0	0	34.2	65.8		88.8	3.2	8		51.7	48.3	0	
PHF	.000	.000	.000	.000	.000	.816	.907	.945	.922	.375	.625	.917	.883	.842	.000	.954

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	2	2	0	0	0	0	4	0	0	4	6
04:15 PM	0	0	0	0	0	3	1	4	0	0	0	0	6	2	0	8	12
04:30 PM	0	0	0	0	0	2	1	3	0	0	0	0	0	2	0	2	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>4</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>5</b>	<b>0</b>	<b>16</b>	<b>25</b>
05:00 PM	0	0	0	0	0	0	3	3	0	0	0	0	0	1	0	1	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>7</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>8</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>11</b>	<b>7</b>	<b>0</b>	<b>18</b>	<b>32</b>
Apprch %	0	0	0		0	38.5	61.5		0	0	100		61.1	38.9	0		
Total %	0	0	0		0	15.6	25	40.6	0	0	3.1	3.1	34.4	21.9	0	56.2	

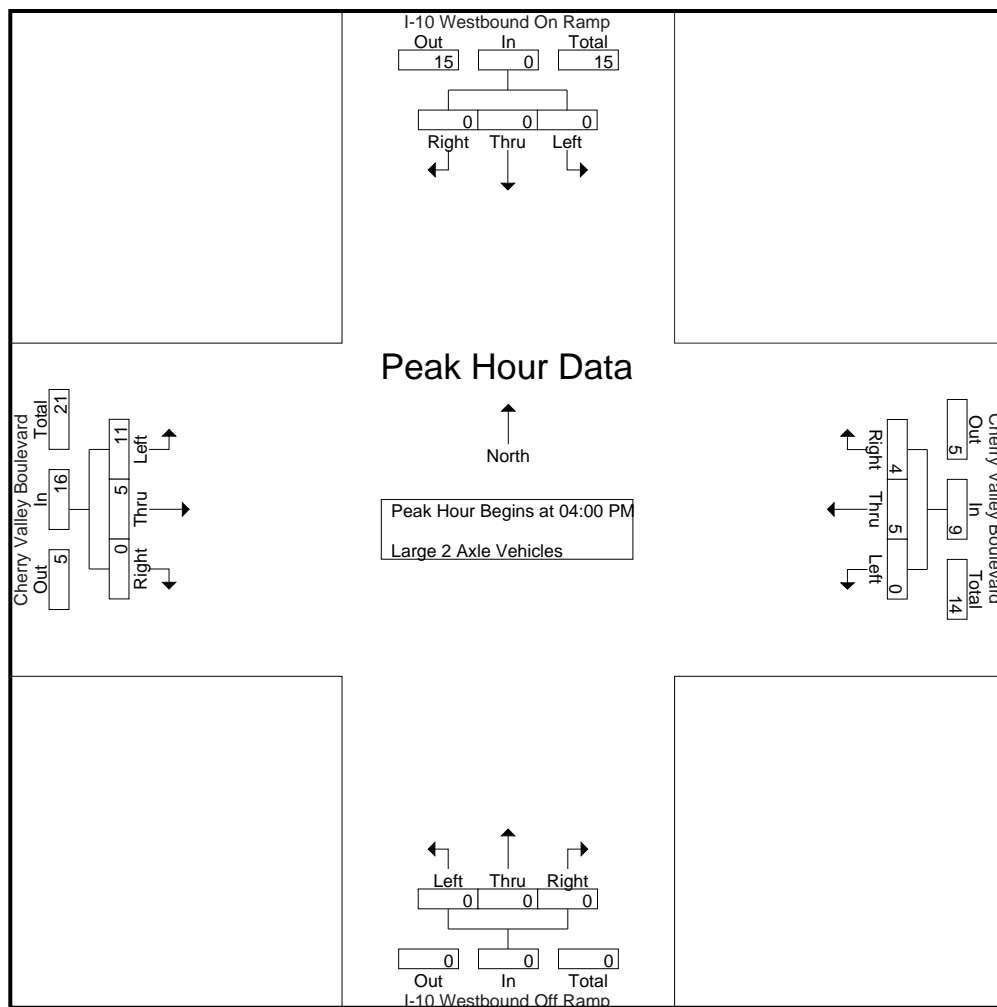
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	2	2	0	0	0	0	4	0	0	4	6
04:15 PM	0	0	0	0	0	3	1	4	0	0	0	0	6	2	0	8	12
04:30 PM	0	0	0	0	0	2	1	3	0	0	0	0	0	2	0	2	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>4</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>5</b>	<b>0</b>	<b>16</b>	<b>25</b>
% App. Total	0	0	0		0	55.6	44.4		0	0	0		68.8	31.2	0		
PHF	.000	.000	.000	.000	.000	.417	.500	.563	.000	.000	.000	.000	.458	.625	.000	.500	.521

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	2	2	0	0	0	0	4	0	0	4
+15 mins.	0	0	0	0	0	3	1	4	0	0	0	0	6	2	0	8
+30 mins.	0	0	0	0	0	2	1	3	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Total Volume	0	0	0	0	0	5	4	9	0	0	0	0	11	5	0	16
% App. Total	0	0	0	0	0	55.6	44.4		0	0	0	0	68.8	31.2	0	
PHF	.000	.000	.000	.000	.000	.417	.500	.563	.000	.000	.000	.000	.458	.625	.000	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	1	2	3	0	0	0	0	1	1	0	2	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	1	2	3	0	0	0	0	1	1	0	2	5
Apprch %	0	0	0		0	33.3	66.7		0	0	0		50	50	0		
Total %	0	0	0		0	20	40	60	0	0	0		20	20	0	40	

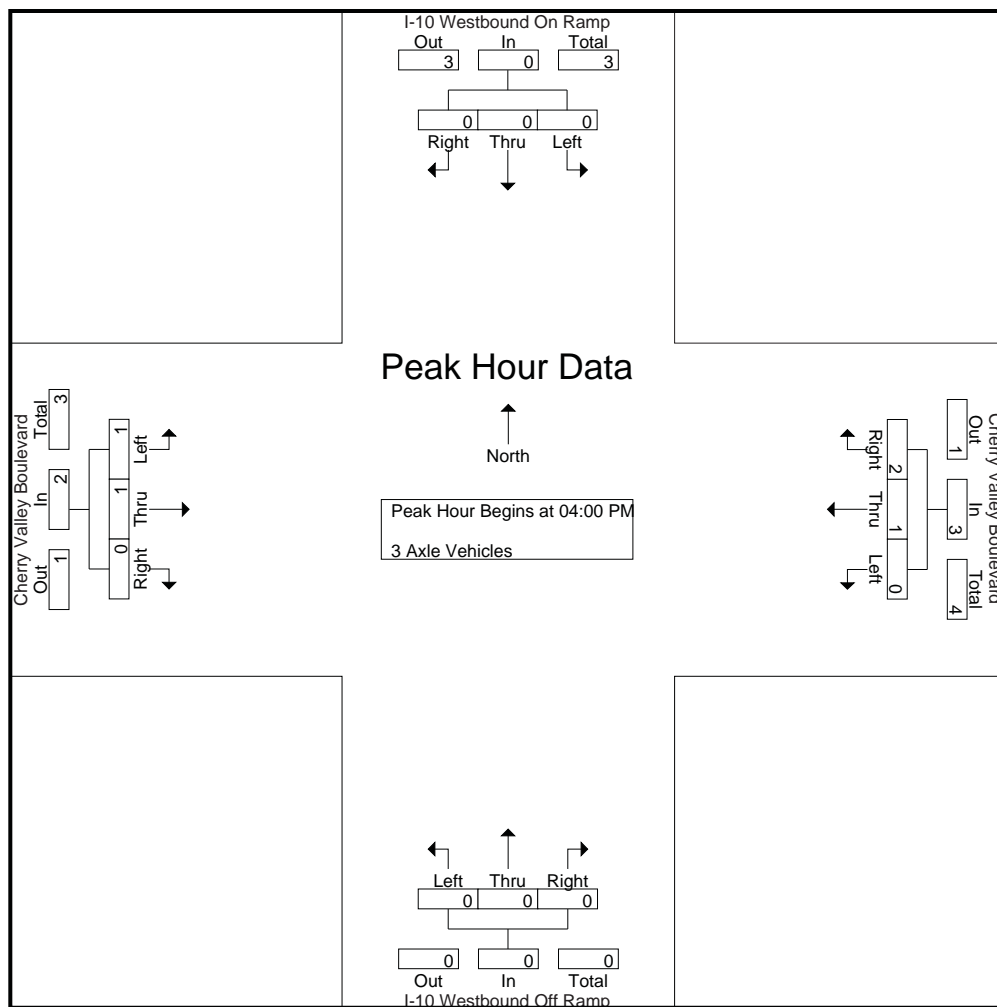
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	1	2	3	0	0	0	0	1	1	0	2	5
% App. Total	0	0	0		0	33.3	66.7		0	0	0		50	50	0		
PHF	.000	.000	.000	.000	.000	.250	.500	.750	.000	.000	.000	.000	.250	.250	.000	.500	.625

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	1	2	3	0	0	0	0	1	1	0	2
% App. Total	0	0	0	0	0	33.3	66.7		0	0	0	0	50	50	0	
PHF	.000	.000	.000	.000	.000	.250	.500	.750	.000	.000	.000	.000	.250	.250	.000	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	3	4
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	2	0	2	0	2	2	2	0	4	8
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3
Grand Total	0	0	0	0	0	0	2	2	0	3	1	4	2	3	0	5	11
Apprch %	0	0	0		0	0	100		0	75	25		40	60	0		
Total %	0	0	0		0	0	18.2	18.2	0	27.3	9.1	36.4	18.2	27.3	0	45.5	

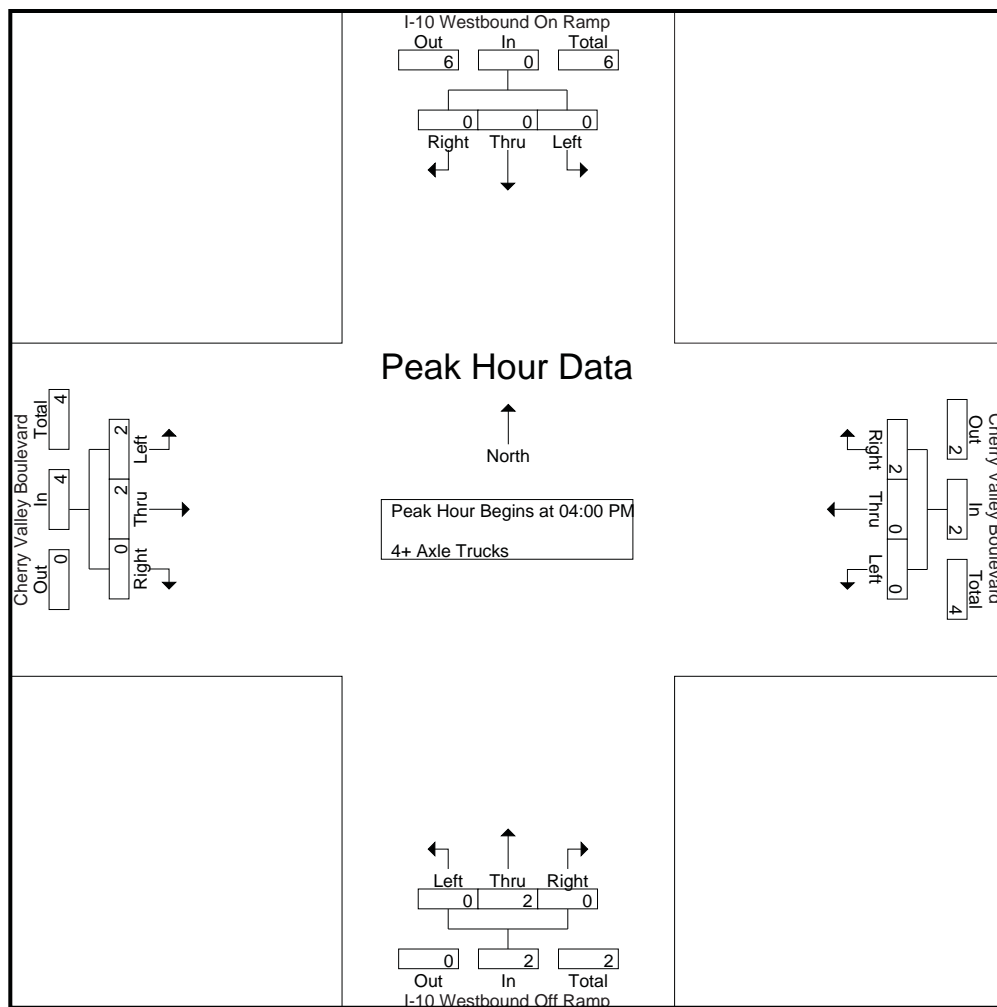
Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	3	4
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	2	0	2	2	2	0	4	8
% App. Total	0	0	0		0	0	100		0	100	0		50	50	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.000	.500	.000	.500	.500	.250	.000	.333	.500

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 06\_CAL\_10W\_CV PM  
 Site Code : 05122444  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	3
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	2	0	2	2	2	0	4
% App. Total	0	0	0	0	0	0	100		0	100	0		50	50	0	
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.000	.500	.000	.500	.500	.250	.000	.333

Location: Calimesa  
 N/S: I-10 WB Ramps  
 E/W: Cherry Valley Boulevard



Date: 5/19/2022  
 Day: Thursday

### PEDESTRIANS

	North Leg I-10 WB Ramps	East Leg Cherry Valley Boulevard	South Leg I-10 WB Ramps	West Leg Cherry Valley Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-10 WB Ramps	East Leg Cherry Valley Boulevard	South Leg I-10 WB Ramps	West Leg Cherry Valley Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 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
TOTAL VOLUMES:	0	0	0	0	0



Location: Calimesa  
 N/S: I-10 WB Ramps  
 E/W: Cherry Valley Boulevard



Date: 5/19/2022  
 Day: Thursday

### BICYCLES

	Southbound I-10 WB Ramps			Westbound Cherry Valley Boulevard			Northbound I-10 WB Ramps			Eastbound Cherry Valley Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-10 WB Ramps			Westbound Cherry Valley Boulevard			Northbound I-10 WB Ramps			Eastbound Cherry Valley Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	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
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 10\_CAL\_Cali\_Cherry AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

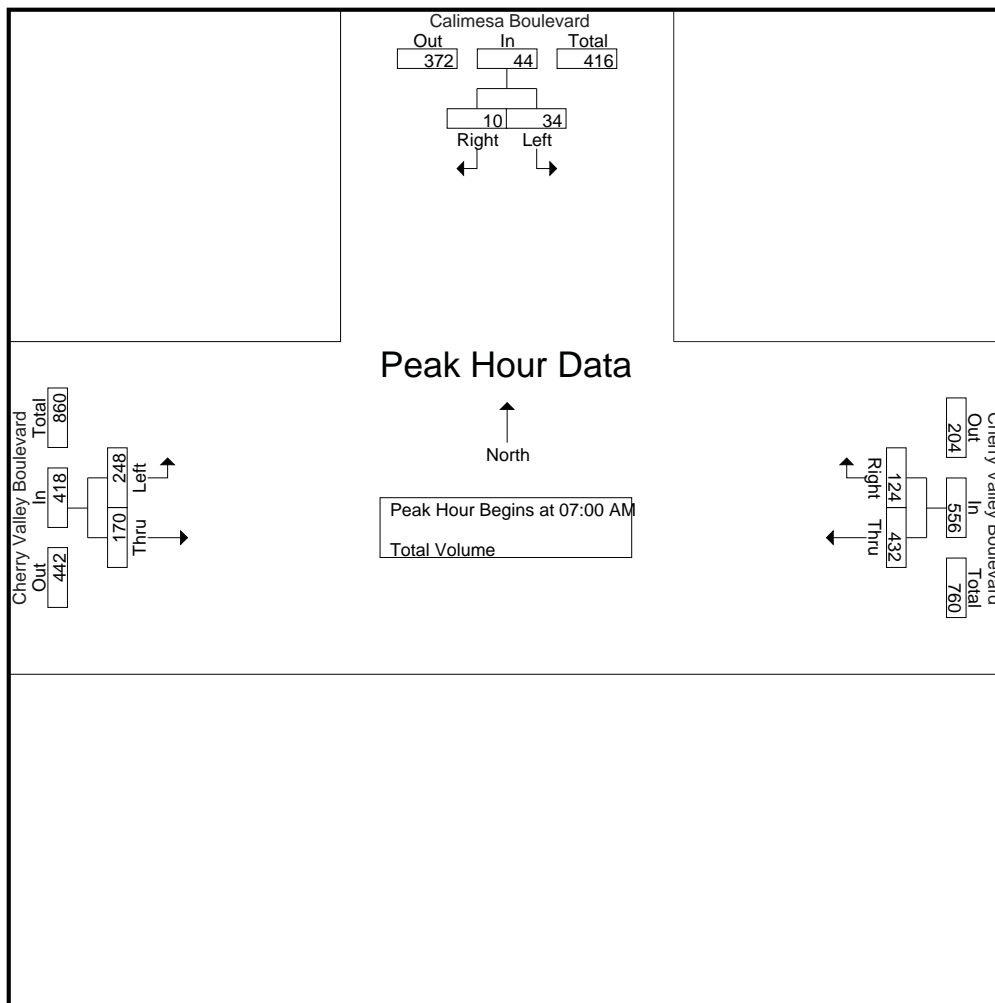
Start Time	Calimesa Boulevard Southbound			Cherry Valley Boulevard Westbound			Cherry Valley Boulevard Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	4	2	6	125	23	148	25	37	62	216
07:15 AM	6	1	7	130	43	173	81	35	116	296
07:30 AM	12	3	15	103	29	132	84	39	123	270
07:45 AM	12	4	16	74	29	103	58	59	117	236
Total	34	10	44	432	124	556	248	170	418	1018
08:00 AM	9	3	12	100	18	118	12	58	70	200
08:15 AM	6	5	11	114	8	122	5	40	45	178
08:30 AM	5	5	10	93	9	102	3	49	52	164
08:45 AM	9	6	15	80	6	86	9	33	42	143
Total	29	19	48	387	41	428	29	180	209	685
Grand Total	63	29	92	819	165	984	277	350	627	1703
Apprch %	68.5	31.5		83.2	16.8		44.2	55.8		
Total %	3.7	1.7	5.4	48.1	9.7	57.8	16.3	20.6	36.8	

Start Time	Calimesa Boulevard Southbound			Cherry Valley Boulevard Westbound			Cherry Valley Boulevard Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	4	2	6	125	23	148	25	37	62	216
07:15 AM	6	1	7	<b>130</b>	<b>43</b>	<b>173</b>	81	35	116	<b>296</b>
07:30 AM	<b>12</b>	3	15	103	29	132	<b>84</b>	39	<b>123</b>	270
07:45 AM	12	<b>4</b>	<b>16</b>	74	29	103	58	<b>59</b>	117	236
Total Volume	34	10	44	432	124	556	248	170	418	1018
% App. Total	77.3	22.7		77.7	22.3		59.3	40.7		
PHF	.708	.625	.688	.831	.721	.803	.738	.720	.850	.860

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 10\_CAL\_Cali\_Cherry AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:30 AM			07:00 AM			07:15 AM		
+0 mins.	<b>12</b>	3	15	125	23	148	81	35	116
+15 mins.	12	4	<b>16</b>	<b>130</b>	<b>43</b>	<b>173</b>	<b>84</b>	39	<b>123</b>
+30 mins.	9	3	12	103	29	132	58	<b>59</b>	117
+45 mins.	6	<b>5</b>	11	74	29	103	12	58	70
Total Volume	39	15	54	432	124	556	235	191	426
% App. Total	72.2	27.8		77.7	22.3		55.2	44.8	
PHF	.813	.750	.844	.831	.721	.803	.699	.809	.866

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 10\_CAL\_Cali\_Cherry PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

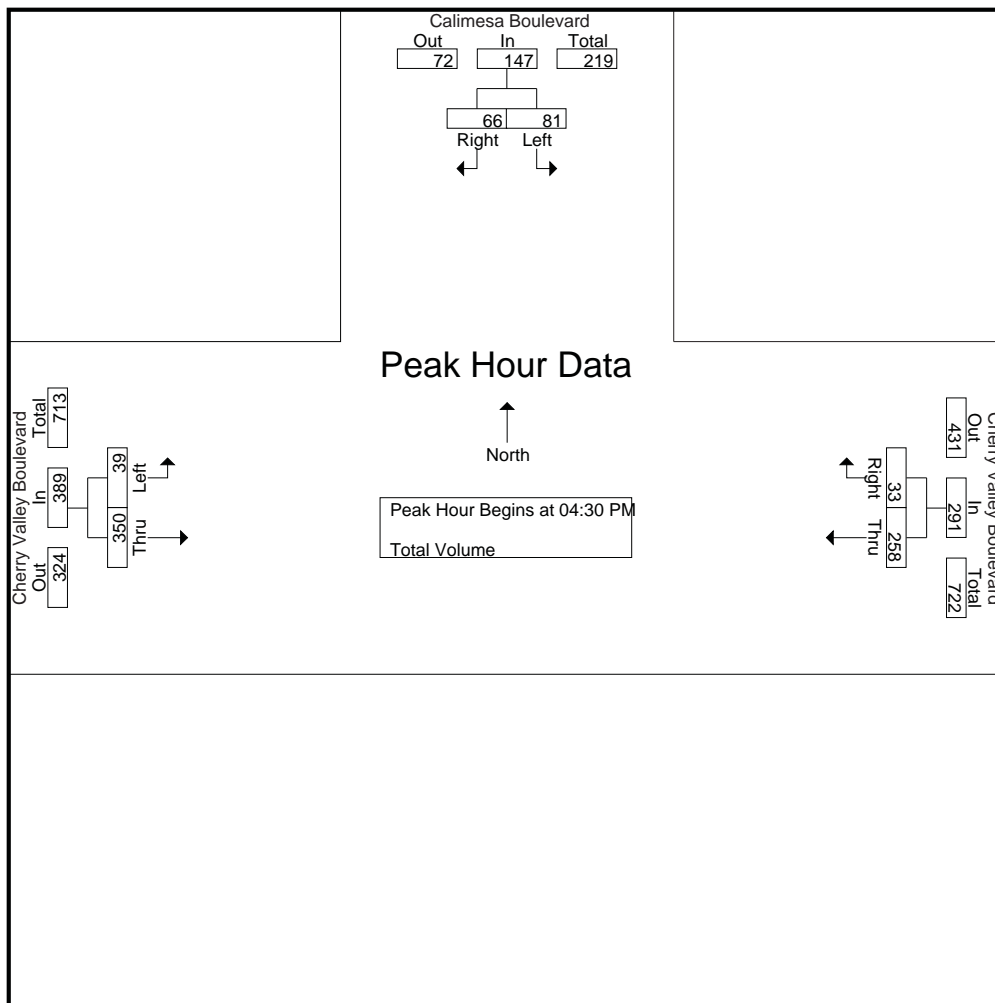
Start Time	Calimesa Boulevard Southbound			Cherry Valley Boulevard Westbound			Cherry Valley Boulevard Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	18	15	33	76	15	91	5	75	80	204
04:15 PM	15	12	27	68	19	87	9	61	70	184
04:30 PM	20	14	34	68	10	78	7	106	113	225
04:45 PM	15	13	28	69	6	75	7	81	88	191
Total	68	54	122	281	50	331	28	323	351	804
05:00 PM	26	20	46	65	9	74	11	87	98	218
05:15 PM	20	19	39	56	8	64	14	76	90	193
05:30 PM	22	16	38	56	9	65	8	90	98	201
05:45 PM	20	11	31	50	7	57	5	91	96	184
Total	88	66	154	227	33	260	38	344	382	796
Grand Total	156	120	276	508	83	591	66	667	733	1600
Apprch %	56.5	43.5		86	14		9	91		
Total %	9.8	7.5	17.2	31.8	5.2	36.9	4.1	41.7	45.8	

Start Time	Calimesa Boulevard Southbound			Cherry Valley Boulevard Westbound			Cherry Valley Boulevard Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	20	14	34	68	<b>10</b>	<b>78</b>	7	<b>106</b>	<b>113</b>	<b>225</b>
04:45 PM	15	13	28	<b>69</b>	6	75	7	81	88	191
05:00 PM	<b>26</b>	<b>20</b>	<b>46</b>	65	9	74	11	87	98	218
05:15 PM	20	19	39	56	8	64	<b>14</b>	76	90	193
Total Volume	81	66	147	258	33	291	39	350	389	827
% App. Total	55.1	44.9		88.7	11.3		10	90		
PHF	.779	.825	.799	.935	.825	.933	.696	.825	.861	.919

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 10\_CAL\_Cali\_Cherry PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			04:00 PM			04:30 PM		
+0 mins.	<b>26</b>	<b>20</b>	<b>46</b>	<b>76</b>	15	<b>91</b>	<b>7</b>	<b>106</b>	<b>113</b>
+15 mins.	20	19	39	68	<b>19</b>	87	7	81	88
+30 mins.	22	16	38	68	10	78	11	87	98
+45 mins.	20	11	31	69	6	75	<b>14</b>	76	90
Total Volume	88	66	154	281	50	331	39	350	389
% App. Total	57.1	42.9		84.9	15.1		10	90	
PHF	.846	.825	.837	.924	.658	.909	.696	.825	.861

City of Calimesa  
 N/S: I-10 WB Off Ramp/Calimesa Boulevard  
 E/W: Calimesa Boulevard  
 Weather: Clear

File Name : 11\_CAL\_10W\_Cali AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

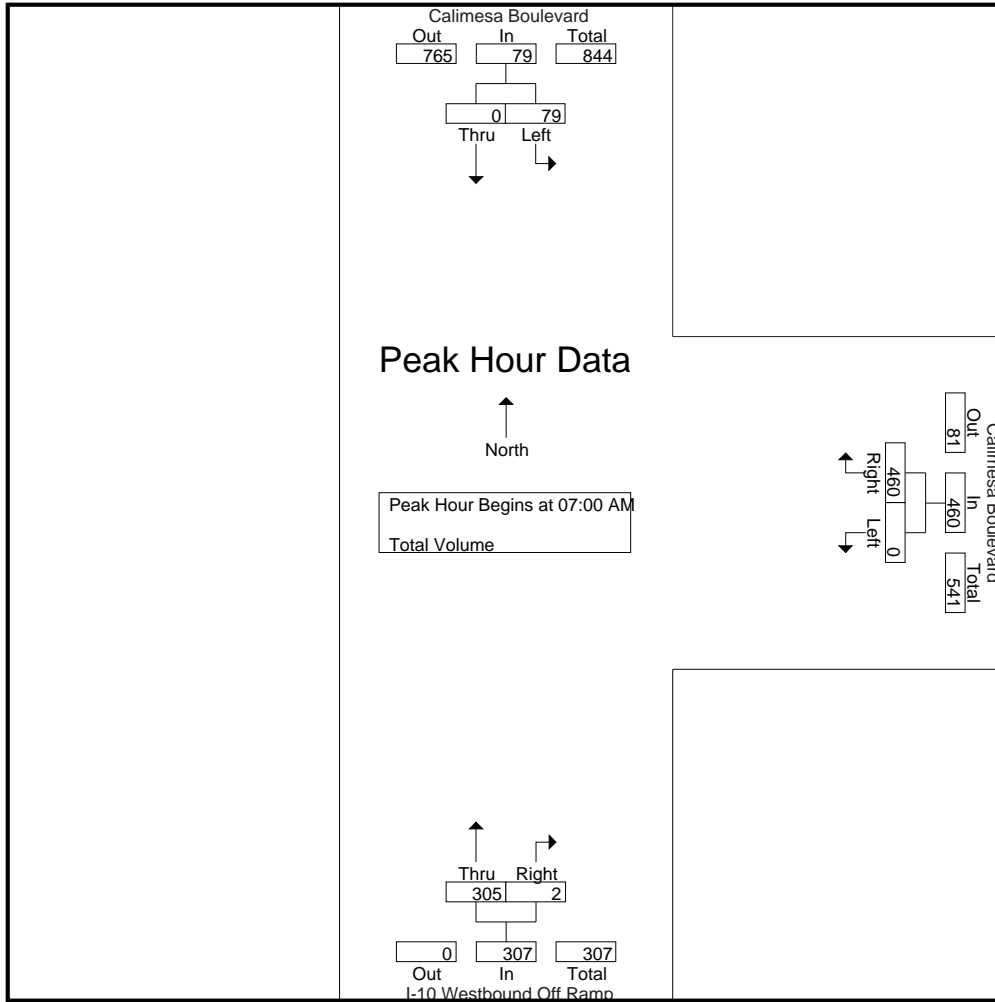
Groups Printed- Total Volume

Start Time	Calimesa Boulevard Southbound			Calimesa Boulevard Westbound			I-10 Westbound Off Ramp Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	8	0	8	0	81	81	92	1	93	182
07:15 AM	24	0	24	0	136	136	75	0	75	235
07:30 AM	24	0	24	0	140	140	71	0	71	235
07:45 AM	23	0	23	0	103	103	67	1	68	194
Total	79	0	79	0	460	460	305	2	307	846
08:00 AM	24	0	24	0	65	65	85	0	85	174
08:15 AM	32	0	32	0	52	52	76	0	76	160
08:30 AM	25	0	25	0	51	51	74	0	74	150
08:45 AM	33	0	33	0	41	41	84	0	84	158
Total	114	0	114	0	209	209	319	0	319	642
Grand Total	193	0	193	0	669	669	624	2	626	1488
Apprch %	100	0		0	100		99.7	0.3		
Total %	13	0	13	0	45	45	41.9	0.1	42.1	

Start Time	Calimesa Boulevard Southbound			Calimesa Boulevard Westbound			I-10 Westbound Off Ramp Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	8	0	8	0	81	81	<b>92</b>	<b>1</b>	<b>93</b>	182
07:15 AM	<b>24</b>	0	<b>24</b>	0	136	136	75	0	75	<b>235</b>
07:30 AM	24	0	24	0	<b>140</b>	<b>140</b>	71	0	71	235
07:45 AM	23	0	23	0	103	103	67	1	68	194
Total Volume	79	0	79	0	460	460	305	2	307	846
% App. Total	100	0		0	100		99.3	0.7		
PHF	.823	.000	.823	.000	.821	.821	.829	.500	.825	.900

City of Calimesa  
 N/S: I-10 WB Off Ramp/Calimesa Boulevard  
 E/W: Calimesa Boulevard  
 Weather: Clear

File Name : 11\_CAL\_10W\_Cali AM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	08:00 AM			07:00 AM			08:00 AM		
+0 mins.	24	0	24	0	81	81	<b>85</b>	0	<b>85</b>
+15 mins.	32	0	32	0	136	136	76	0	76
+30 mins.	25	0	25	0	<b>140</b>	<b>140</b>	74	0	74
+45 mins.	<b>33</b>	0	<b>33</b>	0	103	103	84	0	84
Total Volume	114	0	114	0	460	460	319	0	319
% App. Total	100	0		0	100		100	0	
PHF	.864	.000	.864	.000	.821	.821	.938	.000	.938

City of Calimesa  
 N/S: I-10 WB Off Ramp/Calimesa Boulevard  
 E/W: Calimesa Boulevard  
 Weather: Clear

File Name : 11\_CAL\_10W\_Cali PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Total Volume

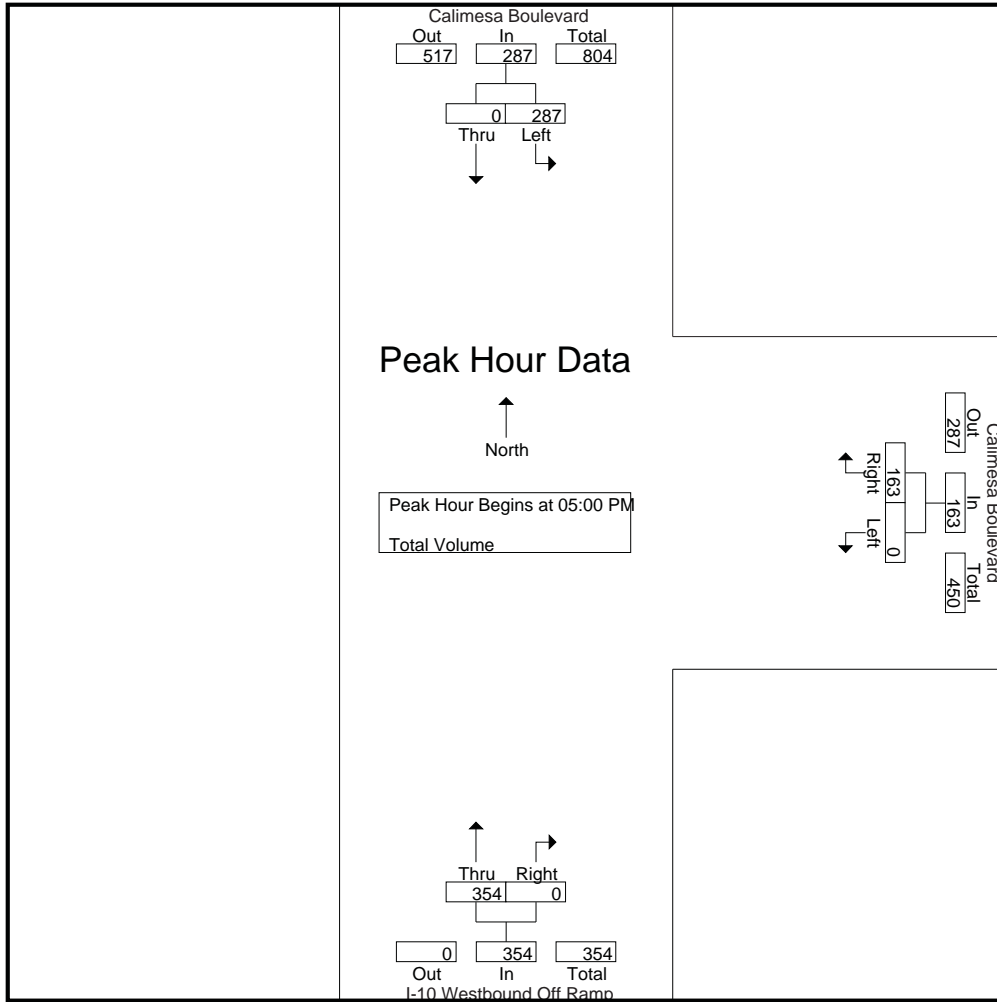
Start Time	Calimesa Boulevard Southbound			Calimesa Boulevard Westbound			I-10 Westbound Off Ramp Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	54	0	54	0	47	47	77	0	77	178
04:15 PM	63	0	63	0	40	40	100	0	100	203
04:30 PM	63	0	63	0	50	50	89	0	89	202
04:45 PM	65	0	65	0	34	34	93	0	93	192
Total	245	0	245	0	171	171	359	0	359	775
05:00 PM	70	0	70	0	36	36	70	0	70	176
05:15 PM	80	0	80	0	43	43	93	0	93	216
05:30 PM	73	0	73	0	41	41	101	0	101	215
05:45 PM	64	0	64	0	43	43	90	0	90	197
Total	287	0	287	0	163	163	354	0	354	804
Grand Total	532	0	532	0	334	334	713	0	713	1579
Apprch %	100	0		0	100		100	0		
Total %	33.7	0	33.7	0	21.2	21.2	45.2	0	45.2	

Start Time	Calimesa Boulevard Southbound			Calimesa Boulevard Westbound			I-10 Westbound Off Ramp Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	70	0	70	0	36	36	70	0	70	176
05:15 PM	<b>80</b>	0	<b>80</b>	0	<b>43</b>	<b>43</b>	93	0	93	<b>216</b>
05:30 PM	73	0	73	0	41	41	<b>101</b>	0	<b>101</b>	215
05:45 PM	64	0	64	0	43	43	90	0	90	197
Total Volume	287	0	287	0	163	163	354	0	354	804
% App. Total	100	0		0	100		100	0		
PHF	.897	.000	.897	.000	.948	.948	.876	.000	.876	.931



City of Calimesa  
 N/S: I-10 WB Off Ramp/Calimesa Boulevard  
 E/W: Calimesa Boulevard  
 Weather: Clear

File Name : 11\_CAL\_10W\_Cali PM  
 Site Code : 05122490  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:45 PM			04:00 PM			04:00 PM		
+0 mins.	65	0	65	0	47	47	77	0	77
+15 mins.	70	0	70	0	40	40	<b>100</b>	0	<b>100</b>
+30 mins.	<b>80</b>	0	<b>80</b>	0	<b>50</b>	<b>50</b>	89	0	89
+45 mins.	73	0	73	0	34	34	93	0	93
Total Volume	288	0	288	0	171	171	359	0	359
% App. Total	100	0		0	100		100	0	
PHF	.900	.000	.900	.000	.855	.855	.898	.000	.898

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

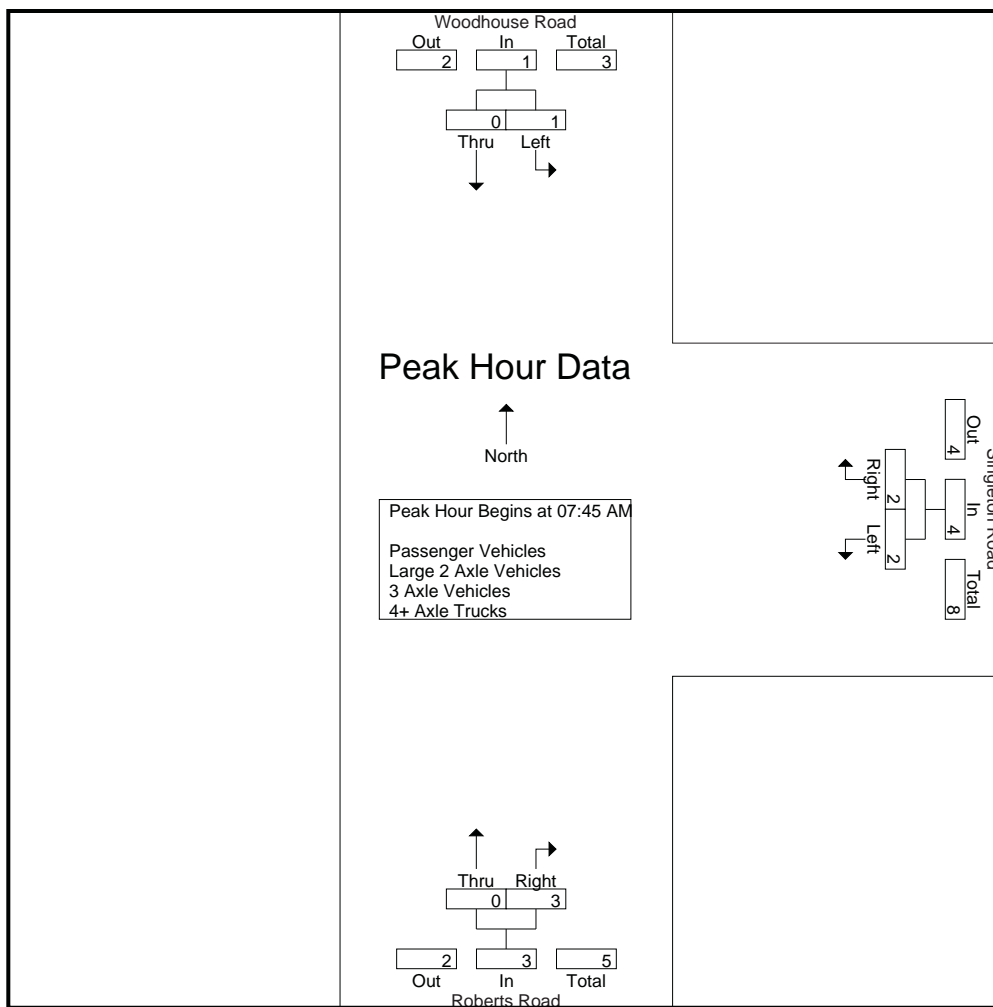
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	1	0	1	1	2
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	1	2	3	0	1	1	4
08:00 AM	0	0	0	1	0	1	0	1	1	2
08:15 AM	0	0	0	0	1	1	0	0	0	1
08:30 AM	1	0	1	1	0	1	0	2	2	4
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	2	0	2	2	1	3	0	3	3	8
Grand Total	2	0	2	3	3	6	0	4	4	12
Apprch %	100	0		50	50		0	100		
Total %	16.7	0	16.7	25	25	50	0	33.3	33.3	
Passenger Vehicles	1	0	1	2	2	4	0	3	3	8
% Passenger Vehicles	50	0	50	66.7	66.7	66.7	0	75	75	66.7
Large 2 Axle Vehicles	1	0	1	1	1	2	0	1	1	4
% Large 2 Axle Vehicles	50	0	50	33.3	33.3	33.3	0	25	25	33.3
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	1	1	0	0	0	1
08:00 AM	0	0	0	1	0	1	0	1	1	2
08:15 AM	0	0	0	0	1	1	0	0	0	1
08:30 AM	1	0	1	1	0	1	0	2	2	4
Total Volume	1	0	1	2	2	4	0	3	3	8
% App. Total	100	0		50	50		0	100		
PHF	.250	.000	.250	.500	.500	1.00	.000	.375	.375	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	08:00 AM			07:30 AM			07:45 AM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	0	1	1	0	1	1
+30 mins.	1	0	1	1	0	1	0	0	0
+45 mins.	1	0	1	0	1	1	0	2	2
Total Volume	2	0	2	2	2	4	0	3	3
% App. Total	100	0		50	50		0	100	
PHF	.500	.000	.500	.500	.500	1.000	.000	.375	.375

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

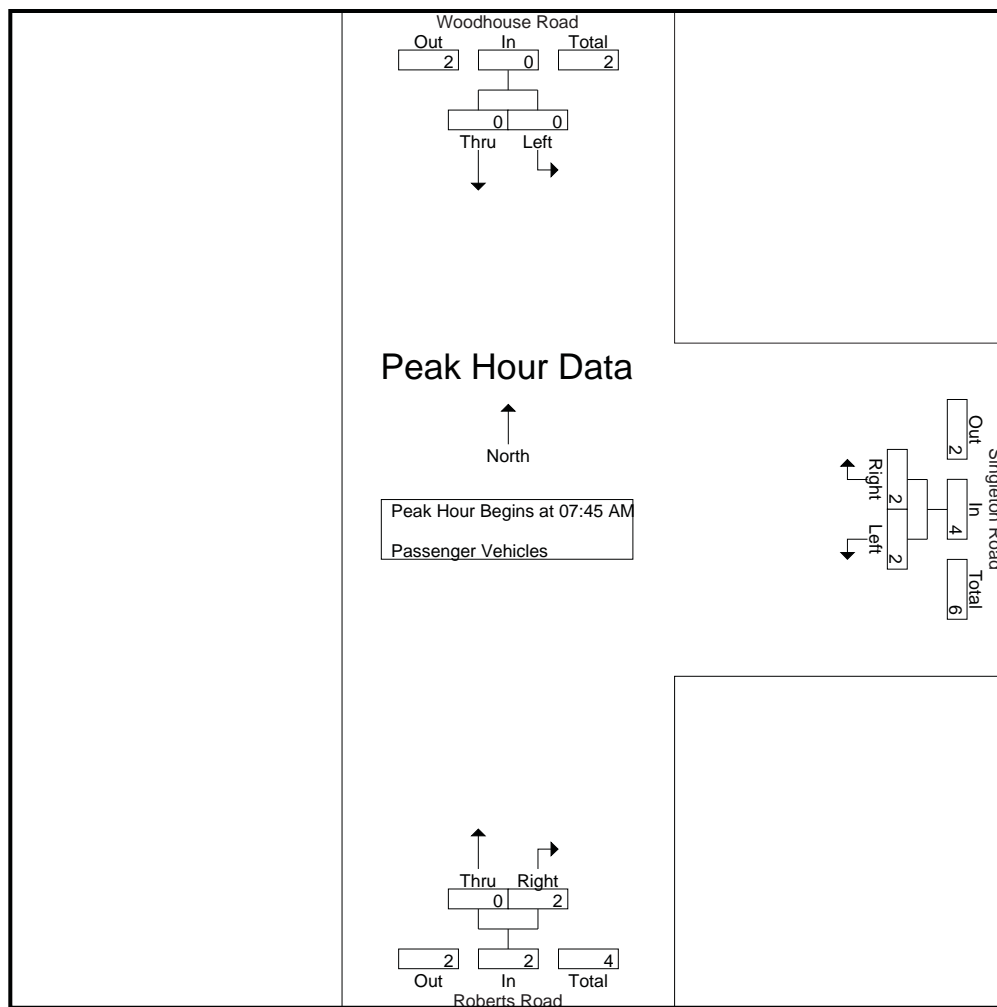
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	1	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	0	1	1	0	1	1	2
08:00 AM	0	0	0	1	0	1	0	0	0	1
08:15 AM	0	0	0	0	1	1	0	0	0	1
08:30 AM	0	0	0	1	0	1	0	2	2	3
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	1	0	1	2	1	3	0	2	2	6
Grand Total	1	0	1	2	2	4	0	3	3	8
Apprch %	100	0		50	50		0	100		
Total %	12.5	0	12.5	25	25	50	0	37.5	37.5	

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	1	1	0	0	0	1
08:00 AM	0	0	0	1	0	1	0	0	0	1
08:15 AM	0	0	0	0	1	1	0	0	0	1
08:30 AM	0	0	0	1	0	1	0	2	2	3
Total Volume	0	0	0	2	2	4	0	2	2	6
% App. Total	0	0		50	50		0	100		
PHF	.000	.000	.000	.500	.500	1.00	.000	.250	.250	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	07:45 AM			07:45 AM			07:45 AM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	1	0	1	0	2	2
Total Volume	0	0	0	2	2	4	0	2	2
% App. Total	0	0	0	50	50	1.000	0	100	.250
PHF	.000	.000	.000	.500	.500	1.000	.000	.250	.250

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

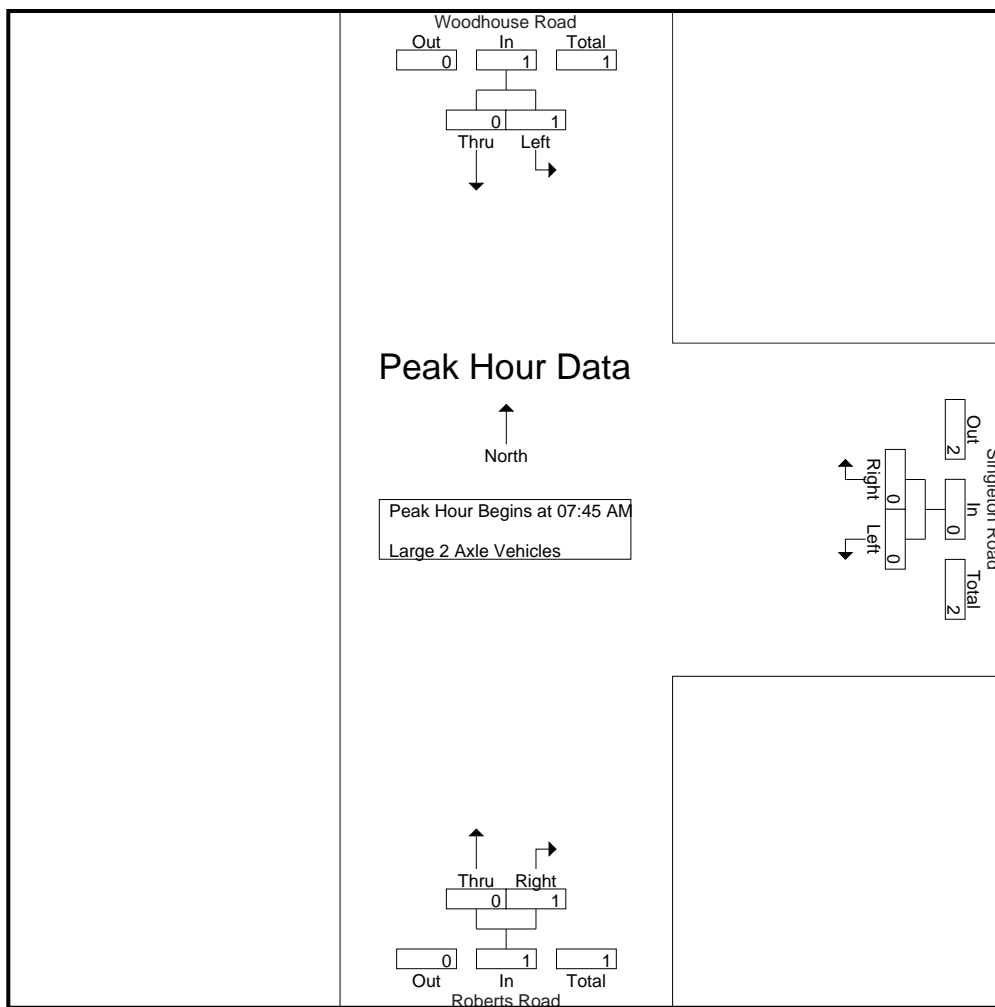
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	1	2	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	1	0	1	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	1	1	2
Grand Total	1	0	1	1	1	2	0	1	1	4
Apprch %	100	0		50	50		0	100		
Total %	25	0	25	25	25	50	0	25	25	

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	1	0	1	0	0	0	0	0	0	1
Total Volume	1	0	1	0	0	0	0	1	1	2
% App. Total	100	0		0	0		0	100		
PHF	.250	.000	.250	.000	.000	.000	.000	.250	.250	.500

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

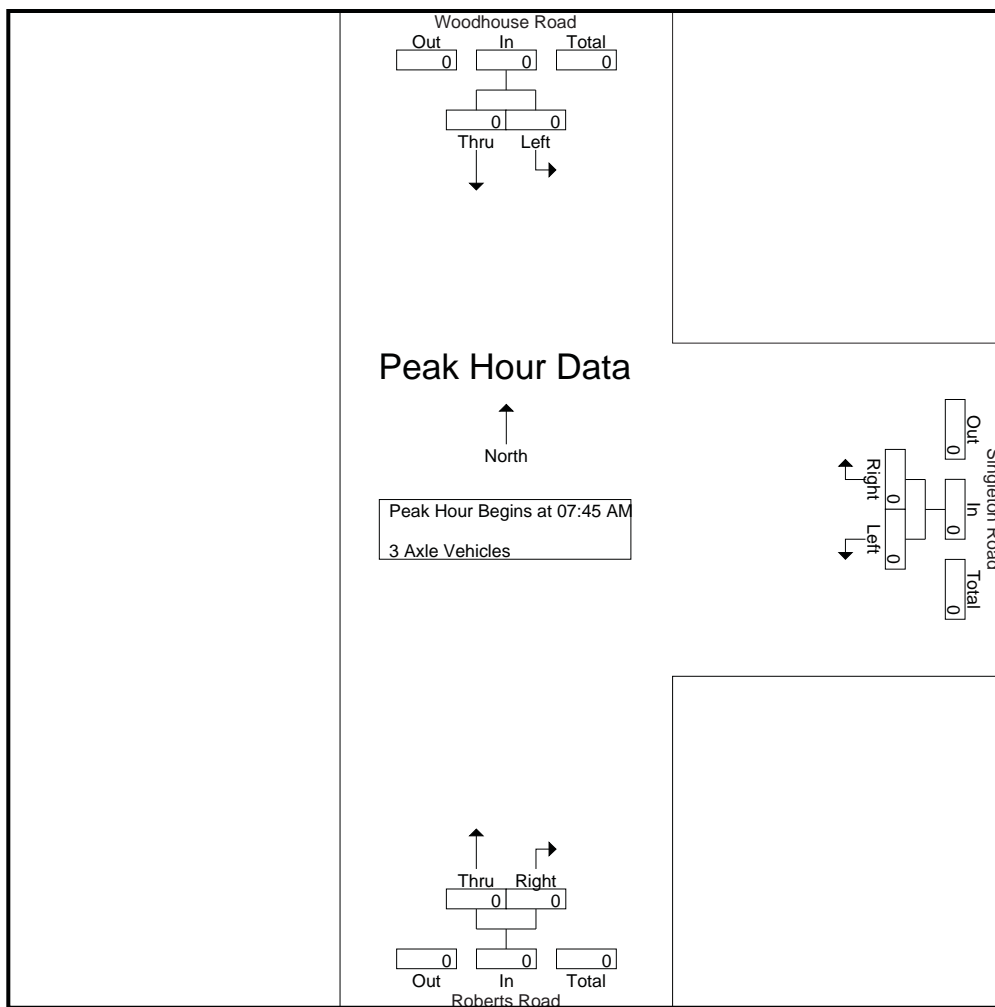
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

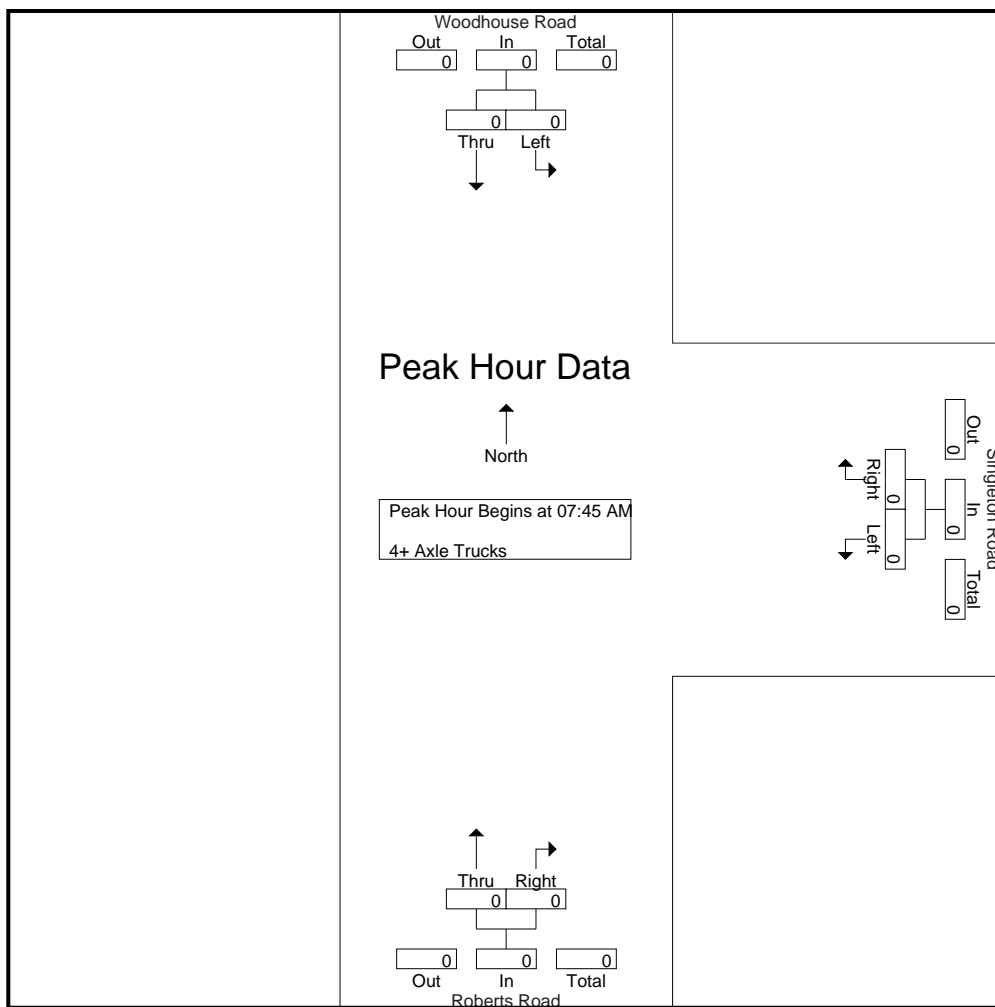
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin AM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

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

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

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

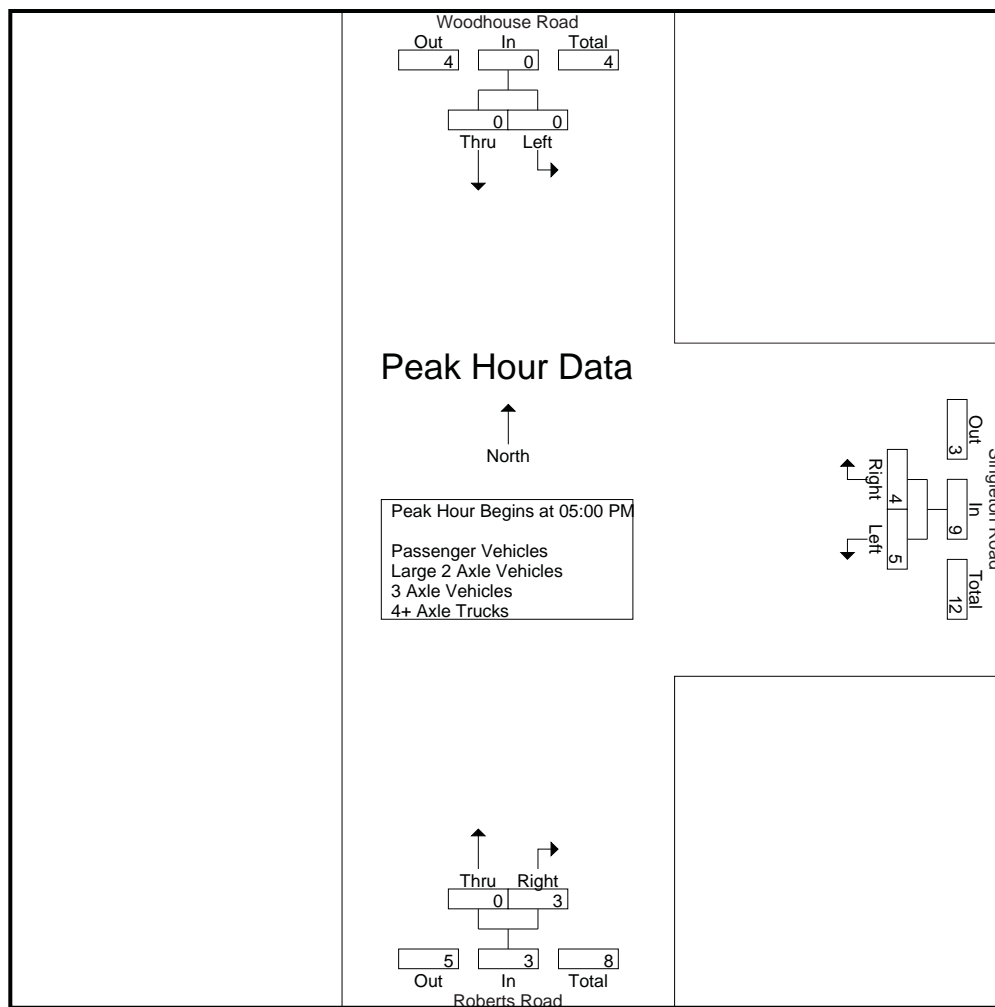
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	3	1	4	0	1	1	5
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	2	2	0	1	1	3
04:45 PM	1	0	1	0	0	0	0	0	0	1
Total	1	0	1	4	3	7	0	2	2	10
05:00 PM	0	0	0	1	1	2	0	1	1	3
05:15 PM	0	0	0	1	0	1	0	0	0	1
05:30 PM	0	0	0	1	2	3	0	0	0	3
05:45 PM	0	0	0	2	1	3	0	2	2	5
Total	0	0	0	5	4	9	0	3	3	12
Grand Total	1	0	1	9	7	16	0	5	5	22
Apprch %	100	0		56.2	43.8		0	100		
Total %	4.5	0	4.5	40.9	31.8	72.7	0	22.7	22.7	
Passenger Vehicles	1	0	1	9	7	16	0	5	5	22
% Passenger Vehicles	100	0	100	100	100	100	0	100	100	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	1	1	2	0	1	1	3
05:15 PM	0	0	0	1	0	1	0	0	0	1
05:30 PM	0	0	0	1	2	3	0	0	0	3
05:45 PM	0	0	0	2	1	3	0	2	2	5
Total Volume	0	0	0	5	4	9	0	3	3	12
% App. Total	0	0		55.6	44.4		0	100		
PHF	.000	.000	.000	.625	.500	.750	.000	.375	.375	.600

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	04:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	1	1	2	0	1	1
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	1	2	3	0	0	0
+45 mins.	1	0	1	2	1	3	0	2	2
Total Volume	1	0	1	5	4	9	0	3	3
% App. Total	100	0		55.6	44.4		0	100	
PHF	.250	.000	.250	.625	.500	.750	.000	.375	.375

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Passenger Vehicles

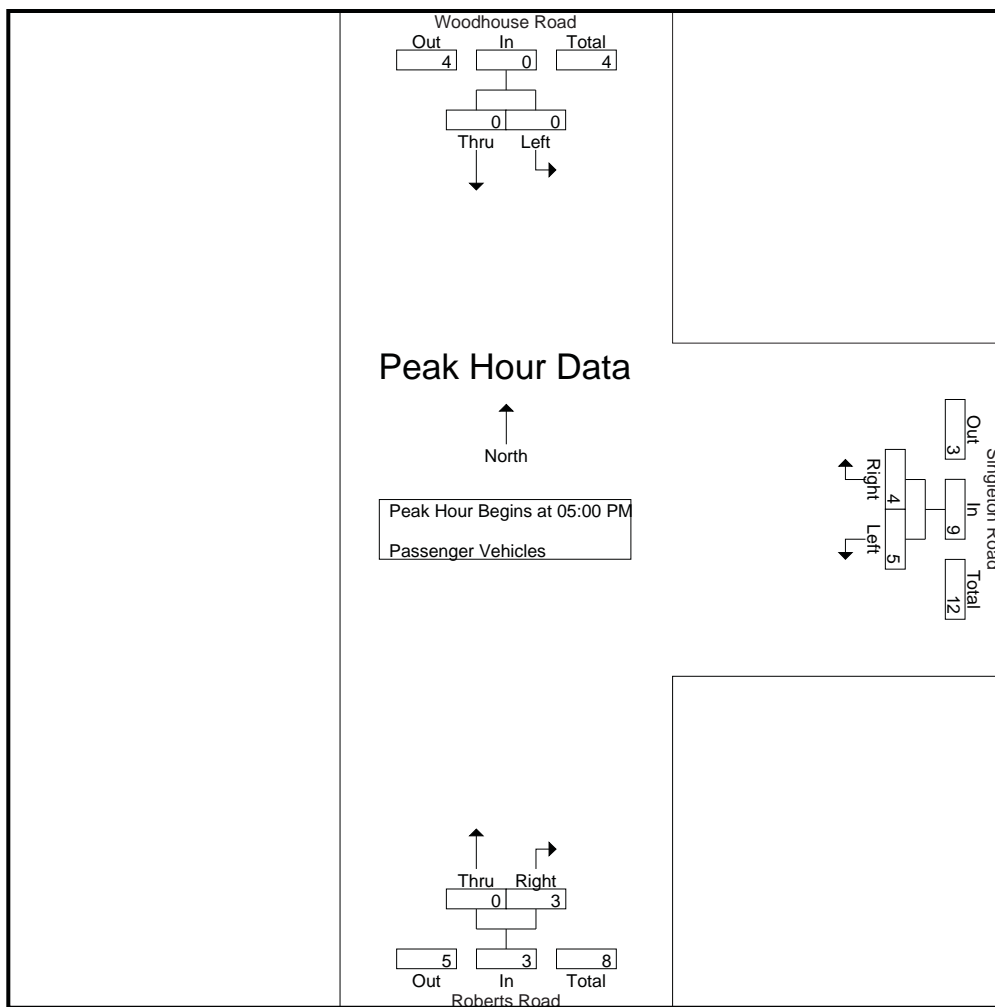
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	3	1	4	0	1	1	5
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	2	2	0	1	1	3
04:45 PM	1	0	1	0	0	0	0	0	0	1
Total	1	0	1	4	3	7	0	2	2	10
05:00 PM	0	0	0	1	1	2	0	1	1	3
05:15 PM	0	0	0	1	0	1	0	0	0	1
05:30 PM	0	0	0	1	2	3	0	0	0	3
05:45 PM	0	0	0	2	1	3	0	2	2	5
Total	0	0	0	5	4	9	0	3	3	12
Grand Total	1	0	1	9	7	16	0	5	5	22
Apprch %	100	0		56.2	43.8		0	100		
Total %	4.5	0	4.5	40.9	31.8	72.7	0	22.7	22.7	

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	1	1	2	0	1	1	3
05:15 PM	0	0	0	1	0	1	0	0	0	1
05:30 PM	0	0	0	1	2	3	0	0	0	3
05:45 PM	0	0	0	2	1	3	0	2	2	5
Total Volume	0	0	0	5	4	9	0	3	3	12
% App. Total	0	0		55.6	44.4		0	100		
PHF	.000	.000	.000	.625	.500	.750	.000	.375	.375	.600

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	1	1	2	0	1	1
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	1	2	3	0	0	0
+45 mins.	0	0	0	2	1	3	0	2	2
Total Volume	0	0	0	5	4	9	0	3	3
% App. Total	0	0	0	55.6	44.4		0	100	
PHF	.000	.000	.000	.625	.500	.750	.000	.375	.375

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

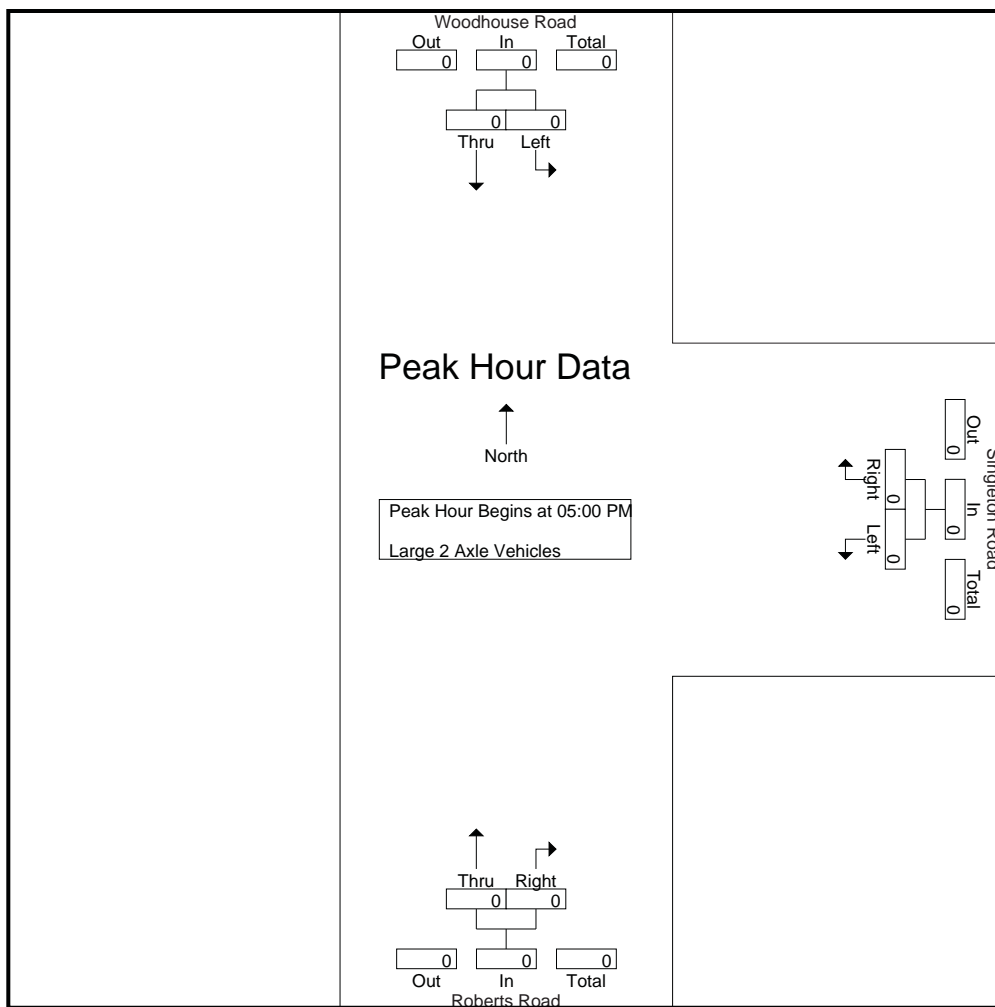
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 3 Axle Vehicles

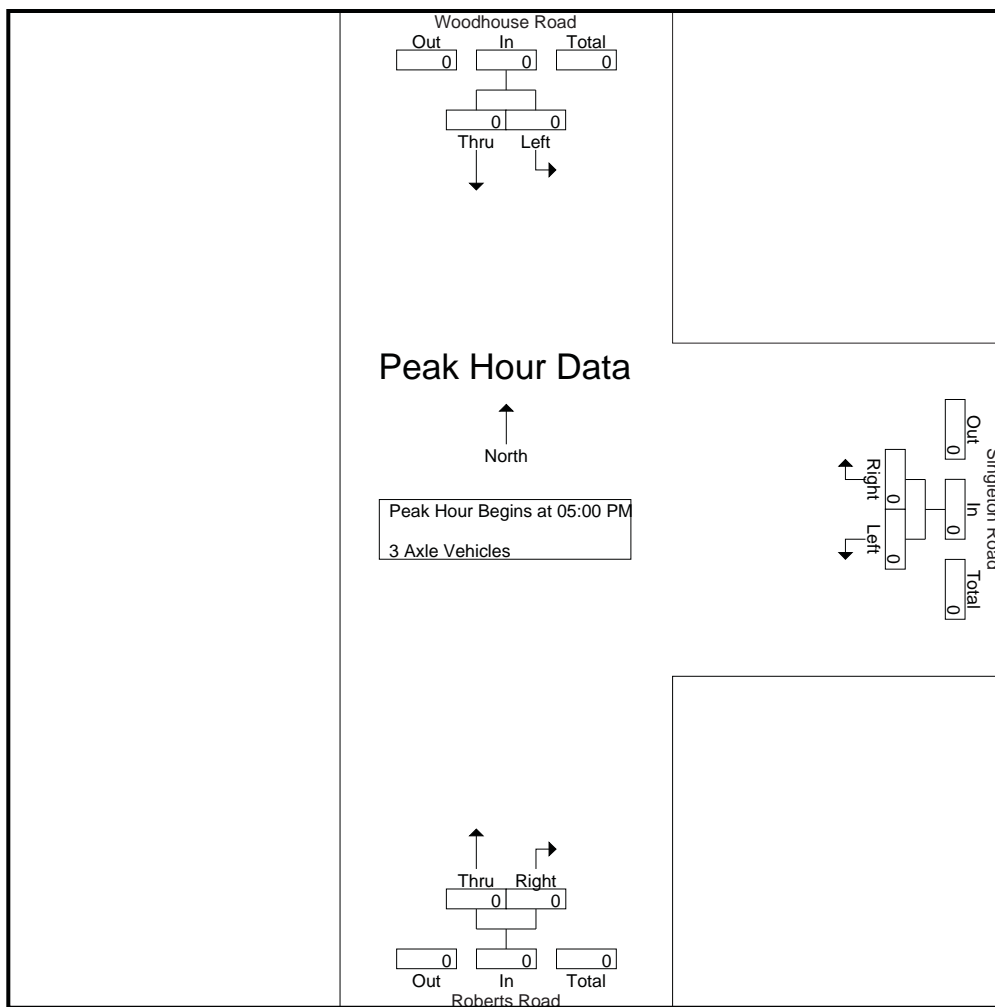
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 1

Groups Printed- 4+ Axle Trucks

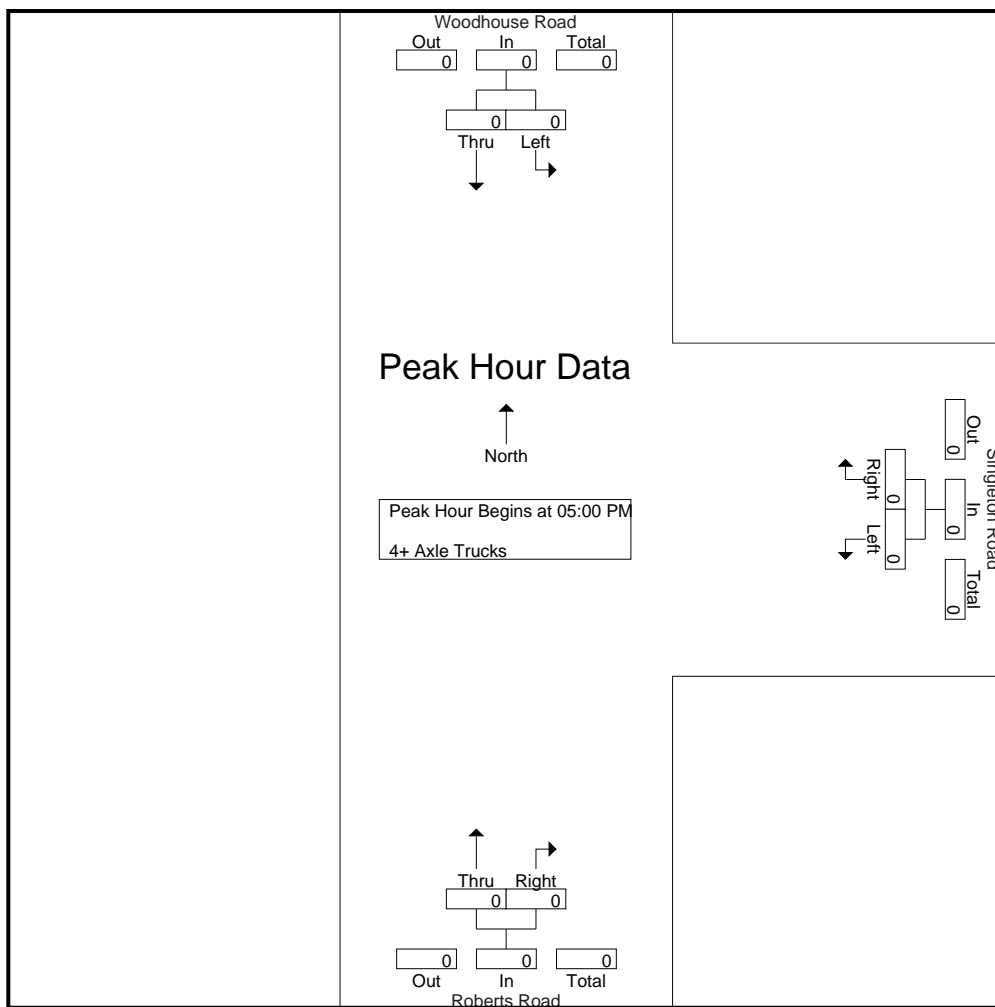
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.  
 PO Box 1178  
 Corona, CA 92878  
 (951)268-6268

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_Woo\_Sin PM  
 Site Code : 05122443  
 Start Date : 5/19/2022  
 Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Calimesa  
 N/S: Woodhouse Rd/Roberts Rd  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### PEDESTRIANS

	North Leg Woodhouse Road	East Leg Singleton Road	South Leg Roberts Road	West Leg Singleton Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Woodhouse Road	East Leg Singleton Road	South Leg Roberts Road	West Leg Singleton Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 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
TOTAL VOLUMES:	0	0	0	0	0

Location: Calimesa  
 N/S: Woodhouse Rd/Roberts Rd  
 E/W: Singleton Road



Date: 5/19/2022  
 Day: Thursday

### BICYCLES

	Southbound Woodhouse Road			Westbound Singleton Road			Northbound Roberts Road			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Woodhouse Road			Westbound Singleton Road			Northbound Roberts Road			Eastbound Singleton Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	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
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

# Counts Unlimited, Inc.

City of Calimesa  
 Beckwith Avenue  
 S/ Singleton Road  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL006  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	7			0	13				
12:15		0	8			2	12				
12:30		0	28			0	10				
12:45		0	12	0	55	0	13	2	48	2	103
01:00		0	12			0	16				
01:15		0	12			0	10				
01:30		0	6			0	1				
01:45		0	7	0	37	0	1	0	28	0	65
02:00		0	9			0	10				
02:15		1	9			1	6				
02:30		0	7			0	11				
02:45		0	16	1	41	0	8	1	35	2	76
03:00		0	12			0	11				
03:15		0	7			0	13				
03:30		0	4			0	10				
03:45		0	4	0	27	0	8	0	42	0	69
04:00		0	6			0	6				
04:15		2	13			0	6				
04:30		2	10			1	1				
04:45		2	15	6	44	1	10	2	23	8	67
05:00		4	7			0	5				
05:15		0	1			1	12				
05:30		1	8			2	9				
05:45		6	4	11	20	0	6	3	32	14	52
06:00		4	7			1	12				
06:15		2	7			1	10				
06:30		9	4			2	8				
06:45		3	3	18	21	6	5	10	35	28	56
07:00		7	5			2	5				
07:15		5	12			5	8				
07:30		2	7			2	6				
07:45		8	2	22	26	5	3	14	22	36	48
08:00		4	6			2	4				
08:15		8	5			8	8				
08:30		12	2			5	6				
08:45		9	2	33	15	6	7	21	25	54	40
09:00		31	1			6	4				
09:15		11	0			9	7				
09:30		12	2			8	3				
09:45		10	0	64	3	2	4	25	18	89	21
10:00		10	2			9	2				
10:15		7	0			3	2				
10:30		9	0			5	2				
10:45		7	0	33	2	11	1	28	7	61	9
11:00		11	0			3	2				
11:15		12	1			9	0				
11:30		7	0			1	0				
11:45		0	0	30	1	10	1	23	3	53	4
<b>Total</b>		<b>218</b>	<b>292</b>	<b>218</b>	<b>292</b>	<b>129</b>	<b>318</b>	<b>129</b>	<b>318</b>	<b>347</b>	<b>610</b>
<b>Combined Total</b>		<b>510</b>		<b>510</b>		<b>447</b>		<b>447</b>		<b>957</b>	
AM Peak	-	09:00	-	-	-	08:45	-	-	-	-	-
Vol.	-	64	-	-	-	29	-	-	-	-	-
P.H.F.	-	0.516	-	-	-	0.806	-	-	-	-	-
PM Peak	-	-	00:30	-	-	-	00:15	-	-	-	-
Vol.	-	-	64	-	-	-	51	-	-	-	-
P.H.F.	-	-	0.571	-	-	-	0.797	-	-	-	-
Percentage		42.7%	57.3%			28.9%	71.1%				
ADT/AADT		ADT 957		AADT 957							



# Counts Unlimited, Inc.

City of Calimesa  
 Calimesa Boulevard  
 N/ Cherry Valley Boulevard  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL007  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		6	18			1	15				
12:15		2	7			1	20				
12:30		4	15			5	27				
12:45		5	11	17	51	3	15	10	77	27	128
01:00		1	13			2	19				
01:15		0	17			0	20				
01:30		1	18			0	13				
01:45		2	20	4	68	2	14	4	66	8	134
02:00		2	14			0	20				
02:15		2	23			2	15				
02:30		0	21			0	20				
02:45		0	18	4	76	3	18	5	73	9	149
03:00		2	<b>23</b>			4	25				
03:15		0	<b>25</b>			0	16				
03:30		1	<b>22</b>			2	28				
03:45		1	<b>19</b>	4	89	2	19	8	88	12	177
04:00		1	20			2	33				
04:15		0	28			3	27				
04:30		3	17			0	34				
04:45		2	13	6	78	5	28	10	122	16	200
05:00		0	20			4	<b>46</b>				
05:15		2	22			3	<b>39</b>				
05:30		3	17			3	<b>38</b>				
05:45		5	12	10	71	4	<b>31</b>	14	154	24	225
06:00		1	26			9	29				
06:15		3	17			3	26				
06:30		8	17			7	22				
06:45		10	14	22	74	9	19	28	96	50	170
07:00		<b>48</b>	9			6	14				
07:15		<b>124</b>	15			7	13				
07:30		<b>113</b>	6			15	14				
07:45		<b>87</b>	11	372	41	16	17	44	58	416	99
08:00		30	17			12	11				
08:15		13	9			11	17				
08:30		12	9			10	7				
08:45		15	9	70	44	15	5	48	40	118	84
09:00		8	5			15	10				
09:15		19	9			8	5				
09:30		15	6			<b>18</b>	3				
09:45		13	5	55	25	<b>11</b>	3	52	21	107	46
10:00		18	2			<b>16</b>	6				
10:15		14	1			<b>18</b>	3				
10:30		19	3			13	3				
10:45		13	1	64	7	13	1	60	13	124	20
11:00		12	1			16	2				
11:15		17	1			11	1				
11:30		22	1			9	3				
11:45		12	3	63	6	16	0	52	6	115	12
<b>Total</b>		691	630	691	630	335	814	335	814	1026	1444
<b>Combined Total</b>		1321		1321		1149		1149		2470	
AM Peak	-	07:00	-	-	-	09:30	-	-	-	-	-
Vol.	-	372	-	-	-	63	-	-	-	-	-
P.H.F.	-	0.750	-	-	-	0.875	-	-	-	-	-
PM Peak	-	-	03:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	89	-	-	-	154	-	-	-	-
P.H.F.	-	-	0.890	-	-	-	0.837	-	-	-	-
Percentage		52.3%	47.7%			29.2%	70.8%				
ADT/AADT		ADT 2,470		AADT 2,470							

# Counts Unlimited, Inc.

City of Calimesa  
 Calimesa Boulevard  
 N/ Singleton Road  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL001  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	37			6	43				
12:15		4	38			5	37				
12:30		0	46			1	41				
12:45		4	39	8	160	1	32	13	153	21	313
01:00		1	32			0	39				
01:15		0	33			6	38				
01:30		3	30			2	31				
01:45		1	48	5	143	0	41	8	149	13	292
02:00		0	46			1	35				
02:15		2	43			2	38				
02:30		0	34			2	50				
02:45		0	45	2	168	1	32	6	155	8	323
03:00		1	46			0	46				
03:15		3	44			0	58				
03:30		1	45			0	51				
03:45		6	40	11	175	2	52	2	207	13	382
04:00		7	39			1	55				
04:15		11	40			1	62				
04:30		11	43			4	53				
04:45		13	30	42	152	5	55	11	225	53	377
05:00		14	41			5	60				
05:15		13	31			2	75				
05:30		11	41			2	68				
05:45		21	39	59	152	6	56	15	259	74	411
06:00		27	31			7	71				
06:15		32	35			6	67				
06:30		48	36			13	52				
06:45		55	27	162	129	18	43	44	233	206	362
07:00		74	32			7	31				
07:15		140	26			21	41				
07:30		117	16			29	30				
07:45		96	23	427	97	25	42	82	144	509	241
08:00		68	21			27	37				
08:15		51	14			27	31				
08:30		49	15			34	33				
08:45		35	10	203	60	26	29	114	130	317	190
09:00		34	7			23	27				
09:15		48	8			28	28				
09:30		42	12			24	15				
09:45		47	11	171	38	26	19	101	89	272	127
10:00		36	5			24	11				
10:15		35	8			35	7				
10:30		32	8			23	16				
10:45		35	3	138	24	29	5	111	39	249	63
11:00		38	5			25	7				
11:15		34	3			30	7				
11:30		39	3			21	5				
11:45		25	1	136	12	34	6	110	25	246	37
<b>Total</b>		1364	1310	1364	1310	617	1808	617	1808	1981	3118
<b>Combined Total</b>		2674		2674		2425		2425		5099	
AM Peak	-	07:00	-	-	-	08:00	-	-	-	-	-
Vol.	-	427	-	-	-	114	-	-	-	-	-
P.H.F.	-	0.763	-	-	-	0.838	-	-	-	-	-
PM Peak	-	-	02:45	-	-	-	05:15	-	-	-	-
Vol.	-	-	180	-	-	-	270	-	-	-	-
P.H.F.	-	-	0.978	-	-	-	0.900	-	-	-	-
Percentage		51.0%	49.0%			25.4%	74.6%				
ADT/AADT		ADT 5,099		AADT 5,099							

# Counts Unlimited, Inc.

City of Calimesa  
 Calimesa Boulevard  
 S/ Sandalwood Drive  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL010  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	108			6	43				
12:15		10	125			6	47				
12:30		10	136			2	44				
12:45		9	131	36	500	2	43	16	177	52	677
01:00		10	119			3	39				
01:15		9	98			4	46				
01:30		7	86			3	38				
01:45		7	135	33	438	0	42	10	165	43	603
02:00		4	139			2	36				
02:15		13	126			2	45				
02:30		2	137			2	55				
02:45		7	122	26	524	1	48	7	184	33	708
03:00		2	148			0	45				
03:15		9	124			0	51				
03:30		2	138			0	63				
03:45		16	137	29	547	3	55	3	214	32	761
04:00		21	118			0	56				
04:15		26	150			1	56				
04:30		27	134			0	69				
04:45		39	125	113	527	2	65	3	246	116	773
05:00		40	116			4	73				
05:15		45	125			0	78				
05:30		50	147			3	72				
05:45		63	135	198	523	5	62	12	285	210	808
06:00		77	116			8	72				
06:15		99	125			7	71				
06:30		118	103			11	55				
06:45		129	90	423	434	19	47	45	245	468	679
07:00		167	89			7	36				
07:15		217	88			28	37				
07:30		207	81			21	44				
07:45		180	74	771	332	20	44	76	161	847	493
08:00		151	62			24	32				
08:15		128	56			37	36				
08:30		123	59			22	41				
08:45		124	48	526	225	32	26	115	135	641	360
09:00		126	51			20	36				
09:15		125	41			28	34				
09:30		116	37			21	20				
09:45		118	39	485	168	23	24	92	114	577	282
10:00		108	26			28	11				
10:15		111	30			31	11				
10:30		128	24			25	16				
10:45		86	22	433	102	38	9	122	47	555	149
11:00		115	22			26	7				
11:15		115	18			34	9				
11:30		111	18			24	5				
11:45		116	5	457	63	37	7	121	28	578	91
<b>Total</b>		<b>3530</b>	<b>4383</b>	<b>3530</b>	<b>4383</b>	<b>622</b>	<b>2001</b>	<b>622</b>	<b>2001</b>	<b>4152</b>	<b>6384</b>
<b>Combined Total</b>		<b>7913</b>		<b>7913</b>		<b>2623</b>		<b>2623</b>		<b>10536</b>	
AM Peak	-	07:00	-	-	-	10:30	-	-	-	-	-
Vol.	-	771	-	-	-	123	-	-	-	-	-
P.H.F.		0.888				0.809					
PM Peak	-	-	03:00	-	-	-	04:45	-	-	-	-
Vol.	-	-	547	-	-	-	288	-	-	-	-
P.H.F.			0.924				0.923				
Percentage		44.6%	55.4%			23.7%	76.3%				
ADT/AADT		ADT 10,536		AADT 10,536							

# Counts Unlimited, Inc.

City of Calimesa  
 Calimesa Boulevard  
 S/ Singleton Road  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL002  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	19			2	19				
12:15		4	12			1	24				
12:30		0	12			0	24				
12:45		3	7	9	50	0	14	3	81	12	131
01:00		0	17			0	14				
01:15		3	8			3	16				
01:30		1	17			2	13				
01:45		0	23	4	65	1	16	6	59	10	124
02:00		1	17			0	20				
02:15		0	18			0	20				
02:30		0	15			2	19				
02:45		1	21	2	71	1	19	3	78	5	149
03:00		0	27			0	25				
03:15		0	22			1	26				
03:30		0	23			0	27				
03:45		2	15	2	87	1	18	2	96	4	183
04:00		3	26			0	31				
04:15		1	23			0	26				
04:30		3	15			0	33				
04:45		5	14	12	78	5	33	5	123	17	201
05:00		0	14			3	35				
05:15		2	20			3	40				
05:30		1	14			2	44				
05:45		4	17	7	65	4	31	12	150	19	215
06:00		4	20			6	33				
06:15		6	22			3	28				
06:30		7	17			6	26				
06:45		12	13	29	72	6	19	21	106	50	178
07:00		17	11			9	14				
07:15		114	16			5	15				
07:30		112	7			7	18				
07:45		105	11	348	45	16	15	37	62	385	107
08:00		26	15			12	18				
08:15		14	11			9	15				
08:30		15	7			5	8				
08:45		13	8	68	41	13	3	39	44	107	85
09:00		13	7			10	12				
09:15		22	7			7	5				
09:30		17	6			19	3				
09:45		17	5	69	25	11	5	47	25	116	50
10:00		18	4			16	6				
10:15		15	1			18	4				
10:30		19	3			10	3				
10:45		15	1	67	9	9	2	53	15	120	24
11:00		15	3			14	2				
11:15		20	2			15	2				
11:30		18	0			12	2				
11:45		19	0	72	5	24	4	65	10	137	15
<b>Total</b>		<b>689</b>	<b>613</b>	<b>689</b>	<b>613</b>	<b>293</b>	<b>849</b>	<b>293</b>	<b>849</b>	<b>982</b>	<b>1462</b>
<b>Combined Total</b>		<b>1302</b>		<b>1302</b>		<b>1142</b>		<b>1142</b>		<b>2444</b>	
AM Peak	-	07:15	-	-	-	11:00	-	-	-	-	-
Vol.	-	357	-	-	-	65	-	-	-	-	-
P.H.F.	-	0.783	-	-	-	0.677	-	-	-	-	-
PM Peak	-	-	02:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	93	-	-	-	152	-	-	-	-
P.H.F.	-	-	0.861	-	-	-	0.864	-	-	-	-
Percentage		52.9%	47.1%			25.7%	74.3%				
ADT/AADT		ADT 2,444		AADT 2,444							

# Counts Unlimited, Inc.

City of Calimesa  
 Cherry Valley Boulevard  
 E/ Calimesa Boulevard  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL009  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	60			4	79				
12:15		11	75			2	58				
12:30		6	81			5	66				
12:45		9	69	36	285	3	65	14	268	50	553
01:00		6	72			0	75				
01:15		7	88			3	101				
01:30		5	68			4	93				
01:45		4	73	22	301	5	80	12	349	34	650
02:00		6	76			5	90				
02:15		4	84			5	87				
02:30		2	79			4	101				
02:45		2	77	14	316	6	67	20	345	34	661
03:00		2	84			4	81				
03:15		1	114			12	85				
03:30		5	109			12	<b>88</b>				
03:45		3	99	11	406	20	<b>112</b>	48	366	59	772
04:00		6	93			15	<b>91</b>				
04:15		5	76			32	<b>87</b>				
04:30		8	126			30	78				
04:45		24	96	43	391	27	75	104	331	147	722
05:00		29	<b>113</b>			31	74				
05:15		34	<b>96</b>			50	64				
05:30		26	<b>112</b>			41	65				
05:45		22	<b>111</b>	111	432	62	57	184	260	295	692
06:00		39	84			71	55				
06:15		20	88			73	49				
06:30		28	86			88	44				
06:45		44	79	131	337	<b>107</b>	52	339	200	470	537
07:00		41	73			<b>148</b>	40				
07:15		41	62			<b>173</b>	41				
07:30		51	62			<b>132</b>	32				
07:45		71	61	204	258	103	32	556	145	760	403
08:00		67	57			118	42				
08:15		46	56			122	37				
08:30		54	49			102	46				
08:45		42	47	209	209	86	28	428	153	637	362
09:00		51	46			57	26				
09:15		43	45			72	16				
09:30		48	42			93	15				
09:45		53	26	195	159	79	15	301	72	496	231
10:00		67	21			95	10				
10:15		67	28			63	14				
10:30		45	21			64	17				
10:45		58	11	237	81	71	4	293	45	530	126
11:00		<b>63</b>	13			84	8				
11:15		<b>64</b>	12			78	8				
11:30		<b>71</b>	10			77	13				
11:45		<b>70</b>	12	268	47	55	4	294	33	562	80
<b>Total</b>		1481	3222	1481	3222	2593	2567	2593	2567	4074	5789
<b>Combined Total</b>		4703		4703		5160		5160		9863	
AM Peak	-	11:00	-	-	-	06:45	-	-	-	-	-
Vol.	-	268	-	-	-	560	-	-	-	-	-
P.H.F.	-	0.944	-	-	-	0.809	-	-	-	-	-
PM Peak	-	-	05:00	-	-	-	03:30	-	-	-	-
Vol.	-	-	432	-	-	-	378	-	-	-	-
P.H.F.	-	-	0.956	-	-	-	0.844	-	-	-	-
Percentage		31.5%	68.5%			50.3%	49.7%				
ADT/AADT		ADT 9,863		AADT 9,863							

# Counts Unlimited, Inc.

City of Calimesa  
 Cherry Valley Boulevard  
 W/ Calimesa Boulevard  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL008  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		16	62			5	78				
12:15		13	61			3	57				
12:30		10	69			10	66				
12:45		12	68	51	260	4	68	22	269	73	529
01:00		7	65			2	74				
01:15		7	85			2	101				
01:30		6	67			4	87				
01:45		5	72	25	289	6	73	14	335	39	624
02:00		7	70			4	90				
02:15		5	82			6	77				
02:30		2	77			4	98				
02:45		2	71	16	300	9	61	23	326	39	626
03:00		3	81			7	80				
03:15		1	115			12	77				
03:30		6	101			14	<b>86</b>				
03:45		4	91	14	388	22	<b>104</b>	55	347	69	735
04:00		7	80			17	<b>91</b>				
04:15		4	70			34	<b>80</b>				
04:30		9	<b>113</b>			28	82				
04:45		23	<b>88</b>	43	351	29	82	108	335	151	686
05:00		28	<b>98</b>			34	85				
05:15		33	<b>90</b>			50	75				
05:30		27	98			42	72				
05:45		23	96	111	382	62	61	188	293	299	675
06:00		36	82			76	56				
06:15		21	80			74	50				
06:30		30	83			89	46				
06:45		43	76	130	321	<b>105</b>	54	344	206	474	527
07:00		62	64			<b>127</b>	36				
07:15		<b>116</b>	68			<b>131</b>	45				
07:30		<b>123</b>	59			<b>106</b>	37				
07:45		<b>117</b>	57	418	248	78	34	442	152	860	400
08:00		<b>70</b>	62			103	41				
08:15		45	49			119	38				
08:30		52	47			98	42				
08:45		42	50	209	208	86	27	406	148	615	356
09:00		45	42			58	27				
09:15		50	45			68	12				
09:30		43	42			91	12				
09:45		52	26	190	155	76	13	293	64	483	219
10:00		62	20			88	13				
10:15		63	26			63	14				
10:30		49	21			62	17				
10:45		59	10	233	77	72	3	285	47	518	124
11:00		62	12			87	8				
11:15		67	11			75	7				
11:30		79	10			72	15				
11:45		69	15	277	48	58	4	292	34	569	82
<b>Total</b>		1717	3027	1717	3027	2472	2556	2472	2556	4189	5583
<b>Combined Total</b>		4744		4744		5028		5028		9772	
AM Peak	-	07:15	-	-	-	06:45	-	-	-	-	-
Vol.	-	426	-	-	-	469	-	-	-	-	-
P.H.F.	-	0.866	-	-	-	0.895	-	-	-	-	-
PM Peak	-	-	04:30	-	-	-	03:30	-	-	-	-
Vol.	-	-	389	-	-	-	361	-	-	-	-
P.H.F.	-	-	0.846	-	-	-	0.868	-	-	-	-
Percentage		36.2%	63.8%			49.2%	50.8%				
ADT/AADT		ADT 9,772		AADT 9,772							

# Counts Unlimited, Inc.

City of Calimesa  
 Singleton Road  
 E/ Beckwith Avenue  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL005  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		11	50			2	38				
12:15		7	60			6	59				
12:30		8	60			1	61				
12:45		3	41	29	211	2	57	11	215	40	426
01:00		7	60			2	45				
01:15		6	50			2	57				
01:30		2	59			4	42				
01:45		1	70	16	239	4	58	12	202	28	441
02:00		3	48			2	66				
02:15		3	62			3	57				
02:30		3	71			3	58				
02:45		4	86	13	267	1	73	9	254	22	521
03:00		2	74			4	80				
03:15		4	71			3	71				
03:30		3	80			3	73				
03:45		6	97	15	322	8	66	18	290	33	612
04:00		8	104			9	75				
04:15		2	107			16	52				
04:30		6	89			17	68				
04:45		6	89	22	389	24	48	66	243	88	632
05:00		3	87			25	57				
05:15		8	106			33	61				
05:30		9	88			33	82				
05:45		19	98	39	379	46	70	137	270	176	649
06:00		14	87			48	50				
06:15		18	91			61	49				
06:30		29	66			76	51				
06:45		41	54	102	298	97	43	282	193	384	491
07:00		56	55			141	55				
07:15		74	50			118	32				
07:30		84	45			112	27				
07:45		85	62	299	212	101	40	472	154	771	366
08:00		77	62			104	25				
08:15		47	44			76	20				
08:30		56	40			74	26				
08:45		46	39	226	185	56	23	310	94	536	279
09:00		33	36			38	26				
09:15		37	31			57	17				
09:30		34	22			56	18				
09:45		38	28	142	117	46	12	197	73	339	190
10:00		31	22			46	8				
10:15		33	18			52	12				
10:30		39	18			29	6				
10:45		39	13	142	71	44	3	171	29	313	100
11:00		42	14			47	7				
11:15		62	13			34	3				
11:30		28	11			41	6				
11:45		20	13	152	51	32	1	154	17	306	68
<b>Total</b>		1197	2741	1197	2741	1839	2034	1839	2034	3036	4775
<b>Combined Total</b>		3938		3938		3873		3873		7811	
AM Peak	-	07:15	-	-	-	07:00	-	-	-	-	-
Vol.	-	320	-	-	-	472	-	-	-	-	-
P.H.F.	-	0.941	-	-	-	0.837	-	-	-	-	-
PM Peak	-	-	03:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	397	-	-	-	297	-	-	-	-
P.H.F.	-	-	0.928	-	-	-	0.928	-	-	-	-
Percentage		30.4%	69.6%			47.5%	52.5%				
ADT/AADT		ADT 7,811		AADT 7,811							

# Counts Unlimited, Inc.

City of Calimesa  
 Singleton Road  
 W/ Beckwith Avenue  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL004  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		11	62			2	44				
12:15		9	66			6	61				
12:30		8	63			1	82				
12:45		3	52	31	243	2	67	11	254	42	497
01:00		7	70			2	51				
01:15		6	57			2	66				
01:30		2	60			4	48				
01:45		1	71	16	258	4	65	12	230	28	488
02:00		3	53			2	70				
02:15		4	66			4	64				
02:30		3	81			3	64				
02:45		4	90	14	290	1	85	10	283	24	573
03:00		2	83			4	90				
03:15		4	81			3	75				
03:30		3	87			3	74				
03:45		6	103	15	354	8	68	18	307	33	661
04:00		8	103			9	74				
04:15		2	107			18	59				
04:30		7	88			19	76				
04:45		6	95	23	393	25	59	71	268	94	661
05:00		3	90			29	62				
05:15		9	117			33	61				
05:30		10	93			33	86				
05:45		19	102	41	402	52	72	147	281	188	683
06:00		15	92			52	50				
06:15		19	99			63	54				
06:30		29	72			83	53				
06:45		45	58	108	321	98	45	296	202	404	523
07:00		56	58			146	58				
07:15		78	57			122	43				
07:30		86	50			114	33				
07:45		88	65	308	230	107	42	489	176	797	406
08:00		78	66			107	31				
08:15		52	52			81	25				
08:30		59	46			84	28				
08:45		51	44	240	208	63	22	335	106	575	314
09:00		27	40			57	27				
09:15		42	37			64	16				
09:30		38	25			64	20				
09:45		36	31	143	133	52	11	237	74	380	207
10:00		35	24			51	10				
10:15		33	19			56	11				
10:30		41	20			35	6				
10:45		49	14	158	77	50	3	192	30	350	107
11:00		43	16			56	7				
11:15		68	13			43	4				
11:30		29	11			48	6				
11:45		30	14	170	54	32	1	179	18	349	72
<b>Total</b>		1267	2963	1267	2963	1997	2229	1997	2229	3264	5192
<b>Combined Total</b>		4230		4230		4226		4226		8456	
AM Peak	-	07:15	-	-	-	07:00	-	-	-	-	-
Vol.	-	330	-	-	-	489	-	-	-	-	-
P.H.F.	-	0.938	-	-	-	0.837	-	-	-	-	-
PM Peak	-	-	05:15	-	-	-	02:45	-	-	-	-
Vol.	-	-	404	-	-	-	324	-	-	-	-
P.H.F.	-	-	0.863	-	-	-	0.900	-	-	-	-
Percentage		30.0%	70.0%			47.3%	52.7%				
ADT/AADT		ADT 8,456	AADT 8,456								



# Counts Unlimited, Inc.

City of Calimesa  
 Singleton Road  
 W/ Calimesa Boulevard  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CAL003  
 Site Code: 051-22490

Start Time	19-May-22 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	51			3	29				
12:15		4	44			6	31				
12:30		7	45			0	49				
12:45		2	34	20	174	2	39	11	148	31	322
01:00		7	49			0	32				
01:15		3	37			6	41				
01:30		3	39			3	33				
01:45		1	48	14	173	2	36	11	142	25	315
02:00		2	30			3	36				
02:15		2	46			2	37				
02:30		3	55			3	42				
02:45		4	67	11	198	2	<b>50</b>	10	165	21	363
03:00		2	54			3	<b>65</b>				
03:15		5	50			2	<b>54</b>				
03:30		4	60			3	<b>53</b>				
03:45		5	81	16	245	4	48	12	220	28	465
04:00		7	66			7	53				
04:15		3	64			10	34				
04:30		3	<b>69</b>			12	50				
04:45		3	<b>69</b>	16	268	14	36	43	173	59	441
05:00		3	<b>82</b>			18	47				
05:15		8	<b>76</b>			21	44				
05:30		9	67			21	57				
05:45		14	67	34	292	31	44	91	192	125	484
06:00		15	48			22	33				
06:15		18	55			43	34				
06:30		30	36			49	24				
06:45		35	29	98	168	57	28	171	119	269	287
07:00		50	43			<b>73</b>	35				
07:15		38	27			<b>79</b>	28				
07:30		39	30			<b>85</b>	22				
07:45		47	32	174	132	<b>82</b>	17	319	102	493	234
08:00		<b>73</b>	37			67	16				
08:15		<b>46</b>	25			55	11				
08:30		<b>48</b>	19			65	20				
08:45		<b>48</b>	17	215	98	41	19	228	66	443	164
09:00		27	28			35	29				
09:15		24	13			41	17				
09:30		27	12			29	12				
09:45		25	16	103	69	30	7	135	65	238	134
10:00		21	16			25	4				
10:15		21	20			32	8				
10:30		30	12			26	8				
10:45		29	13	101	61	34	3	117	23	218	84
11:00		35	11			30	6				
11:15		26	10			25	4				
11:30		21	8			22	3				
11:45		41	11	123	40	30	0	107	13	230	53
<b>Total</b>		925	1918	925	1918	1255	1428	1255	1428	2180	3346
<b>Combined Total</b>		2843		2843		2683		2683		5526	
AM Peak	-	08:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	215	-	-	-	319	-	-	-	-	-
P.H.F.	-	0.736	-	-	-	0.938	-	-	-	-	-
PM Peak	-	-	04:30	-	-	-	02:45	-	-	-	-
Vol.	-	-	296	-	-	-	222	-	-	-	-
P.H.F.	-	-	0.902	-	-	-	0.854	-	-	-	-
Percentage		32.5%	67.5%			46.8%	53.2%				
ADT/AADT		ADT 5,526		AADT 5,526							

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_10E\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

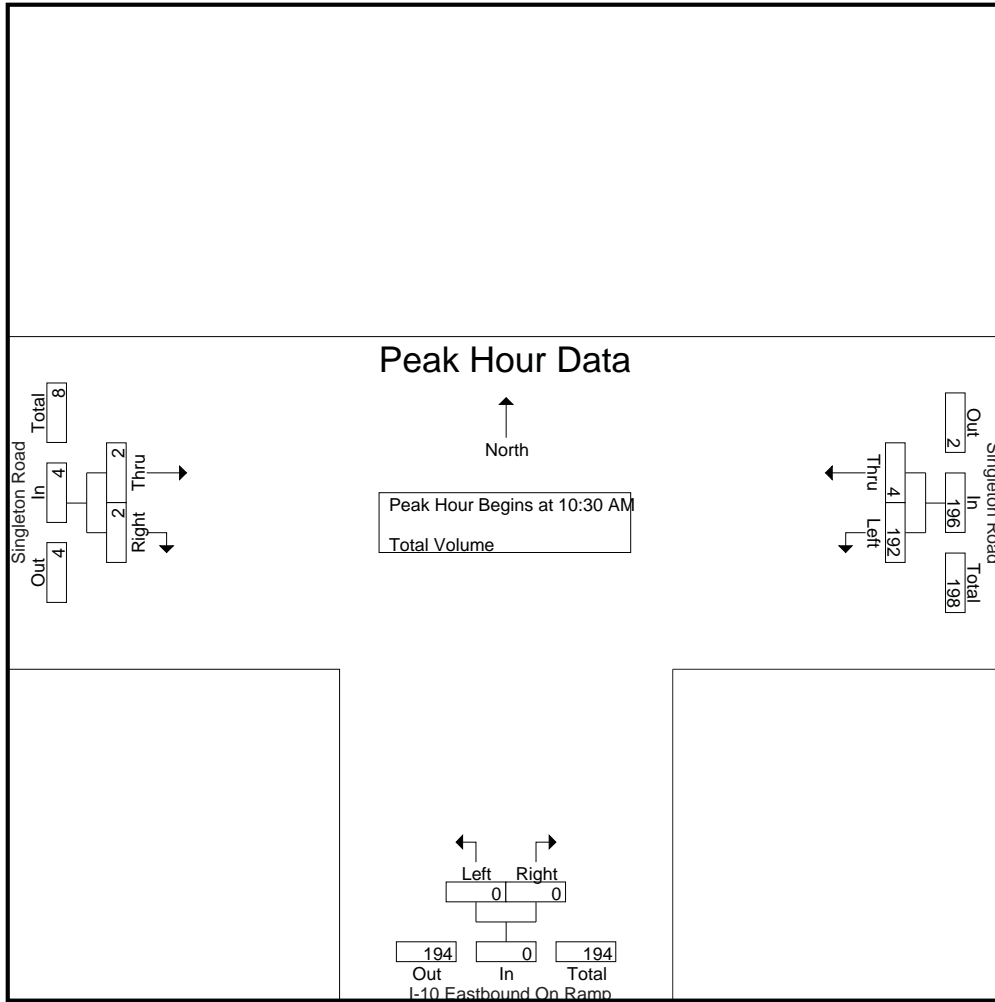
Groups Printed- Total Volume

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:30 AM	31	0	31	0	0	0	0	0	0	31
08:45 AM	27	1	28	0	0	0	1	0	1	29
Total	58	1	59	0	0	0	1	0	1	60
09:00 AM	20	1	21	0	0	0	0	0	0	21
09:15 AM	28	0	28	0	0	0	0	0	0	28
09:30 AM	28	0	28	0	0	0	0	0	0	28
09:45 AM	26	0	26	0	0	0	0	0	0	26
Total	102	1	103	0	0	0	0	0	0	103
10:00 AM	36	4	40	0	0	0	1	2	3	43
10:15 AM	30	0	30	0	0	0	1	1	2	32
10:30 AM	54	2	56	0	0	0	0	1	1	57
10:45 AM	44	0	44	0	0	0	1	0	1	45
Total	164	6	170	0	0	0	3	4	7	177
11:00 AM	42	2	44	0	0	0	0	1	1	45
11:15 AM	52	0	52	0	0	0	1	0	1	53
11:30 AM	38	0	38	0	0	0	0	0	0	38
11:45 AM	41	1	42	0	0	0	1	0	1	43
Total	173	3	176	0	0	0	2	1	3	179
12:00 PM	40	0	40	0	0	0	1	0	1	41
12:15 PM	55	1	56	0	0	0	1	0	1	57
Grand Total	592	12	604	0	0	0	8	5	13	617
Apprch %	98	2		0	0		61.5	38.5		
Total %	95.9	1.9	97.9	0	0	0	1.3	0.8	2.1	

Start Time	Singleton Road Westbound			I-10 Eastbound On Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 10:30 AM										
10:30 AM	54	2	56	0	0	0	0	1	1	57
10:45 AM	44	0	44	0	0	0	1	0	1	45
11:00 AM	42	2	44	0	0	0	0	1	1	45
11:15 AM	52	0	52	0	0	0	1	0	1	53
Total Volume	192	4	196	0	0	0	2	2	4	200
% App. Total	98	2		0	0		50	50		
PHF	.889	.500	.875	.000	.000	.000	.500	.500	1.00	.877

City of Calimesa  
 N/S: I-10 Eastbound On Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 01\_CAL\_10E\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	10:30 AM			08:30 AM			10:00 AM		
+0 mins.	54	2	56	0	0	0	1	2	3
+15 mins.	44	0	44	0	0	0	1	1	2
+30 mins.	42	2	44	0	0	0	0	1	1
+45 mins.	52	0	52	0	0	0	1	0	1
Total Volume	192	4	196	0	0	0	3	4	7
% App. Total	98	2		0	0		42.9	57.1	
PHF	.889	.500	.875	.000	.000	.000	.750	.500	.583

City of Calimesa  
 N/S: I-10 Eastbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10W\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

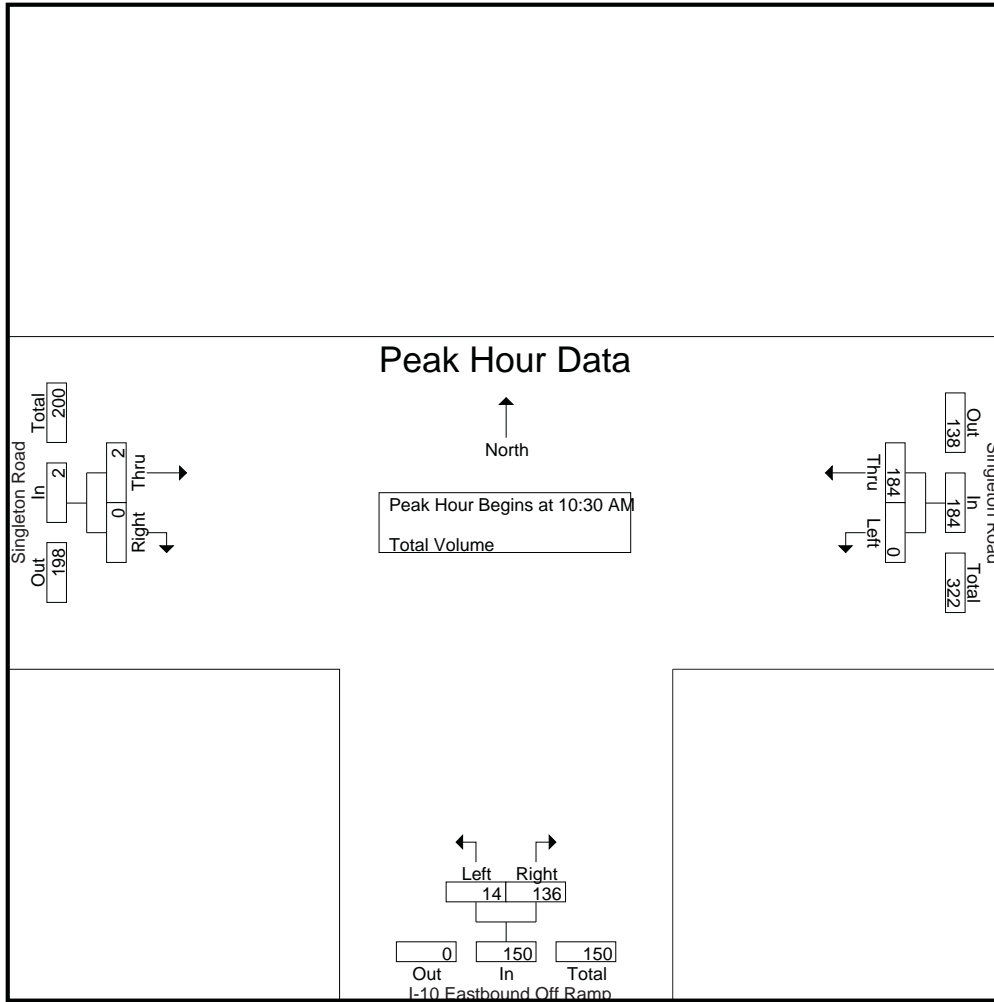
Groups Printed- Total Volume

Start Time	Singleton Road Westbound			I-10 Eastbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:30 AM	0	29	29	1	30	31	0	0	0	60
08:45 AM	0	26	26	2	46	48	1	0	1	75
Total	0	55	55	3	76	79	1	0	1	135
09:00 AM	0	20	20	0	28	28	0	0	0	48
09:15 AM	0	27	27	0	23	23	0	0	0	50
09:30 AM	0	29	29	0	22	22	0	0	0	51
09:45 AM	0	26	26	0	20	20	0	0	0	46
Total	0	102	102	0	93	93	0	0	0	195
10:00 AM	0	35	35	5	31	36	1	0	1	72
10:15 AM	0	30	30	1	26	27	1	0	1	58
10:30 AM	0	47	47	7	37	44	0	0	0	91
10:45 AM	0	41	41	5	38	43	1	0	1	85
Total	0	153	153	18	132	150	3	0	3	306
11:00 AM	0	42	42	2	25	27	0	0	0	69
11:15 AM	0	54	54	0	36	36	1	0	1	91
11:30 AM	0	37	37	0	54	54	0	0	0	91
11:45 AM	0	43	43	0	31	31	1	0	1	75
Total	0	176	176	2	146	148	2	0	2	326
12:00 PM	0	39	39	1	22	23	1	0	1	63
12:15 PM	0	55	55	1	36	37	2	0	2	94
Grand Total	0	580	580	25	505	530	9	0	9	1119
Apprch %	0	100		4.7	95.3		100	0		
Total %	0	51.8	51.8	2.2	45.1	47.4	0.8	0	0.8	

Start Time	Singleton Road Westbound			I-10 Eastbound Off Ramp Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 10:30 AM										
10:30 AM	0	47	47	7	37	44	0	0	0	91
10:45 AM	0	41	41	5	38	43	1	0	1	85
11:00 AM	0	42	42	2	25	27	0	0	0	69
11:15 AM	0	54	54	0	36	36	1	0	1	91
Total Volume	0	184	184	14	136	150	2	0	2	336
% App. Total	0	100		9.3	90.7		100	0		
PHF	.000	.852	.852	.500	.895	.852	.500	.000	.500	.923

City of Calimesa  
 N/S: I-10 Eastbound Off Ramp  
 E/W: Singleton Road  
 Weather: Clear

File Name : 02\_CAL\_10W\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	10:30 AM			10:45 AM			11:30 AM		
+0 mins.	0	47	47	5	38	43	0	0	0
+15 mins.	0	41	41	2	25	27	1	0	1
+30 mins.	0	42	42	0	36	36	1	0	1
+45 mins.	0	<b>54</b>	<b>54</b>	0	<b>54</b>	<b>54</b>	<b>2</b>	0	<b>2</b>
Total Volume	0	184	184	7	153	160	4	0	4
% App. Total	0	100		4.4	95.6		100	0	
PHF	.000	.852	.852	.350	.708	.741	.500	.000	.500

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_Cali\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

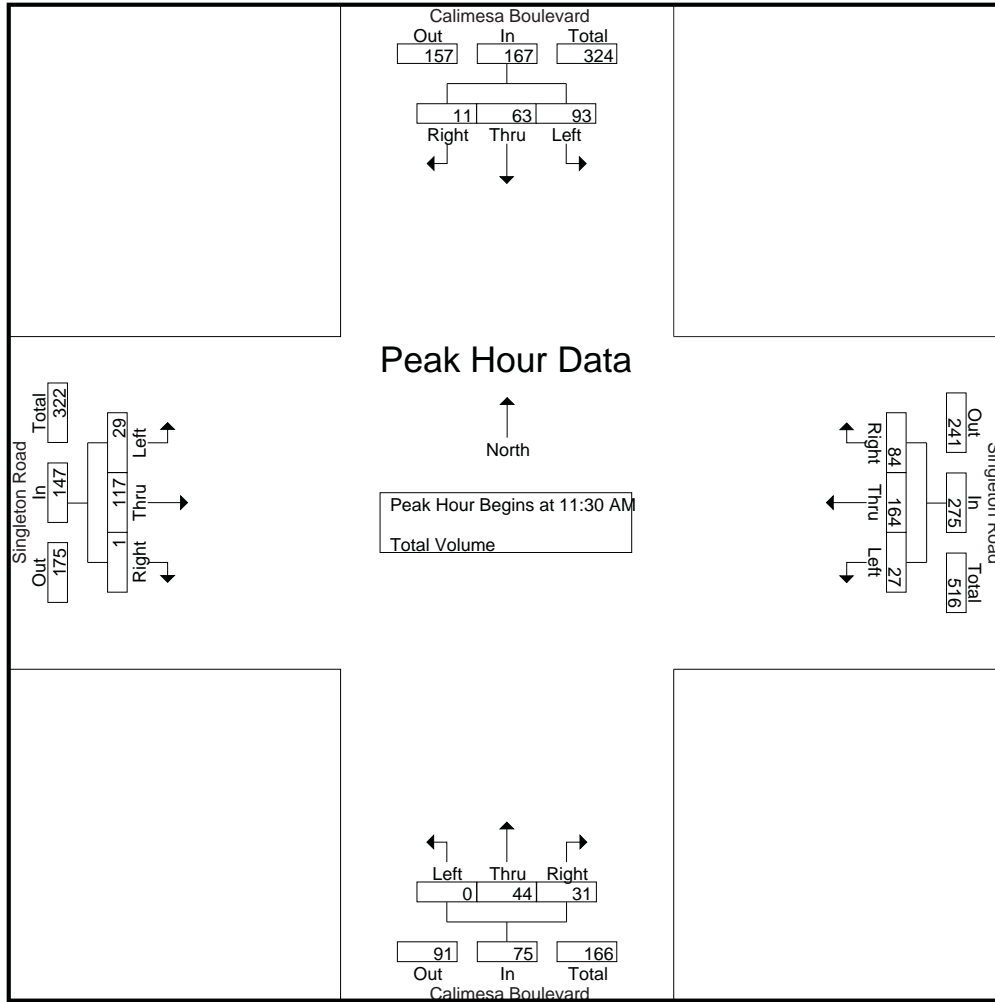
Groups Printed- Total Volume

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:30 AM	6	2	3	11	3	27	25	55	0	6	12	18	0	30	0	30	114
08:45 AM	11	5	1	17	2	23	22	47	1	9	14	24	2	45	0	47	135
Total	17	7	4	28	5	50	47	102	1	15	26	42	2	75	0	77	249
09:00 AM	11	3	1	15	4	20	22	46	0	3	6	9	1	30	0	31	101
09:15 AM	9	4	0	13	6	27	24	57	0	5	8	13	1	22	0	23	106
09:30 AM	10	3	0	13	2	29	23	54	0	12	3	15	4	18	0	22	104
09:45 AM	15	9	0	24	4	26	29	59	0	10	3	13	5	15	0	20	116
Total	45	19	1	65	16	102	98	216	0	30	20	50	11	85	0	96	427
10:00 AM	9	9	2	20	9	34	23	66	0	6	6	12	4	27	0	31	129
10:15 AM	7	8	2	17	7	30	24	61	0	12	6	18	3	22	1	26	122
10:30 AM	18	9	6	33	4	41	28	73	1	10	8	19	3	35	0	38	163
10:45 AM	16	11	2	29	3	40	27	70	0	7	8	15	4	36	1	41	155
Total	50	37	12	99	23	145	102	270	1	35	28	64	14	120	2	136	569
11:00 AM	13	12	1	26	6	41	16	63	0	7	8	15	0	24	0	24	128
11:15 AM	10	10	1	21	10	52	26	88	0	11	10	21	11	26	0	37	167
11:30 AM	15	18	3	36	9	34	19	62	0	13	7	20	22	33	0	55	173
11:45 AM	27	19	4	50	8	41	23	72	0	12	11	23	2	29	1	32	177
Total	65	59	9	133	33	168	84	285	0	43	36	79	35	112	1	148	645
12:00 PM	23	13	1	37	5	36	26	67	0	12	7	19	1	22	0	23	146
12:15 PM	28	13	3	44	5	53	16	74	0	7	6	13	4	33	0	37	168
Grand Total	228	148	30	406	87	554	373	1014	2	142	123	267	67	447	3	517	2204
Apprch %	56.2	36.5	7.4		8.6	54.6	36.8		0.7	53.2	46.1		13	86.5	0.6		
Total %	10.3	6.7	1.4	18.4	3.9	25.1	16.9	46	0.1	6.4	5.6	12.1	3	20.3	0.1	23.5	

Start Time	Calimesa Boulevard Southbound				Singleton Road Westbound				Calimesa Boulevard Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	15	18	3	36	9	34	19	62	0	13	7	20	22	33	0	55	173
11:45 AM	27	19	4	50	8	41	23	72	0	12	11	23	2	29	1	32	177
12:00 PM	23	13	1	37	5	36	26	67	0	12	7	19	1	22	0	23	146
12:15 PM	28	13	3	44	5	53	16	74	0	7	6	13	4	33	0	37	168
Total Volume	93	63	11	167	27	164	84	275	0	44	31	75	29	117	1	147	664
% App. Total	55.7	37.7	6.6		9.8	59.6	30.5		0	58.7	41.3		19.7	79.6	0.7		
PHF	.830	.829	.688	.835	.750	.774	.808	.929	.000	.846	.705	.815	.330	.886	.250	.668	.938

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Singleton Road  
 Weather: Clear

File Name : 03\_CAL\_Cali\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	11:30 AM				10:30 AM				11:15 AM				10:45 AM			
+0 mins.	15	18	3	36	4	41	<b>28</b>	73	0	11	10	21	4	<b>36</b>	1	41
+15 mins.	27	<b>19</b>	<b>4</b>	<b>50</b>	3	40	27	70	0	<b>13</b>	7	20	0	24	0	24
+30 mins.	23	13	1	37	6	41	16	63	0	12	<b>11</b>	<b>23</b>	11	26	0	37
+45 mins.	<b>28</b>	13	3	44	<b>10</b>	<b>52</b>	26	<b>88</b>	0	12	7	19	<b>22</b>	33	0	<b>55</b>
Total Volume	93	63	11	167	23	174	97	294	0	48	35	83	37	119	1	157
% App. Total	55.7	37.7	6.6		7.8	59.2	33		0	57.8	42.2		23.6	75.8	0.6	
PHF	.830	.829	.688	.835	.575	.837	.866	.835	.000	.923	.795	.902	.420	.826	.250	.714

City of Calimesa  
 N/S: Beckwith Avenue  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Beck\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

Groups Printed- Total Volume

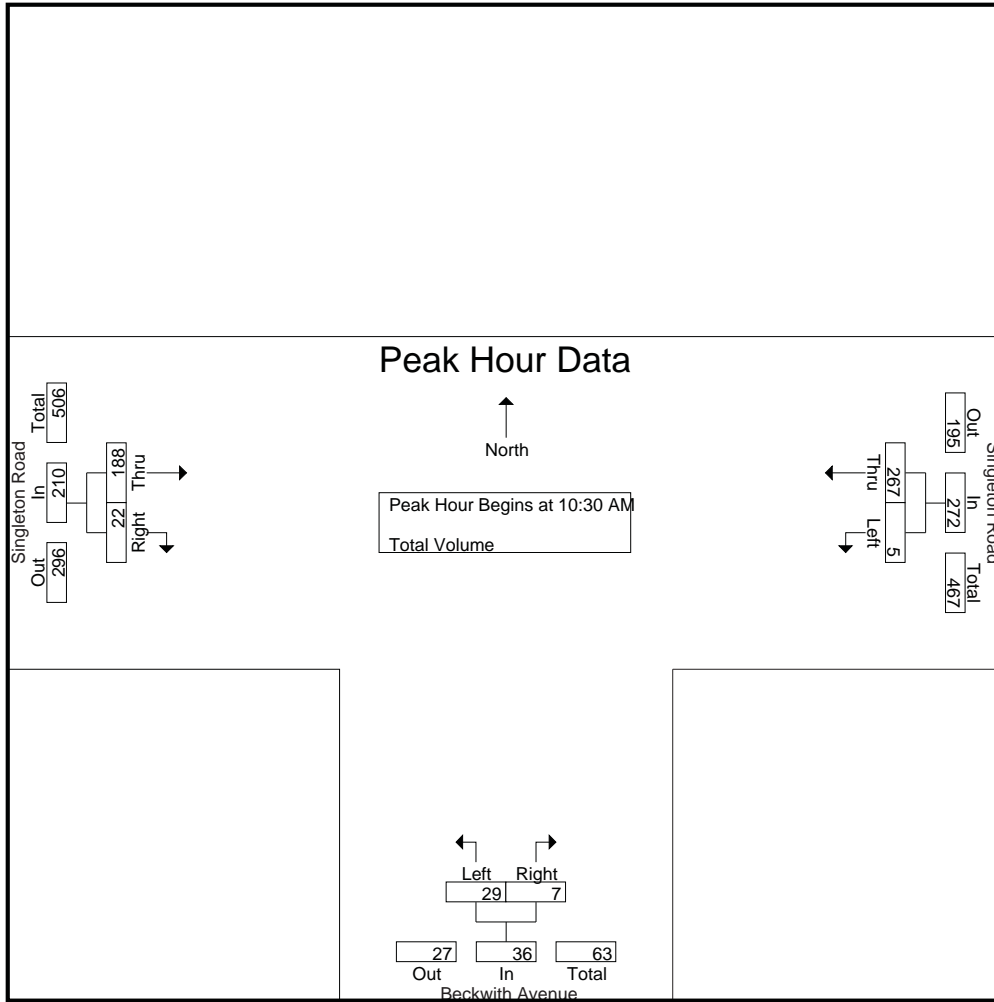
Start Time	Singleton Road Westbound			Beckwith Avenue Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:30 AM	0	45	45	9	4	13	47	1	48	106
08:45 AM	0	45	45	4	2	6	62	5	67	118
Total	0	90	90	13	6	19	109	6	115	224
09:00 AM	1	40	41	2	3	5	42	4	46	92
09:15 AM	0	54	54	3	0	3	35	3	38	95
09:30 AM	2	51	53	5	0	5	26	5	31	89
09:45 AM	2	54	56	6	1	7	30	3	33	96
Total	5	199	204	16	4	20	133	15	148	372
10:00 AM	0	57	57	7	2	9	40	2	42	108
10:15 AM	1	52	53	8	2	10	31	5	36	99
10:30 AM	0	72	72	5	2	7	51	6	57	136
10:45 AM	2	63	65	6	4	10	57	3	60	135
Total	3	244	247	26	10	36	179	16	195	478
11:00 AM	2	56	58	8	0	8	39	7	46	112
11:15 AM	1	76	77	10	1	11	41	6	47	135
11:30 AM	1	59	60	5	0	5	46	8	54	119
11:45 AM	1	59	60	10	0	10	53	12	65	135
Total	5	250	255	33	1	34	179	33	212	501
12:00 PM	4	62	66	3	0	3	46	5	51	120
12:15 PM	1	71	72	5	1	6	57	9	66	144
Grand Total	18	916	934	96	22	118	703	84	787	1839
Apprch %	1.9	98.1		81.4	18.6		89.3	10.7		
Total %	1	49.8	50.8	5.2	1.2	6.4	38.2	4.6	42.8	

Start Time	Singleton Road Westbound			Beckwith Avenue Northbound			Singleton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
10:30 AM	0	72	72	5	2	7	51	6	57	136
10:45 AM	2	63	65	6	4	10	57	3	60	135
11:00 AM	2	56	58	8	0	8	39	7	46	112
11:15 AM	1	76	77	10	1	11	41	6	47	135
Total Volume	5	267	272	29	7	36	188	22	210	518
% App. Total	1.8	98.2		80.6	19.4		89.5	10.5		
PHF	.625	.878	.883	.725	.438	.818	.825	.786	.875	.952



City of Calimesa  
 N/S: Beckwith Avenue  
 E/W: Singleton Road  
 Weather: Clear

File Name : 04\_CAL\_Beck\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	10:30 AM			10:00 AM			11:30 AM		
+0 mins.	0	72	72	7	2	9	46	8	54
+15 mins.	2	63	65	8	2	10	53	12	65
+30 mins.	2	56	58	5	2	7	46	5	51
+45 mins.	1	76	77	6	4	10	57	9	66
Total Volume	5	267	272	26	10	36	202	34	236
% App. Total	1.8	98.2		72.2	27.8		85.6	14.4	
PHF	.625	.878	.883	.813	.625	.900	.886	.708	.894

City of Calimesa  
 N/S: Singleton Canyon Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 05\_CAL\_SC\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

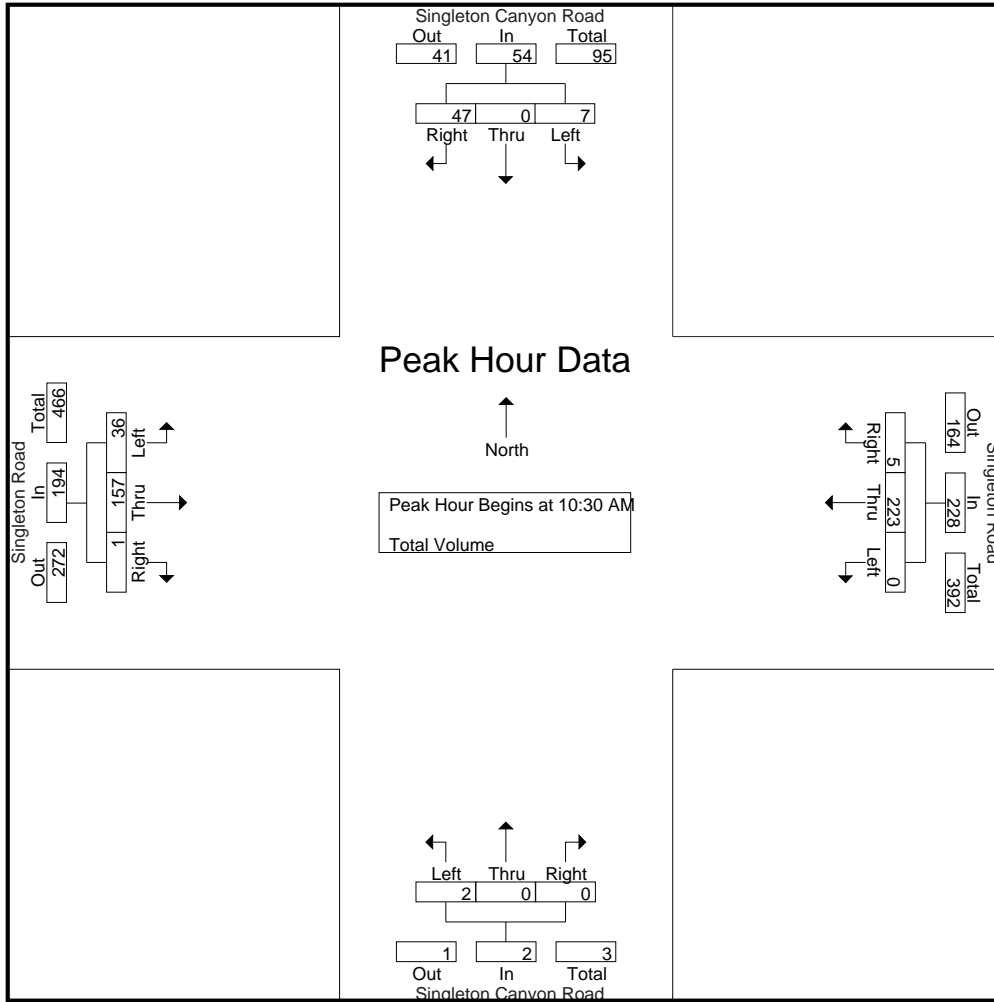
Groups Printed- Total Volume

Start Time	Singleton Canyon Road Southbound				Singleton Road Westbound				Singleton Canyon Road Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:30 AM	0	0	10	10	0	36	3	39	0	1	0	1	5	43	0	48	98
08:45 AM	5	0	16	21	0	31	0	31	0	0	0	0	3	62	1	66	118
Total	5	0	26	31	0	67	3	70	0	1	0	1	8	105	1	114	216
09:00 AM	1	0	12	13	1	27	0	28	1	0	1	2	8	38	0	46	89
09:15 AM	2	0	14	16	0	38	4	42	1	0	0	1	6	28	2	36	95
09:30 AM	0	0	15	15	0	42	1	43	2	0	0	2	8	19	0	27	87
09:45 AM	0	0	16	16	1	38	1	40	0	0	0	0	4	23	0	27	83
Total	3	0	57	60	2	145	6	153	4	0	1	5	26	108	2	136	354
10:00 AM	0	0	18	18	0	40	0	40	0	0	0	0	9	34	0	43	101
10:15 AM	0	0	9	9	0	44	0	44	0	0	0	0	6	30	0	36	89
10:30 AM	3	0	14	17	0	59	3	62	1	0	0	1	9	42	0	51	131
10:45 AM	2	0	10	12	0	52	1	53	0	0	0	0	12	45	0	57	122
Total	5	0	51	56	0	195	4	199	1	0	0	1	36	151	0	187	443
11:00 AM	1	0	10	11	0	50	0	50	0	0	0	0	6	38	0	44	105
11:15 AM	1	0	13	14	0	62	1	63	1	0	0	1	9	32	1	42	120
11:30 AM	3	0	11	14	0	46	2	48	1	0	0	1	8	39	0	47	110
11:45 AM	2	0	14	16	0	48	1	49	1	0	0	1	11	40	1	52	118
Total	7	0	48	55	0	206	4	210	3	0	0	3	34	149	2	185	453
12:00 PM	3	0	14	17	0	50	3	53	0	0	0	0	14	32	0	46	116
12:15 PM	0	0	15	15	1	56	2	59	1	0	0	1	12	44	0	56	131
Grand Total	23	0	211	234	3	719	22	744	9	1	1	11	130	589	5	724	1713
Apprch %	9.8	0	90.2		0.4	96.6	3		81.8	9.1	9.1		18	81.4	0.7		
Total %	1.3	0	12.3	13.7	0.2	42	1.3	43.4	0.5	0.1	0.1	0.6	7.6	34.4	0.3	42.3	

Start Time	Singleton Canyon Road Southbound				Singleton Road Westbound				Singleton Canyon Road Northbound				Singleton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:30 AM																	
10:30 AM	3	0	14	17	0	59	3	62	1	0	0	1	9	42	0	51	131
10:45 AM	2	0	10	12	0	52	1	53	0	0	0	0	12	45	0	57	122
11:00 AM	1	0	10	11	0	50	0	50	0	0	0	0	6	38	0	44	105
11:15 AM	1	0	13	14	0	62	1	63	1	0	0	1	9	32	1	42	120
Total Volume	7	0	47	54	0	223	5	228	2	0	0	2	36	157	1	194	478
% App. Total	13	0	87		0	97.8	2.2		100	0	0		18.6	80.9	0.5		
PHF	.583	.000	.839	.794	.000	.899	.417	.905	.500	.000	.000	.500	.750	.872	.250	.851	.912

City of Calimesa  
 N/S: Singleton Canyon Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 05\_CAL\_SC\_Sing SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:45 AM				10:30 AM				08:45 AM				11:30 AM			
+0 mins.	5	0	16	21	0	59	3	62	0	0	0	0	8	39	0	47
+15 mins.	1	0	12	13	0	52	1	53	1	0	1	2	11	40	1	52
+30 mins.	2	0	14	16	0	50	0	50	1	0	0	1	14	32	0	46
+45 mins.	0	0	15	15	0	62	1	63	2	0	0	2	12	44	0	56
Total Volume	8	0	57	65	0	223	5	228	4	0	1	5	45	155	1	201
% App. Total	12.3	0	87.7		0	97.8	2.2		80	0	20		22.4	77.1	0.5	
PHF	.400	.000	.891	.774	.000	.899	.417	.905	.500	.000	.250	.625	.804	.881	.250	.897

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Sandalewood Drive/5th Street  
 Weather: Clear

File Name : 06\_CAL\_Cali\_Sand SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

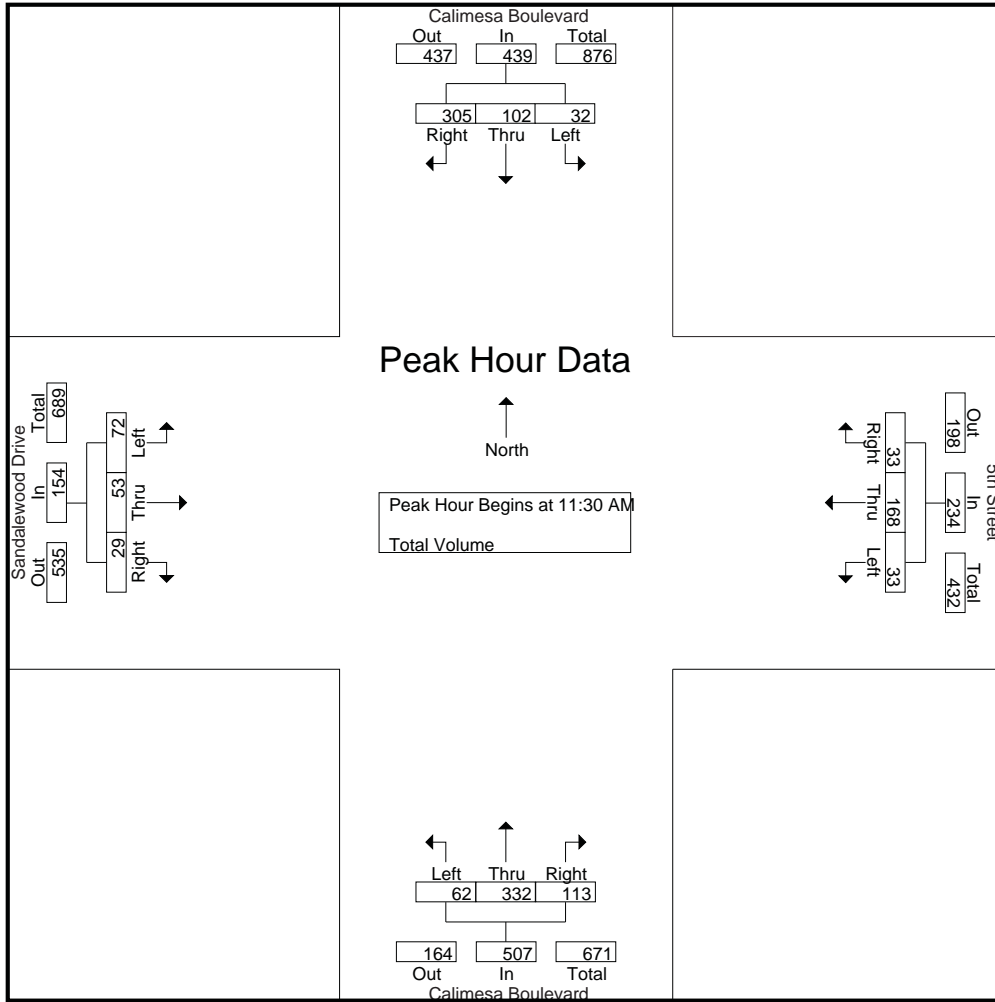
Groups Printed- Total Volume

Start Time	Calimesa Boulevard Southbound				5th Street Westbound				Calimesa Boulevard Northbound				Sandalewood Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:30 AM	5	6	42	53	3	27	5	35	19	42	22	83	14	4	3	21	192
08:45 AM	5	11	53	69	2	28	5	35	13	68	39	120	7	9	4	20	244
Total	10	17	95	122	5	55	10	70	32	110	61	203	21	13	7	41	436
09:00 AM	1	9	51	61	1	39	7	47	13	61	27	101	6	5	7	18	227
09:15 AM	3	6	60	69	1	35	14	50	16	62	34	112	14	7	8	29	260
09:30 AM	6	8	58	72	4	28	11	43	16	74	30	120	13	11	5	29	264
09:45 AM	5	17	63	85	6	28	11	45	22	61	32	115	9	8	7	24	269
Total	15	40	232	287	12	130	43	185	67	258	123	448	42	31	27	100	1020
10:00 AM	7	5	62	74	7	24	11	42	15	67	32	114	15	14	7	36	266
10:15 AM	4	13	75	92	8	45	7	60	22	85	28	135	12	16	5	33	320
10:30 AM	8	16	58	82	4	41	11	56	17	74	19	110	17	10	8	35	283
10:45 AM	6	19	80	105	10	28	11	49	20	76	26	122	14	11	5	30	306
Total	25	53	275	353	29	138	40	207	74	302	105	481	58	51	25	134	1175
11:00 AM	7	16	79	102	5	40	7	52	14	88	28	130	12	8	3	23	307
11:15 AM	2	21	76	99	2	37	9	48	14	96	22	132	23	11	8	42	321
11:30 AM	8	26	63	97	7	32	7	46	15	93	36	144	22	11	4	37	324
11:45 AM	6	23	83	112	7	27	10	44	16	78	18	112	21	16	6	43	311
Total	23	86	301	410	21	136	33	190	59	355	104	518	78	46	21	145	1263
12:00 PM	8	27	82	117	11	59	6	76	19	90	32	141	13	9	9	31	365
12:15 PM	10	26	77	113	8	50	10	68	12	71	27	110	16	17	10	43	334
Grand Total	91	249	1062	1402	86	568	142	796	263	1186	452	1901	228	167	99	494	4593
Apprch %	6.5	17.8	75.7		10.8	71.4	17.8		13.8	62.4	23.8		46.2	33.8	20		
Total %	2	5.4	23.1	30.5	1.9	12.4	3.1	17.3	5.7	25.8	9.8	41.4	5	3.6	2.2	10.8	

Start Time	Calimesa Boulevard Southbound				5th Street Westbound				Calimesa Boulevard Northbound				Sandalewood Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	8	26	63	97	7	32	7	46	15	<b>93</b>	<b>36</b>	<b>144</b>	<b>22</b>	11	4	37	324
11:45 AM	6	23	<b>83</b>	112	7	27	<b>10</b>	44	16	78	18	112	21	16	6	<b>43</b>	311
12:00 PM	8	<b>27</b>	82	<b>117</b>	<b>11</b>	<b>59</b>	6	<b>76</b>	<b>19</b>	90	32	141	13	9	9	31	<b>365</b>
12:15 PM	<b>10</b>	26	77	113	8	50	10	68	12	71	27	110	16	<b>17</b>	<b>10</b>	43	334
Total Volume	32	102	305	439	33	168	33	234	62	332	113	507	72	53	29	154	1334
% App. Total	7.3	23.2	69.5		14.1	71.8	14.1		12.2	65.5	22.3		46.8	34.4	18.8		
PHF	.800	.944	.919	.938	.750	.712	.825	.770	.816	.892	.785	.880	.818	.779	.725	.895	.914

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Sandalewood Drive/5th Street  
 Weather: Clear

File Name : 06\_CAL\_Cali\_Sand SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	11:30 AM				11:30 AM				11:15 AM				11:30 AM			
+0 mins.	8	26	63	97	7	32	7	46	14	<b>96</b>	22	132	<b>22</b>	11	4	37
+15 mins.	6	23	<b>83</b>	112	7	27	<b>10</b>	44	15	93	<b>36</b>	<b>144</b>	21	16	6	<b>43</b>
+30 mins.	8	<b>27</b>	82	<b>117</b>	<b>11</b>	<b>59</b>	6	<b>76</b>	16	78	18	112	13	9	9	31
+45 mins.	<b>10</b>	26	77	113	8	50	10	68	<b>19</b>	90	32	141	16	<b>17</b>	<b>10</b>	43
Total Volume	32	102	305	439	33	168	33	234	64	357	108	529	72	53	29	154
% App. Total	7.3	23.2	69.5		14.1	71.8	14.1		12.1	67.5	20.4		46.8	34.4	18.8	
PHF	.800	.944	.919	.938	.750	.712	.825	.770	.842	.930	.750	.918	.818	.779	.725	.895

City of Calimesa  
 N/S: Roberts Road  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 07\_CAL\_Rob\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

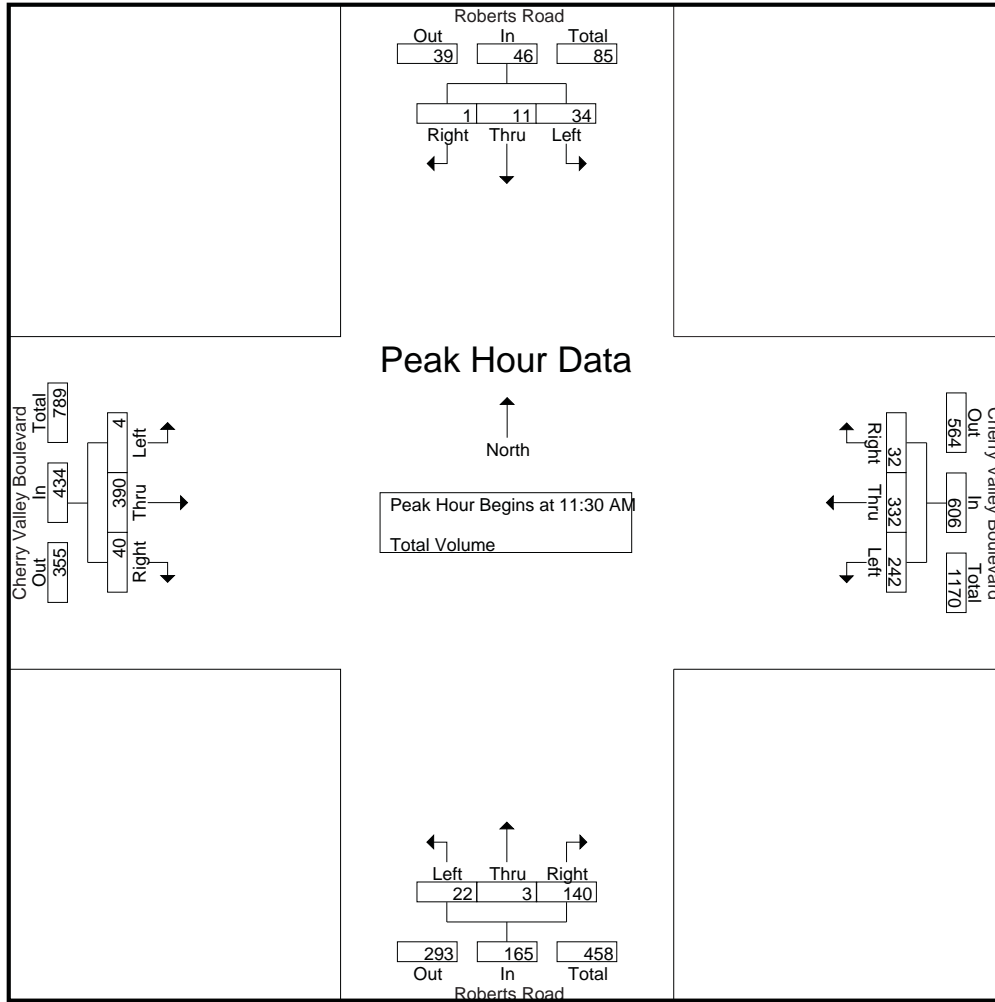
Groups Printed- Total Volume

Start Time	Roberts Road Southbound				Cherry Valley Boulevard Westbound				Roberts Road Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:30 AM	9	0	0	9	27	31	2	60	3	0	10	13	0	88	3	91	173
08:45 AM	10	3	0	13	33	38	4	75	3	0	24	27	1	89	6	96	211
Total	19	3	0	22	60	69	6	135	6	0	34	40	1	177	9	187	384
09:00 AM	5	0	0	5	23	32	3	58	5	0	28	33	2	70	5	77	173
09:15 AM	7	1	0	8	22	49	3	74	7	1	17	25	0	92	7	99	206
09:30 AM	12	3	1	16	40	42	10	92	4	3	31	38	1	107	9	117	263
09:45 AM	11	3	0	14	38	45	7	90	3	1	24	28	0	89	8	97	229
Total	35	7	1	43	123	168	23	314	19	5	100	124	3	358	29	390	871
10:00 AM	11	3	0	14	40	61	5	106	3	3	30	36	0	110	8	118	274
10:15 AM	12	0	1	13	40	52	6	98	5	1	31	37	1	113	4	118	266
10:30 AM	17	3	0	20	36	73	4	113	3	2	29	34	1	135	10	146	313
10:45 AM	14	2	0	16	57	59	8	124	1	3	31	35	0	119	9	128	303
Total	54	8	1	63	173	245	23	441	12	9	121	142	2	477	31	510	1156
11:00 AM	8	3	0	11	52	64	6	122	7	2	31	40	0	109	7	116	289
11:15 AM	8	1	1	10	51	72	15	138	4	1	34	39	1	121	7	129	316
11:30 AM	10	2	0	12	42	86	7	135	7	1	33	41	1	80	8	89	277
11:45 AM	9	2	0	11	73	81	10	164	5	1	34	40	0	102	15	117	332
Total	35	8	1	44	218	303	38	559	23	5	132	160	2	412	37	451	1214
12:00 PM	9	3	0	12	66	76	8	150	5	1	36	42	1	106	8	115	319
12:15 PM	6	4	1	11	61	89	7	157	5	0	37	42	2	102	9	113	323
Grand Total	158	33	4	195	701	950	105	1756	70	20	460	550	11	1632	123	1766	4267
Apprch %	81	16.9	2.1		39.9	54.1	6		12.7	3.6	83.6		0.6	92.4	7		
Total %	3.7	0.8	0.1	4.6	16.4	22.3	2.5	41.2	1.6	0.5	10.8	12.9	0.3	38.2	2.9	41.4	

Start Time	Roberts Road Southbound				Cherry Valley Boulevard Westbound				Roberts Road Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	10	2	0	12	42	86	7	135	7	1	33	41	1	80	8	89	277
11:45 AM	9	2	0	11	73	81	10	164	5	1	34	40	0	102	15	117	332
12:00 PM	9	3	0	12	66	76	8	150	5	1	36	42	1	106	8	115	319
12:15 PM	6	4	1	11	61	89	7	157	5	0	37	42	2	102	9	113	323
Total Volume	34	11	1	46	242	332	32	606	22	3	140	165	4	390	40	434	1251
% App. Total	73.9	23.9	2.2		39.9	54.8	5.3		13.3	1.8	84.8		0.9	89.9	9.2		
PHF	.850	.688	.250	.958	.829	.933	.800	.924	.786	.750	.946	.982	.500	.920	.667	.927	.942

City of Calimesa  
 N/S: Roberts Road  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 07\_CAL\_Rob\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	10:00 AM				11:30 AM				11:30 AM				10:30 AM			
+0 mins.	11	3	0	14	42	86	7	135	7	1	33	41	1	135	10	146
+15 mins.	12	0	1	13	73	81	10	164	5	1	34	40	0	119	9	128
+30 mins.	17	3	0	20	66	76	8	150	5	1	36	42	0	109	7	116
+45 mins.	14	2	0	16	61	89	7	157	5	0	37	42	1	121	7	129
Total Volume	54	8	1	63	242	332	32	606	22	3	140	165	2	484	33	519
% App. Total	85.7	12.7	1.6		39.9	54.8	5.3		13.3	1.8	84.8		0.4	93.3	6.4	
PHF	.794	.667	.250	.788	.829	.933	.800	.924	.786	.750	.946	.982	.500	.896	.825	.889

City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 08\_CAL\_10E\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

Groups Printed- Total Volume

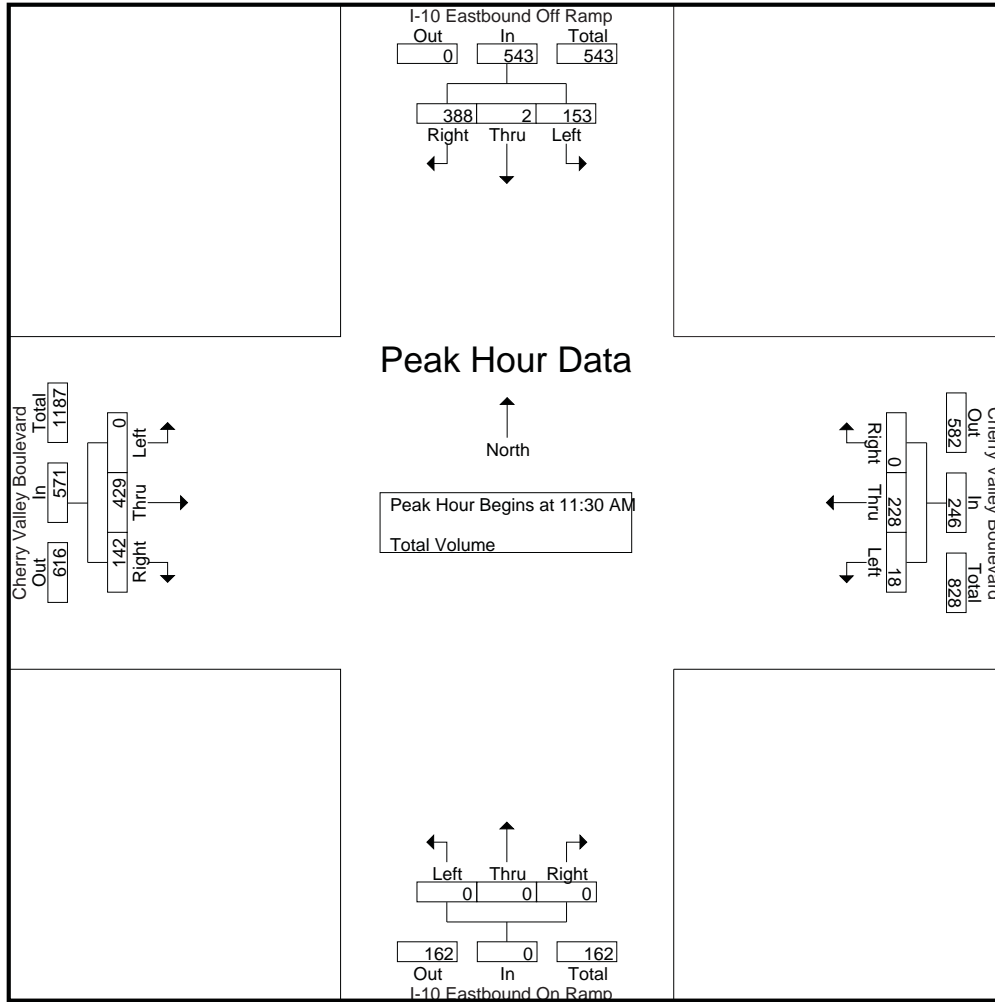
Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:30 AM	24	0	39	63	5	23	0	28	0	0	0	0	0	87	20	107	198
08:45 AM	20	1	50	71	2	29	0	31	0	0	0	0	0	112	15	127	229
Total	44	1	89	134	7	52	0	59	0	0	0	0	0	199	35	234	427
09:00 AM	10	0	33	43	3	22	0	25	0	0	0	0	0	86	20	106	174
09:15 AM	19	0	49	68	8	27	0	35	0	0	0	0	0	102	15	117	220
09:30 AM	23	0	59	82	2	31	0	33	0	0	0	0	0	125	25	150	265
09:45 AM	34	0	62	96	4	26	0	30	0	0	0	0	0	104	28	132	258
Total	86	0	203	289	17	106	0	123	0	0	0	0	0	417	88	505	917
10:00 AM	34	0	73	107	4	39	0	43	0	0	0	0	0	129	30	159	309
10:15 AM	39	0	58	97	7	39	0	46	0	0	0	0	0	127	28	155	298
10:30 AM	25	0	74	99	4	30	0	34	0	0	0	0	0	146	38	184	317
10:45 AM	29	0	80	109	8	44	0	52	0	0	0	0	0	122	43	165	326
Total	127	0	285	412	23	152	0	175	0	0	0	0	0	524	139	663	1250
11:00 AM	37	1	82	120	3	37	0	40	0	0	0	0	0	116	38	154	314
11:15 AM	37	1	95	133	1	44	0	45	0	0	0	0	0	129	33	162	340
11:30 AM	41	1	90	132	3	46	0	49	0	0	0	0	0	93	33	126	307
11:45 AM	42	1	90	133	6	71	0	77	0	0	0	0	0	120	25	145	355
Total	157	4	357	518	13	198	0	211	0	0	0	0	0	458	129	587	1316
12:00 PM	40	0	101	141	3	57	0	60	0	0	0	0	0	111	41	152	353
12:15 PM	30	0	107	137	6	54	0	60	0	0	0	0	0	105	43	148	345
Grand Total	484	5	1142	1631	69	619	0	688	0	0	0	0	0	1814	475	2289	4608
Apprch %	29.7	0.3	70		10	90	0		0	0	0		0	79.2	20.8		
Total %	10.5	0.1	24.8	35.4	1.5	13.4	0	14.9	0	0	0	0	0	39.4	10.3	49.7	

Start Time	I-10 Eastbound Off Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Eastbound On Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
11:30 AM	41	<b>1</b>	90	132	3	46	0	49	0	0	0	0	0	93	33	126	307
11:45 AM	<b>42</b>	1	90	133	<b>6</b>	<b>71</b>	0	<b>77</b>	0	0	0	0	0	<b>120</b>	25	145	<b>355</b>
12:00 PM	40	0	101	<b>141</b>	3	57	0	60	0	0	0	0	0	111	41	<b>152</b>	353
12:15 PM	30	0	<b>107</b>	137	6	54	0	60	0	0	0	0	0	105	<b>43</b>	148	345
Total Volume	153	2	388	543	18	228	0	246	0	0	0	0	0	429	142	571	1360
% App. Total	28.2	0.4	71.5		7.3	92.7	0		0	0	0		0	75.1	24.9		
PHF	.911	.500	.907	.963	.750	.803	.000	.799	.000	.000	.000	.000	.000	.894	.826	.939	.958



City of Calimesa  
 N/S: I-10 Eastbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 08\_CAL\_10E\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	11:30 AM				11:30 AM				08:30 AM				10:30 AM			
+0 mins.	41	1	90	132	3	46	0	49	0	0	0	0	0	146	38	184
+15 mins.	42	1	90	133	6	71	0	77	0	0	0	0	0	122	43	165
+30 mins.	40	0	101	141	3	57	0	60	0	0	0	0	0	116	38	154
+45 mins.	30	0	107	137	6	54	0	60	0	0	0	0	0	129	33	162
Total Volume	153	2	388	543	18	228	0	246	0	0	0	0	0	513	152	665
% App. Total	28.2	0.4	71.5		7.3	92.7	0		0	0	0	0	0	77.1	22.9	
PHF	.911	.500	.907	.963	.750	.803	.000	.799	.000	.000	.000	.000	.000	.878	.884	.904

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 09\_CAL\_10W\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

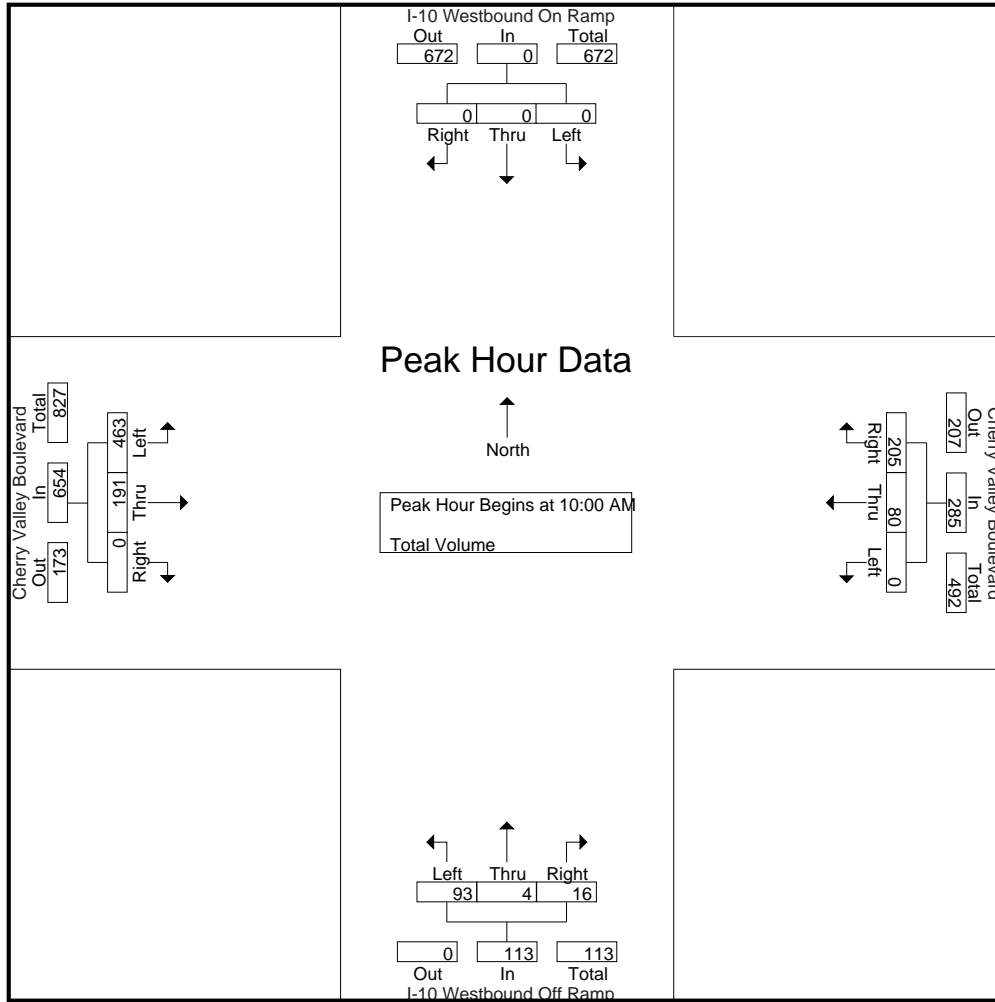
Groups Printed- Total Volume

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:30 AM	0	0	0	0	0	12	50	62	16	0	4	20	73	35	0	108	190
08:45 AM	0	0	0	0	0	14	35	49	17	0	1	18	104	34	0	138	205
Total	0	0	0	0	0	26	85	111	33	0	5	38	177	69	0	246	395
09:00 AM	0	0	0	0	0	15	35	50	12	1	2	15	71	26	0	97	162
09:15 AM	0	0	0	0	0	19	53	72	15	0	4	19	82	34	0	116	207
09:30 AM	0	0	0	0	0	12	51	63	21	1	6	28	110	39	0	149	240
09:45 AM	0	0	0	0	0	12	36	48	19	2	2	23	93	44	0	137	208
Total	0	0	0	0	0	58	175	233	67	4	14	85	356	143	0	499	817
10:00 AM	0	0	0	0	0	23	48	71	19	1	8	28	116	47	0	163	262
10:15 AM	0	0	0	0	0	24	52	76	23	2	2	27	107	56	0	163	266
10:30 AM	0	0	0	0	0	14	50	64	22	0	2	24	129	45	0	174	262
10:45 AM	0	0	0	0	0	19	55	74	29	1	4	34	111	43	0	154	262
Total	0	0	0	0	0	80	205	285	93	4	16	113	463	191	0	654	1052
11:00 AM	0	0	0	0	0	12	39	51	29	2	2	33	97	52	0	149	233
11:15 AM	0	0	0	0	0	14	46	60	31	2	2	35	114	53	0	167	262
11:30 AM	0	0	0	0	0	25	38	63	25	1	3	29	80	53	0	133	225
11:45 AM	0	0	0	0	0	32	32	64	43	1	4	48	93	67	0	160	272
Total	0	0	0	0	0	83	155	238	128	6	11	145	384	225	0	609	992
12:00 PM	0	0	0	0	0	29	48	77	33	0	3	36	94	54	0	148	261
12:15 PM	0	0	0	0	0	22	52	74	41	0	8	49	88	50	0	138	261
Grand Total	0	0	0	0	0	298	720	1018	395	14	57	466	1562	732	0	2294	3778
Apprch %	0	0	0		0	29.3	70.7		84.8	3	12.2		68.1	31.9	0		
Total %	0	0	0		0	7.9	19.1	26.9	10.5	0.4	1.5	12.3	41.3	19.4	0	60.7	

Start Time	I-10 Westbound On Ramp Southbound				Cherry Valley Boulevard Westbound				I-10 Westbound Off Ramp Northbound				Cherry Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:00 AM																	
10:00 AM	0	0	0	0	0	23	48	71	19	1	<b>8</b>	28	116	47	0	163	262
10:15 AM	0	0	0	0	0	<b>24</b>	52	<b>76</b>	23	<b>2</b>	2	27	107	<b>56</b>	0	163	<b>266</b>
10:30 AM	0	0	0	0	0	14	50	64	22	0	2	24	<b>129</b>	45	0	<b>174</b>	262
10:45 AM	0	0	0	0	0	19	<b>55</b>	74	<b>29</b>	1	4	<b>34</b>	111	43	0	154	262
Total Volume	0	0	0	0	0	80	205	285	93	4	16	113	463	191	0	654	1052
% App. Total	0	0	0		0	28.1	71.9		82.3	3.5	14.2		70.8	29.2	0		
PHF	.000	.000	.000	.000	.000	.833	.932	.938	.802	.500	.500	.831	.897	.853	.000	.940	.989

City of Calimesa  
 N/S: I-10 Westbound Ramps  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 09\_CAL\_10W\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:30 AM				10:00 AM				11:30 AM				10:00 AM			
+0 mins.	0	0	0	0	0	23	48	71	25	1	3	29	116	47	0	163
+15 mins.	0	0	0	0	0	<b>24</b>	52	<b>76</b>	<b>43</b>	1	4	48	107	<b>56</b>	0	163
+30 mins.	0	0	0	0	0	14	50	64	33	0	3	36	<b>129</b>	45	0	<b>174</b>
+45 mins.	0	0	0	0	0	19	<b>55</b>	74	41	0	<b>8</b>	<b>49</b>	111	43	0	154
Total Volume	0	0	0	0	0	80	205	285	142	2	18	162	463	191	0	654
% App. Total	0	0	0	0	0	28.1	71.9		87.7	1.2	11.1		70.8	29.2	0	
PHF	.000	.000	.000	.000	.000	.833	.932	.938	.826	.500	.563	.827	.897	.853	.000	.940

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 10\_CAL\_Cali\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

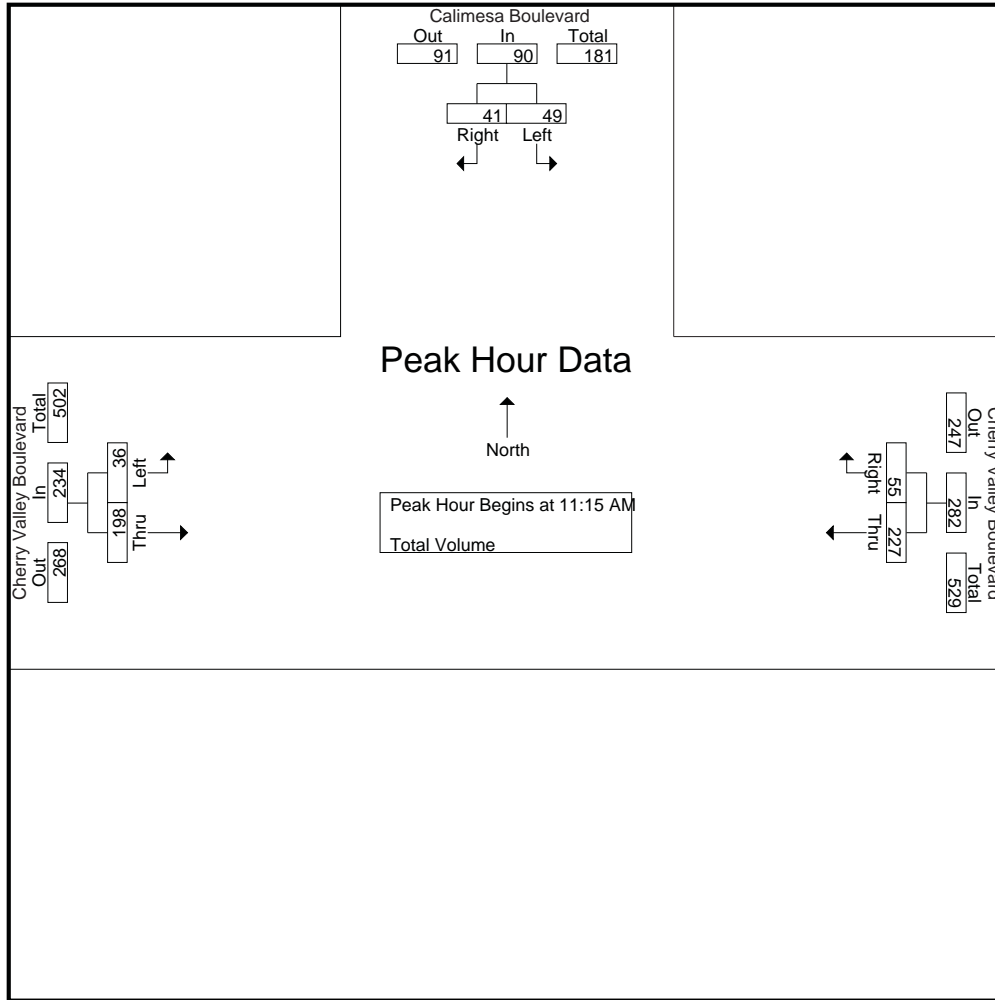
Groups Printed- Total Volume

Start Time	Calimesa Boulevard Southbound			Cherry Valley Boulevard Westbound			Cherry Valley Boulevard Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
08:30 AM	4	2	6	60	11	71	7	29	36	113
08:45 AM	3	6	9	44	12	56	8	25	33	98
Total	7	8	15	104	23	127	15	54	69	211
09:00 AM	2	4	6	45	6	51	6	20	26	83
09:15 AM	10	4	14	63	7	70	3	28	31	115
09:30 AM	4	3	7	59	10	69	4	39	43	119
09:45 AM	7	7	14	41	8	49	4	38	42	105
Total	23	18	41	208	31	239	17	125	142	422
10:00 AM	11	8	19	66	7	73	6	48	54	146
10:15 AM	6	11	17	63	7	70	3	54	57	144
10:30 AM	10	5	15	59	6	65	8	38	46	126
10:45 AM	8	7	15	67	8	75	4	41	45	135
Total	35	31	66	255	28	283	21	181	202	551
11:00 AM	10	5	15	46	7	53	8	46	54	122
11:15 AM	13	7	20	53	16	69	8	47	55	144
11:30 AM	17	8	25	58	10	68	10	44	54	147
11:45 AM	12	18	30	47	14	61	11	58	69	160
Total	52	38	90	204	47	251	37	195	232	573
12:00 PM	7	8	15	69	15	84	7	49	56	155
12:15 PM	6	13	19	60	6	66	9	47	56	141
Grand Total	130	116	246	900	150	1050	106	651	757	2053
Apprch %	52.8	47.2		85.7	14.3		14	86		
Total %	6.3	5.7	12	43.8	7.3	51.1	5.2	31.7	36.9	

Start Time	Calimesa Boulevard Southbound			Cherry Valley Boulevard Westbound			Cherry Valley Boulevard Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:15 AM										
11:15 AM	13	7	20	53	<b>16</b>	69	8	47	55	144
11:30 AM	<b>17</b>	8	25	58	10	68	10	44	54	147
11:45 AM	12	<b>18</b>	<b>30</b>	47	14	61	<b>11</b>	<b>58</b>	<b>69</b>	<b>160</b>
12:00 PM	7	8	15	<b>69</b>	15	<b>84</b>	7	49	56	155
Total Volume	49	41	90	227	55	282	36	198	234	606
% App. Total	54.4	45.6		80.5	19.5		15.4	84.6		
PHF	.721	.569	.750	.822	.859	.839	.818	.853	.848	.947

City of Calimesa  
 N/S: Calimesa Boulevard  
 E/W: Cherry Valley Boulevard  
 Weather: Clear

File Name : 10\_CAL\_Cali\_Cherry SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	11:00 AM			10:00 AM			11:30 AM		
+0 mins.	10	5	15	66	7	73	10	44	54
+15 mins.	13	7	20	63	7	70	11	58	69
+30 mins.	17	8	25	59	6	65	7	49	56
+45 mins.	12	18	30	67	8	75	9	47	56
Total Volume	52	38	90	255	28	283	37	198	235
% App. Total	57.8	42.2		90.1	9.9		15.7	84.3	
PHF	.765	.528	.750	.951	.875	.943	.841	.853	.851

City of Calimesa  
 N/S: I-10 WB Off Ramp/Calimesa Boulevard  
 E/W: Calimesa Boulevard  
 Weather: Clear

File Name : 11\_CAL\_10W\_Cali SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 1

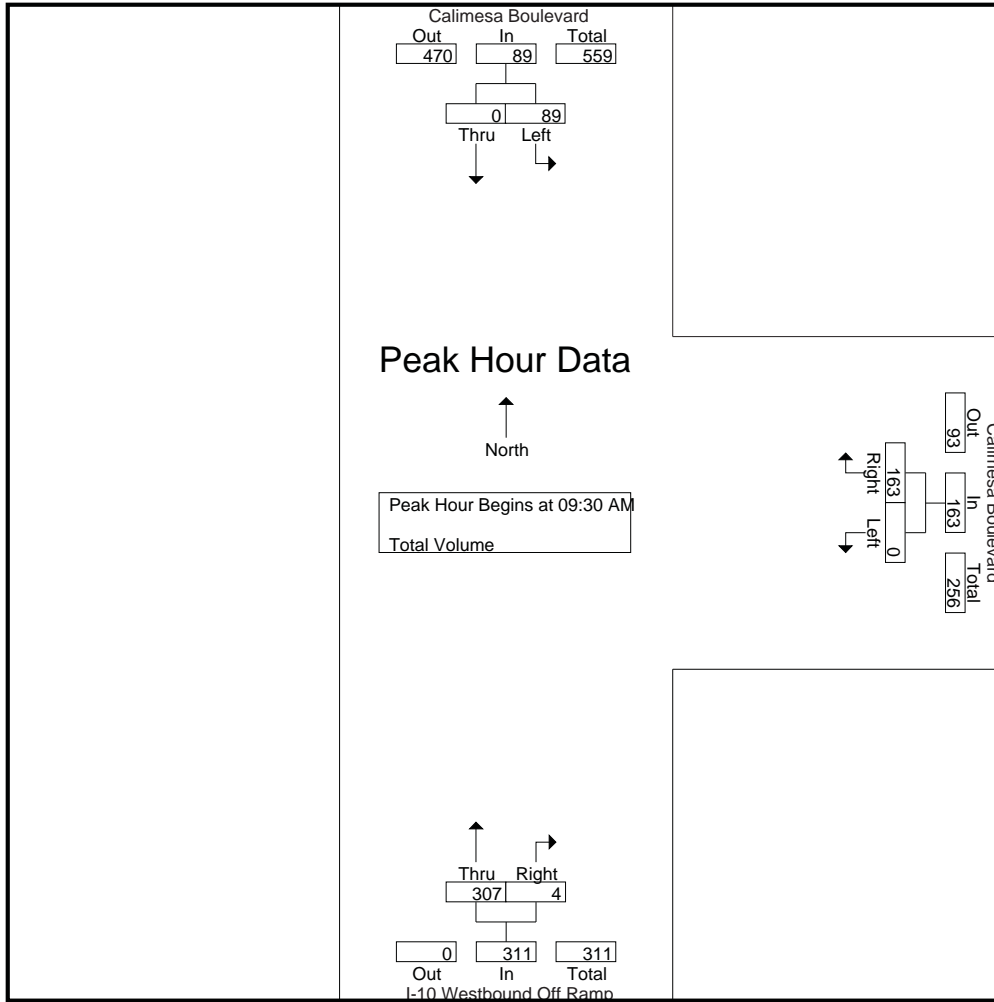
Groups Printed- Total Volume

Start Time	Calimesa Boulevard Southbound			Calimesa Boulevard Westbound			I-10 Westbound Off Ramp Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:30 AM	10	0	10	0	36	36	51	0	51	97
08:45 AM	19	0	19	0	34	34	83	0	83	136
Total	29	0	29	0	70	70	134	0	134	233
09:00 AM	18	0	18	0	27	27	77	1	78	123
09:15 AM	15	0	15	0	35	35	75	0	75	125
09:30 AM	15	0	15	0	45	45	78	1	79	139
09:45 AM	31	0	31	0	48	48	65	2	67	146
Total	79	0	79	0	155	155	295	4	299	533
10:00 AM	18	0	18	0	27	27	76	0	76	121
10:15 AM	25	0	25	0	43	43	88	1	89	157
10:30 AM	28	0	28	0	42	42	71	1	72	142
10:45 AM	34	0	34	0	42	42	76	0	76	152
Total	105	0	105	0	154	154	311	2	313	572
11:00 AM	24	0	24	0	35	35	97	0	97	156
11:15 AM	28	0	28	0	50	50	82	0	82	160
11:30 AM	37	0	37	0	60	60	85	1	86	183
11:45 AM	48	0	48	0	43	43	67	0	67	158
Total	137	0	137	0	188	188	331	1	332	657
12:00 PM	42	0	42	0	47	47	95	0	95	184
12:15 PM	44	0	44	0	34	34	80	0	80	158
Grand Total	436	0	436	0	648	648	1246	7	1253	2337
Apprch %	100	0		0	100		99.4	0.6		
Total %	18.7	0	18.7	0	27.7	27.7	53.3	0.3	53.6	

Start Time	Calimesa Boulevard Southbound			Calimesa Boulevard Westbound			I-10 Westbound Off Ramp Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 09:30 AM										
09:30 AM	15	0	15	0	45	45	78	1	79	139
09:45 AM	<b>31</b>	0	<b>31</b>	0	<b>48</b>	<b>48</b>	65	<b>2</b>	67	146
10:00 AM	18	0	18	0	27	27	76	0	76	121
10:15 AM	25	0	25	0	43	43	<b>88</b>	1	<b>89</b>	<b>157</b>
Total Volume	89	0	89	0	163	163	307	4	311	563
% App. Total	100	0		0	100		98.7	1.3		
PHF	.718	.000	.718	.000	.849	.849	.872	.500	.874	.896

City of Calimesa  
 N/S: I-10 WB Off Ramp/Calimesa Boulevard  
 E/W: Calimesa Boulevard  
 Weather: Clear

File Name : 11\_CAL\_10W\_Cali SUN  
 Site Code : 05122490  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	09:30 AM			09:30 AM			08:45 AM		
+0 mins.	15	0	15	0	45	45	83	0	83
+15 mins.	31	0	31	0	48	48	77	1	78
+30 mins.	18	0	18	0	27	27	75	0	75
+45 mins.	25	0	25	0	43	43	78	1	79
Total Volume	89	0	89	0	163	163	313	2	315
% App. Total	100	0		0	100		99.4	0.6	
PHF	.718	.000	.718	.000	.849	.849	.943	.500	.949

Calimesa Bl. (N/S) & I-10 WB Off-Ramp (E/W)

City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 12\_CAL\_Rob\_Sing SUN  
 Site Code : 99915000  
 Start Date : 5/22/2022  
 Page No : 1

Groups Printed- Total Volume

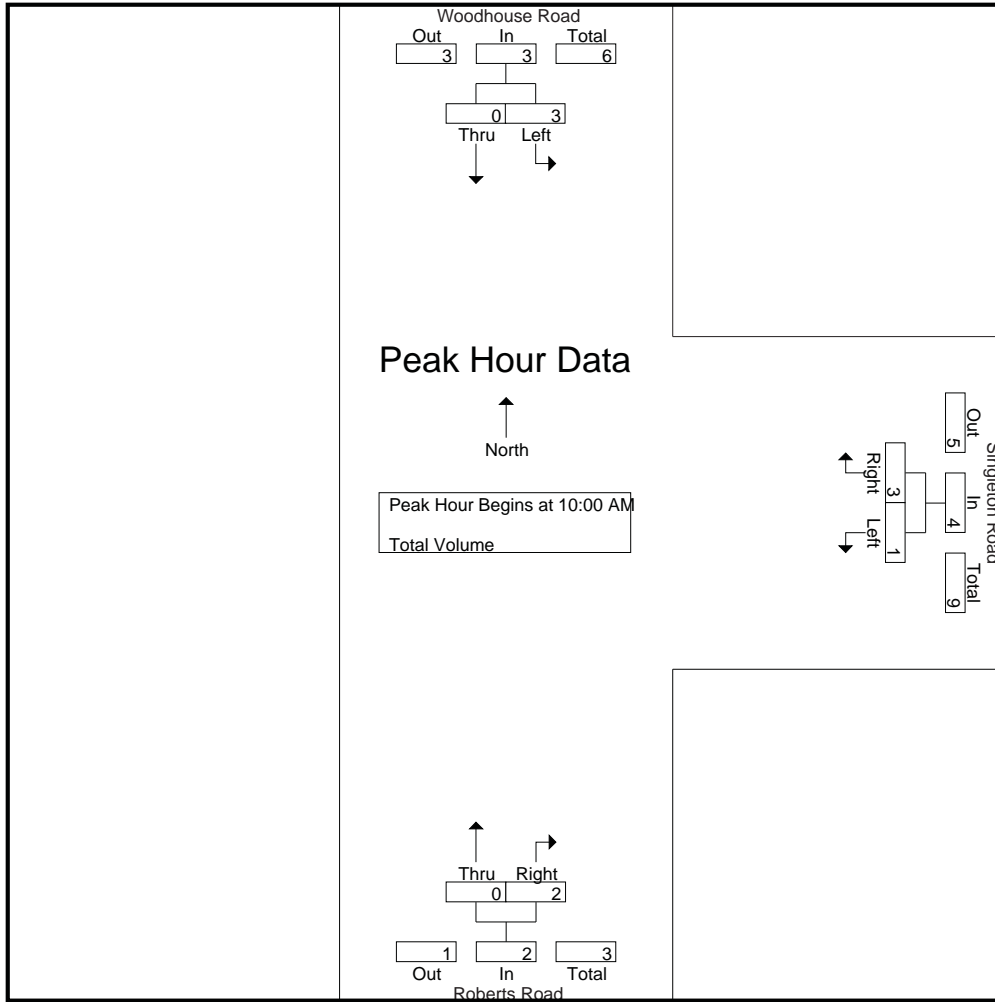
Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	0	0	1	0	1	0	0	0	1
09:00 AM	0	0	0	1	0	1	0	0	0	1
09:15 AM	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1
10:00 AM	3	0	3	0	3	3	0	0	0	6
10:15 AM	0	0	0	0	0	0	0	1	1	1
10:30 AM	0	0	0	1	0	1	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	1	1	1
Total	3	0	3	1	3	4	0	2	2	9
11:00 AM	0	1	1	0	1	1	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	1	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	1	1	1	1	2	0	1	1	4
12:00 PM	0	0	0	0	0	0	0	1	1	1
12:15 PM	0	0	0	0	1	1	0	1	1	2
Grand Total	3	1	4	4	5	9	0	5	5	18
Apprch %	75	25		44.4	55.6		0	100		
Total %	16.7	5.6	22.2	22.2	27.8	50	0	27.8	27.8	

Start Time	Woodhouse Road Southbound			Singleton Road Westbound			Roberts Road Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 10:00 AM										
10:00 AM	3	0	3	0	3	3	0	0	0	6
10:15 AM	0	0	0	0	0	0	0	1	1	1
10:30 AM	0	0	0	1	0	1	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	3	0	3	1	3	4	0	2	2	9
% App. Total	100	0		25	75		0	100		
PHF	.250	.000	.250	.250	.250	.333	.000	.500	.500	.375



City of Calimesa  
 N/S: Woodhouse Road/Roberts Road  
 E/W: Singleton Road  
 Weather: Clear

File Name : 12\_CAL\_Rob\_Sing SUN  
 Site Code : 99915000  
 Start Date : 5/22/2022  
 Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

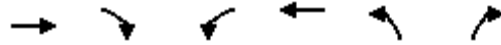
	09:15 AM			09:45 AM			10:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	3	3	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	3	0	3	1	0	1	0	1	1
Total Volume	3	0	3	1	3	4	0	2	2
% App. Total	100	0		25	75		0	100	
PHF	.250	.000	.250	.250	.250	.333	.000	.500	.500

**APPENDIX 3.2: EXISTING (2022) CONDITIONS INTERSECTION  
OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Lanes, Volumes, Timings  
 1: I-10 EB On-Ramp & Singleton Rd.

01 - Existing (2022) AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		
Traffic Volume (vph)	6	2	319	6	0	0
Future Volume (vph)	6	2	319	6	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	70		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)			60		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	617			647	1041	
Travel Time (s)	12.0			12.6	23.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Lanes, Volumes, Timings  
 2: I-10 WB Off-Ramp & Singleton Rd.

01 - Existing (2022) AM Peak Hour

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	6	0	0	323	2	193
Future Volume (vph)	6	0	0	323	2	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	50
Storage Lanes		0	0		0	1
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	647			193	1033	
Travel Time (s)	12.6			3.8	23.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					

HCM 6th TWSC  
 2: I-10 WB Off-Ramp & Singleton Rd.

01 - Existing (2022) AM Peak Hour

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	6	0	0	323	2	193
Future Vol, veh/h	6	0	0	323	2	193
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	0	0	347	2	208





















Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	353 6
Stage 1	-	-	-	-	6 -
Stage 2	-	-	-	-	347 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	645 1077
Stage 1	-	0	0	-	1017 -
Stage 2	-	0	0	-	716 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	645 1077
Mov Cap-2 Maneuver	-	-	-	-	645 -
Stage 1	-	-	-	-	1017 -
Stage 2	-	-	-	-	716 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBT
Capacity (veh/h)	645	1077	-	-
HCM Lane V/C Ratio	0.003	0.193	-	-
HCM Control Delay (s)	10.6	9.1	-	-
HCM Lane LOS	B	A	-	-
HCM 95th %tile Q(veh)	0	0.7	-	-

Lanes, Volumes, Timings  
 3: Calimesa Bl. & Singleton Rd.

01 - Existing (2022) AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	151	1	22	301	141	1	227	125	60	18	21
Future Volume (vph)	47	151	1	22	301	141	1	227	125	60	18	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	150		50	150		50	150		50
Storage Lanes	0		1	0		1	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		193			651			430			987	
Travel Time (s)		3.8			12.7			8.4			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗		↖	↗		↔	
Traffic Vol, veh/h	47	151	1	22	301	141	1	227	125	60	18	21
Future Vol, veh/h	47	151	1	22	301	141	1	227	125	60	18	21
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	162	1	24	324	152	1	244	134	65	19	23
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	14.9	17.2	14	12.7
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	24%	0%	7%	0%	61%
Vol Thru, %	100%	0%	76%	0%	93%	0%	18%
Vol Right, %	0%	100%	0%	100%	0%	100%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	228	125	198	1	323	141	99
LT Vol	1	0	47	0	22	0	60
Through Vol	227	0	151	0	301	0	18
RT Vol	0	125	0	1	0	141	21
Lane Flow Rate	245	134	213	1	347	152	106
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.472	0.232	0.42	0.002	0.637	0.242	0.221
Departure Headway (Hd)	6.926	6.211	7.103	6.264	6.604	5.873	7.487
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	522	581	507	572	549	616	480
Service Time	4.641	3.926	4.837	3.999	4.322	3.573	5.529
HCM Lane V/C Ratio	0.469	0.231	0.42	0.002	0.632	0.247	0.221
HCM Control Delay	15.7	10.8	14.9	9	20.2	10.4	12.7
HCM Lane LOS	C	B	B	A	C	B	B
HCM 95th-tile Q	2.5	0.9	2.1	0	4.5	0.9	0.8



Lanes, Volumes, Timings  
4: Beckwith Av. & Singleton Rd.

01 - Existing (2022) AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	297	11	3	469	20	2
Future Volume (vph)	297	11	3	469	20	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	7.9			33.2	7.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	297	11	3	469	20	2
Future Vol, veh/h	297	11	3	469	20	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	303	11	3	479	20	2























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	314	0	794 309
Stage 1	-	-	-	-	309 -
Stage 2	-	-	-	-	485 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1246	-	357 731
Stage 1	-	-	-	-	745 -
Stage 2	-	-	-	-	619 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1246	-	356 731
Mov Cap-2 Maneuver	-	-	-	-	356 -
Stage 1	-	-	-	-	745 -
Stage 2	-	-	-	-	618 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	373	-	-	1246	-
HCM Lane V/C Ratio	0.06	-	-	0.002	-
HCM Control Delay (s)	15.3	-	-	7.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings  
 5: Singleton Cyn. Rd. & Singleton Rd.

01 - Existing (2022) AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	32	290	4	1	344	12	7	1	1	20	1	102
Future Volume (vph)	32	290	4	1	344	12	7	1	1	20	1	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		15.0			14.2			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕		↕↗	↕
Traffic Vol, veh/h	32	290	4	1	344	12	7	1	1	20	1	102
Future Vol, veh/h	32	290	4	1	344	12	7	1	1	20	1	102
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	305	4	1	362	13	7	1	1	21	1	107
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	10.7	11.3	10	9.8
HCM LOS	B	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	88%	0%	100%	0%	0%	100%	0%	0%	95%	0%
Vol Thru, %	12%	0%	0%	100%	96%	0%	100%	91%	5%	0%
Vol Right, %	0%	100%	0%	0%	4%	0%	0%	9%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	1	32	193	101	1	229	127	21	102
LT Vol	7	0	32	0	0	1	0	0	20	0
Through Vol	1	0	0	193	97	0	229	115	1	0
RT Vol	0	1	0	0	4	0	0	12	0	102
Lane Flow Rate	8	1	34	204	106	1	241	133	22	107
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.017	0.002	0.059	0.33	0.171	0.002	0.388	0.212	0.043	0.174
Departure Headway (Hd)	7.27	6.129	6.349	5.846	5.818	6.288	5.785	5.719	6.997	5.82
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	584	565	617	618	570	623	629	513	617
Service Time	5.01	3.868	4.074	3.571	3.543	4.011	3.508	3.442	4.728	3.551
HCM Lane V/C Ratio	0.016	0.002	0.06	0.331	0.172	0.002	0.387	0.211	0.043	0.173
HCM Control Delay	10.1	8.9	9.5	11.4	9.7	9	12.1	10	10	9.8
HCM Lane LOS	B	A	A	B	A	A	B	A	A	A
HCM 95th-tile Q	0.1	0	0.2	1.4	0.6	0	1.8	0.8	0.1	0.6

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

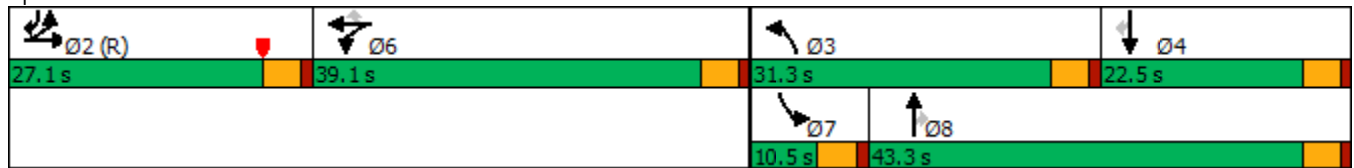
01 - Existing (2022) AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	171	40	16	300	19	210	408	153	22	23	290
Future Volume (vph)	123	171	40	16	300	19	210	408	153	22	23	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			17.2			5.7			14.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)	11%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1		39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%		32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Maximum Green (s)	22.6	22.6		34.6	34.6	34.6	26.8	38.8	38.8	6.0	18.0	22.6
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	5	5		5	5	5		5	5		5	5

Intersection Summary
























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

01 - Existing (2022) AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	171	40	16	300	19	210	408	153	22	23	290
Future Volume (veh/h)	123	171	40	16	300	19	210	408	153	22	23	290
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	131	221	47	19	353	22	247	480	180	26	27	341
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	514	866	181	381	400	339	278	1149	512	43	358	761
Arrive On Green	0.29	0.29	0.29	0.21	0.21	0.21	0.16	0.32	0.32	0.02	0.19	0.19
Sat Flow, veh/h	1781	3002	626	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	131	136	132	19	353	22	247	480	180	26	27	341
Grp Sat Flow(s),veh/h/ln	1781	1870	1758	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	6.8	6.7	6.9	1.0	21.9	1.3	16.3	12.7	10.4	1.7	1.4	17.1
Cycle Q Clear(g_c), s	6.8	6.7	6.9	1.0	21.9	1.3	16.3	12.7	10.4	1.7	1.4	17.1
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	514	540	507	381	400	339	278	1149	512	43	358	761
V/C Ratio(X)	0.25	0.25	0.26	0.05	0.88	0.06	0.89	0.42	0.35	0.60	0.08	0.45
Avail Cap(c_a), veh/h	514	540	507	514	539	457	398	1149	512	89	358	761
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	32.8	32.7	32.8	37.5	45.7	37.6	49.6	31.8	31.0	58.0	39.8	20.7
Incr Delay (d2), s/veh	1.2	1.1	1.2	0.1	12.5	0.1	15.8	1.1	1.9	12.9	0.4	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	3.1	3.2	3.1	0.5	11.6	0.5	8.4	5.6	4.2	0.9	0.7	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	33.9	34.1	37.5	58.2	37.7	65.4	32.9	32.9	70.9	40.2	22.6
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	C
Approach Vol, veh/h		399			394			907			394	
Approach Delay, s/veh		34.0			56.1			41.7			27.0	
Approach LOS		C			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.1	23.2	27.5		30.2	7.4	43.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		8.9	18.3	19.1		23.9	3.7	14.7				
Green Ext Time (p_c), s		1.6	0.4	0.0		1.7	0.0	3.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

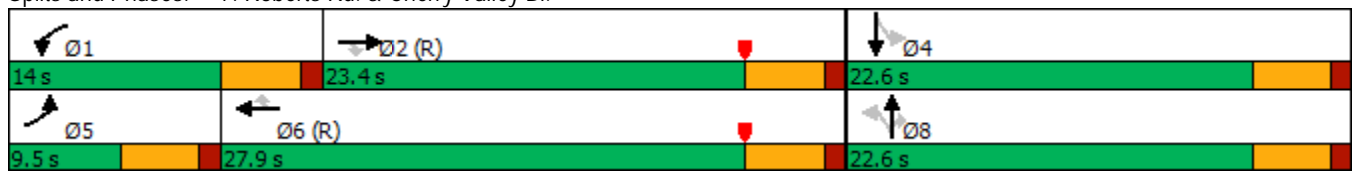
01 - Existing (2022) AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	482	20	120	296	83	11	22	114	143	20	51
Future Volume (vph)	21	482	20	120	296	83	11	22	114	143	20	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		100	150		50	100		100	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4		4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	23.4	23.4	14.0	27.9	27.9	22.6	22.6	22.6	22.6	22.6	22.6
Total Split (%)	15.8%	39.0%	39.0%	23.3%	46.5%	46.5%	37.7%	37.7%	37.7%	37.7%	37.7%	37.7%
Maximum Green (s)	5.0	18.9	18.9	9.5	23.4	23.4	18.1	18.1	18.1	18.1	18.1	18.1
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		5	5		5	5	5	5	5	5	5	5

Intersection Summary
























Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

01 - Existing (2022) AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	482	20	120	296	83	11	22	114	143	20	51
Future Volume (veh/h)	21	482	20	120	296	83	11	22	114	143	20	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	23	530	22	132	325	91	12	24	125	157	22	56
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1343	599	170	1588	708	523	564	478	358	59	99
Arrive On Green	0.03	0.38	0.38	0.10	0.45	0.45	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1321	1870	1585	853	195	328
Grp Volume(v), veh/h	23	530	22	132	325	91	12	24	125	235	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1321	1870	1585	1376	0	0
Q Serve(g_s), s	0.8	6.5	0.5	4.3	3.3	2.0	0.0	0.5	3.6	7.4	0.0	0.0
Cycle Q Clear(g_c), s	0.8	6.5	0.5	4.3	3.3	2.0	0.4	0.5	3.6	8.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.67		0.24
Lane Grp Cap(c), veh/h	47	1343	599	170	1588	708	523	564	478	515	0	0
V/C Ratio(X)	0.49	0.39	0.04	0.78	0.20	0.13	0.02	0.04	0.26	0.46	0.00	0.00
Avail Cap(c_a), veh/h	148	1343	599	282	1588	708	523	564	478	515	0	0
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	0.00
Uniform Delay (d), s/veh	28.8	13.6	11.8	26.5	10.1	9.7	14.8	14.8	15.9	17.5	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.9	0.1	7.5	0.3	0.4	0.1	0.1	1.3	2.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.4	0.2	2.1	1.2	0.7	0.1	0.2	1.4	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	14.5	11.9	34.0	10.4	10.1	14.8	15.0	17.2	20.4	0.0	0.0
LnGrp LOS	D	B	B	C	B	B	B	B	B	C	A	A
Approach Vol, veh/h		575			548			161			235	
Approach Delay, s/veh		15.3			16.0			16.7			20.4	
Approach LOS		B			B			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	27.2		22.6	6.1	31.3		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	18.9		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	6.3	8.5		10.4	2.8	5.3		5.6				
Green Ext Time (p_c), s	0.1	2.5		0.8	0.0	2.1		0.4				

Intersection Summary

HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

















Notes

User approved pedestrian interval to be less than phase max green.



Lanes, Volumes, Timings  
 8: I-10 EB Ramps & Cherry Valley Bl.

01 - Existing (2022) AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	603	140	21	201	0	0	0	0	162	0	339
Future Volume (vph)	0	603	140	21	201	0	0	0	0	162	0	339
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		450			641			982			791	
Travel Time (s)		8.8			12.5			22.3			18.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

HCM 6th AWSC  
 8: I-10 EB Ramps & Cherry Valley Bl.

01 - Existing (2022) AM Peak Hour

Intersection	
Intersection Delay, s/veh	89.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	↻
Traffic Vol, veh/h	0	603	140	21	201	0	0	0	0	162	0	339
Future Vol, veh/h	0	603	140	21	201	0	0	0	0	162	0	339
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	648	151	23	216	0	0	0	0	174	0	365
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	159.8	15.1	18.5
HCM LOS	F	C	C

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	9%	100%	0%
Vol Thru, %	81%	91%	0%	0%
Vol Right, %	19%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	743	222	162	339
LT Vol	0	21	162	0
Through Vol	603	201	0	0
RT Vol	140	0	0	339
Lane Flow Rate	799	239	174	365
Geometry Grp	2	2	7	7
Degree of Util (X)	1.286	0.431	0.356	0.624
Departure Headway (Hd)	5.793	6.944	8.039	6.807
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	631	523	451	536
Service Time	3.803	4.944	5.739	4.507
HCM Lane V/C Ratio	1.266	0.457	0.386	0.681
HCM Control Delay	159.8	15.1	15.1	20.1
HCM Lane LOS	F	C	C	C
HCM 95th-tile Q	31.6	2.1	1.6	4.3

Lanes, Volumes, Timings  
 9: I-10 WB Ramps & Cherry Valley Bl.

01 - Existing (2022) AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↖	↗			
Traffic Volume (vph)	514	251	0	0	90	373	132	10	167	0	0	0
Future Volume (vph)	514	251	0	0	90	373	132	10	167	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		50	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30				30
Link Distance (ft)		641			240			619				885
Travel Time (s)		12.5			4.7			14.1				20.1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop				Stop

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	105.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔	↔			
Traffic Vol, veh/h	514	251	0	0	90	373	132	10	167	0	0	0
Future Vol, veh/h	514	251	0	0	90	373	132	10	167	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	553	270	0	0	97	401	142	11	180	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	189.8	25.7	14.3
HCM LOS	F	D	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	93%	0%	67%	0%
Vol Thru, %	7%	0%	33%	19%
Vol Right, %	0%	100%	0%	81%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	167	765	463
LT Vol	132	0	514	0
Through Vol	10	0	251	90
RT Vol	0	167	0	373
Lane Flow Rate	153	180	823	498
Geometry Grp	7	7	2	2
Degree of Util (X)	0.331	0.331	1.357	0.764
Departure Headway (Hd)	8.469	7.265	5.94	5.984
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	428	497	617	607
Service Time	6.169	4.965	3.975	3.984
HCM Lane V/C Ratio	0.357	0.362	1.334	0.82
HCM Control Delay	15.3	13.5	189.8	25.7
HCM Lane LOS	C	B	F	D
HCM 95th-tile Q	1.4	1.4	35.5	7

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

01 - Existing (2022) AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	248	170	448	124	34	15
Future Volume (vph)	248	170	448	124	34	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	0	50
Storage Lanes	0			0	1	1
Taper Length (ft)	90				90	
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	248	170	448	124	34	15
Future Vol, veh/h	248	170	448	124	34	15
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	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	288	198	521	144	40	17

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	665	0	-	0	1367 593
Stage 1	-	-	-	-	593 -
Stage 2	-	-	-	-	774 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	924	-	-	-	162 506
Stage 1	-	-	-	-	552 -
Stage 2	-	-	-	-	455 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	924	-	-	-	105 506
Mov Cap-2 Maneuver	-	-	-	-	105 -
Stage 1	-	-	-	-	359 -
Stage 2	-	-	-	-	455 -

Approach	EB	WB	SB
HCM Control Delay, s	6.3	0	44.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	924	-	-	-	105	506
HCM Lane V/C Ratio	0.312	-	-	-	0.377	0.034
HCM Control Delay (s)	10.7	0	-	-	58.7	12.4
HCM Lane LOS	B	A	-	-	F	B
HCM 95th %tile Q(veh)	1.3	-	-	-	1.5	0.1

Lanes, Volumes, Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp

01 - Existing (2022) AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	305	2	0	466	79	0
Future Volume (vph)	305	2	0	466	79	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			35	35	
Link Distance (ft)	265			619	350	
Travel Time (s)	6.0			12.1	6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	20.9
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗		↑	↑	
Traffic Vol, veh/h	305	2	0	466	79	0
Future Vol, veh/h	305	2	0	466	79	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	339	2	0	518	88	0
Number of Lanes	1	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	20.2	23.2	10
HCM LOS	C	C	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%
Vol Thru, %	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	466	305	2	79
LT Vol	0	305	0	0
Through Vol	466	0	0	79
RT Vol	0	0	2	0
Lane Flow Rate	518	339	2	88
Geometry Grp	2	7	7	2
Degree of Util (X)	0.761	0.631	0.003	0.145
Departure Headway (Hd)	5.289	6.708	5.492	5.961
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	683	539	651	600
Service Time	3.328	4.444	3.227	4.018
HCM Lane V/C Ratio	0.758	0.629	0.003	0.147
HCM Control Delay	23.2	20.3	8.2	10
HCM Lane LOS	C	C	A	A
HCM 95th-tile Q	7.1	4.4	0	0.5



Lanes, Volumes, Timings  
 12: Roberts Rd. & Singleton Rd.

01 - Existing (2022) AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	2	0	3	1	0
Future Volume (vph)	2	2	0	3	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	35		30			30
Link Distance (ft)	617		284			328
Travel Time (s)	12.0		6.5			7.5
Peak Hour Factor	0.50	0.50	0.50	0.50	0.50	0.50
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	2	2	0	3	1	0
Future Vol, veh/h	2	2	0	3	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	4	0	6	2	0

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	7	3	0	0	6
Stage 1	3	-	-	-	-
Stage 2	4	-	-	-	-
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	1014	1081	-	-	1615
Stage 1	1020	-	-	-	-
Stage 2	1019	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	1013	1081	-	-	1615
Mov Cap-2 Maneuver	1013	-	-	-	-
Stage 1	1020	-	-	-	-
Stage 2	1018	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	7.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1046	1615
HCM Lane V/C Ratio	-	-	0.008	0.001
HCM Control Delay (s)	-	-	8.5	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

This Page Intentionally Left Blank

Lanes, Volumes, Timings  
 1: I-10 EB On-Ramp & Singleton Rd.

01 - Existing (2022) PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		
Traffic Volume (vph)	8	2	190	9	0	0
Future Volume (vph)	8	2	190	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	70		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)			60		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	617			647	1041	
Travel Time (s)	12.0			12.6	23.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Lanes, Volumes, Timings  
 2: I-10 WB Off-Ramp & Singleton Rd.

01 - Existing (2022) PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	8	0	0	196	3	277
Future Volume (vph)	8	0	0	196	3	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	50
Storage Lanes		0	0		0	1
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	647			193	1033	
Travel Time (s)	12.6			3.8	23.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

HCM 6th TWSC  
2: I-10 WB Off-Ramp & Singleton Rd.

01 - Existing (2022) PM Peak Hour

Intersection						
Int Delay, s/veh	5.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	8	0	0	196	3	277
Future Vol, veh/h	8	0	0	196	3	277
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	50
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	9	0	0	213	3	301





















Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	222 9
Stage 1	-	-	-	-	9 -
Stage 2	-	-	-	-	213 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	766 1073
Stage 1	-	0	0	-	1014 -
Stage 2	-	0	0	-	823 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	766 1073
Mov Cap-2 Maneuver	-	-	-	-	766 -
Stage 1	-	-	-	-	1014 -
Stage 2	-	-	-	-	823 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBT
Capacity (veh/h)	766	1073	-	-
HCM Lane V/C Ratio	0.004	0.281	-	-
HCM Control Delay (s)	9.7	9.7	-	-
HCM Lane LOS	A	A	-	-
HCM 95th %tile Q(veh)	0	1.2	-	-

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

01 - Existing (2022) PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	245	1	46	171	68	4	44	16	127	99	21
Future Volume (vph)	39	245	1	46	171	68	4	44	16	127	99	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	150		50	150		50	150		50
Storage Lanes	0		1	0		1	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		193			651			430			987	
Travel Time (s)		3.8			12.7			8.4			19.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕	↕		↕	
Traffic Vol, veh/h	39	245	1	46	171	68	4	44	16	127	99	21
Future Vol, veh/h	39	245	1	46	171	68	4	44	16	127	99	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	253	1	47	176	70	4	45	16	131	102	22
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	14.7	11.7	10	14.6
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	8%	0%	14%	0%	21%	0%	51%
Vol Thru, %	92%	0%	86%	0%	79%	0%	40%
Vol Right, %	0%	100%	0%	100%	0%	100%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	16	284	1	217	68	247
LT Vol	4	0	39	0	46	0	127
Through Vol	44	0	245	0	171	0	99
RT Vol	0	16	0	1	0	68	21
Lane Flow Rate	49	16	293	1	224	70	255
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.093	0.028	0.496	0.002	0.383	0.104	0.452
Departure Headway (Hd)	6.782	6.027	6.1	5.32	6.158	5.339	6.392
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	591	591	671	584	669	563
Service Time	4.551	3.795	3.847	3.067	3.907	3.088	4.443
HCM Lane V/C Ratio	0.093	0.027	0.496	0.001	0.384	0.105	0.453
HCM Control Delay	10.3	9	14.7	8.1	12.7	8.7	14.6
HCM Lane LOS	B	A	B	A	B	A	B
HCM 95th-tile Q	0.3	0.1	2.7	0	1.8	0.3	2.3



Lanes, Volumes, Timings  
4: Beckwith Av. & Singleton Rd.

01 - Existing (2022) PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	375	27	5	265	16	4
Future Volume (vph)	375	27	5	265	16	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	7.9			33.2	7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

HCM 6th TWSC  
4: Beckwith Av. & Singleton Rd.

01 - Existing (2022) PM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	375	27	5	265	16	4
Future Vol, veh/h	375	27	5	265	16	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	395	28	5	279	17	4























Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	423	0	698
Stage 1	-	-	-	-	409
Stage 2	-	-	-	-	289
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1136	-	407
Stage 1	-	-	-	-	671
Stage 2	-	-	-	-	760
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1136	-	405
Mov Cap-2 Maneuver	-	-	-	-	405
Stage 1	-	-	-	-	671
Stage 2	-	-	-	-	757

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	437	-	-	1136	-
HCM Lane V/C Ratio	0.048	-	-	0.005	-
HCM Control Delay (s)	13.7	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings  
 5: Singleton Cyn. Rd. & Singleton Rd.

01 - Existing (2022) PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	84	304	1	1	215	13	1	1	2	16	1	40
Future Volume (vph)	84	304	1	1	215	13	1	1	2	16	1	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		15.0			14.2			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕		↕↗	↕
Traffic Vol, veh/h	84	304	1	1	215	13	1	1	2	16	1	40
Future Vol, veh/h	84	304	1	1	215	13	1	1	2	16	1	40
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	317	1	1	224	14	1	1	2	17	1	42
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	9.7	9.6	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	50%	0%	100%	0%	0%	100%	0%	0%	94%	0%
Vol Thru, %	50%	0%	0%	100%	99%	0%	100%	85%	6%	0%
Vol Right, %	0%	100%	0%	0%	1%	0%	0%	15%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	2	84	203	102	1	143	85	17	40
LT Vol	1	0	84	0	0	1	0	0	16	0
Through Vol	1	0	0	203	101	0	143	72	1	0
RT Vol	0	2	0	0	1	0	0	13	0	40
Lane Flow Rate	2	2	88	211	107	1	149	88	18	42
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.004	0.003	0.139	0.306	0.154	0.002	0.229	0.132	0.032	0.063
Departure Headway (Hd)	6.511	5.561	5.72	5.219	5.212	6.014	5.513	5.405	6.604	5.434
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	545	637	625	686	685	593	649	661	539	654
Service Time	4.302	3.351	3.471	2.969	2.963	3.769	3.267	3.16	4.383	3.213
HCM Lane V/C Ratio	0.004	0.003	0.141	0.308	0.156	0.002	0.23	0.133	0.033	0.064
HCM Control Delay	9.3	8.4	9.4	10.3	8.9	8.8	9.9	9	9.6	8.6
HCM Lane LOS	A	A	A	B	A	A	A	A	A	A
HCM 95th-tile Q	0	0	0.5	1.3	0.5	0	0.9	0.5	0.1	0.2

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

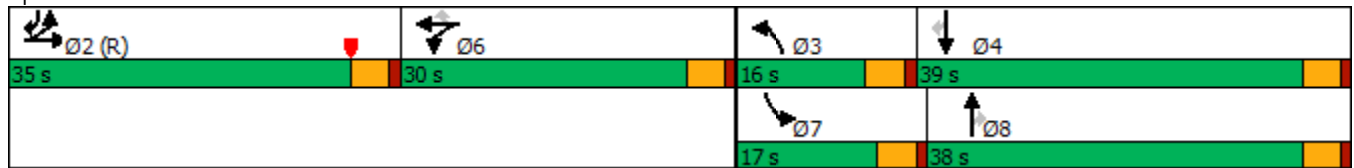
01 - Existing (2022) PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	85	81	38	178	26	77	285	161	30	168	319
Future Volume (vph)	89	85	81	38	178	26	77	285	161	30	168	319
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			17.2			5.7			14.6	
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
Shared Lane Traffic (%)	10%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0		30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0		30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%		25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Maximum Green (s)	30.5	30.5		25.5	25.5	25.5	11.5	33.5	33.5	12.5	34.5	30.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	5	5		5	5	5		5	5		5	5

Intersection Summary
























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

01 - Existing (2022) PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	85	81	38	178	26	77	285	161	30	168	319
Future Volume (veh/h)	89	85	81	38	178	26	77	285	161	30	168	319
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	90	97	86	40	189	28	82	303	171	32	179	339
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	678	732	587	220	230	195	104	1132	505	49	538	1059
Arrive On Green	0.38	0.38	0.38	0.12	0.12	0.12	0.06	0.32	0.32	0.03	0.29	0.29
Sat Flow, veh/h	1781	1922	1542	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	90	94	89	40	189	28	82	303	171	32	179	339
Grp Sat Flow(s),veh/h/ln	1781	1870	1593	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.0	3.9	4.4	2.4	11.8	1.9	5.5	7.6	9.9	2.1	9.0	10.8
Cycle Q Clear(g_c), s	4.0	3.9	4.4	2.4	11.8	1.9	5.5	7.6	9.9	2.1	9.0	10.8
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	678	712	607	220	230	195	104	1132	505	49	538	1059
V/C Ratio(X)	0.13	0.13	0.15	0.18	0.82	0.14	0.79	0.27	0.34	0.66	0.33	0.32
Avail Cap(c_a), veh/h	678	712	607	379	397	337	171	1132	505	186	538	1059
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	24.2	24.2	24.4	47.2	51.3	47.0	55.8	30.5	31.2	57.8	33.7	8.4
Incr Delay (d2), s/veh	0.4	0.4	0.5	0.4	7.1	0.3	12.3	0.6	1.8	14.0	1.7	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	1.8	1.8	1.8	1.1	6.0	0.8	2.8	3.3	4.0	1.1	4.3	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	24.6	24.9	47.6	58.4	47.3	68.0	31.0	33.0	71.9	35.3	9.2
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	A
Approach Vol, veh/h		273			257			556			550	
Approach Delay, s/veh		24.7			55.5			37.1			21.4	
Approach LOS		C			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		50.2	11.5	39.0		19.3	7.8	42.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		6.4	7.5	12.8		13.8	4.1	11.9				
Green Ext Time (p_c), s		1.3	0.1	2.1		1.0	0.0	2.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

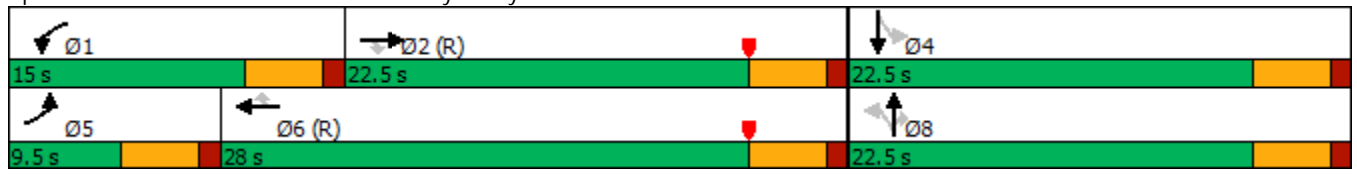
01 - Existing (2022) PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	420	23	243	555	51	23	8	131	26	11	6
Future Volume (vph)	6	420	23	243	555	51	23	8	131	26	11	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		100	150		50	100		100	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4		4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Maximum Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		5	5		5	5	5	5	5	5	5	5

Intersection Summary




























Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

















01 - Existing (2022) PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	6	420	23	243	555	51	23	8	131	26	11	6
Future Volume (veh/h)	6	420	23	243	555	51	23	8	131	26	11	6
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	6	442	24	256	584	54	24	8	138	27	12	6
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	14	1083	483	303	1660	740	545	561	476	331	140	58
Arrive On Green	0.01	0.30	0.30	0.17	0.47	0.47	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1395	1870	1585	783	465	192
Grp Volume(v), veh/h	6	442	24	256	584	54	24	8	138	45	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1395	1870	1585	1440	0	0
Q Serve(g_s), s	0.2	5.9	0.6	8.4	6.3	1.1	0.0	0.2	4.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	5.9	0.6	8.4	6.3	1.1	0.6	0.2	4.0	1.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.60		0.13
Lane Grp Cap(c), veh/h	14	1083	483	303	1660	740	545	561	476	528	0	0
V/C Ratio(X)	0.42	0.41	0.05	0.84	0.35	0.07	0.04	0.01	0.29	0.09	0.00	0.00
Avail Cap(c_a), veh/h	148	1083	483	312	1660	740	545	561	476	528	0	0
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	0.00
Uniform Delay (d), s/veh	29.6	16.6	14.7	24.1	10.2	8.8	14.9	14.8	16.1	15.1	0.0	0.0
Incr Delay (d2), s/veh	18.9	1.1	0.2	18.3	0.6	0.2	0.2	0.0	1.5	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.3	0.2	4.7	2.1	0.4	0.2	0.1	1.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	17.7	14.9	42.4	10.8	9.0	15.1	14.8	17.6	15.4	0.0	0.0
LnGrp LOS	D	B	B	D	B	A	B	B	B	B	A	A
Approach Vol, veh/h		472			894			170			45	
Approach Delay, s/veh		18.0			19.7			17.1			15.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.7	22.8		22.5	5.0	32.5		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	10.4	7.9		3.1	2.2	8.3		6.0				
Green Ext Time (p_c), s	0.0	2.0		0.1	0.0	3.5		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				18.8								
HCM 6th LOS				B								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



Lanes, Volumes, Timings  
 8: I-10 EB Ramps & Cherry Valley Bl.

01 - Existing (2022) PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	430	158	26	257	0	0	0	0	275	0	603
Future Volume (vph)	0	430	158	26	257	0	0	0	0	275	0	603
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		450			641			982			791	
Travel Time (s)		8.8			12.5			22.3			18.0	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

HCM 6th AWSC  
8: I-10 EB Ramps & Cherry Valley Bl.

01 - Existing (2022) PM Peak Hour

Intersection	
Intersection Delay, s/veh	61.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	↻
Traffic Vol, veh/h	0	430	158	26	257	0	0	0	0	275	0	603
Future Vol, veh/h	0	430	158	26	257	0	0	0	0	275	0	603
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	434	160	26	260	0	0	0	0	278	0	609
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	75.3	19.2	66.2
HCM LOS	F	C	F

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	9%	100%	0%
Vol Thru, %	73%	91%	0%	0%
Vol Right, %	27%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	588	283	275	603
LT Vol	0	26	275	0
Through Vol	430	257	0	0
RT Vol	158	0	0	603
Lane Flow Rate	594	286	278	609
Geometry Grp	2	2	7	7
Degree of Util (X)	1.043	0.56	0.585	1.081
Departure Headway (Hd)	6.512	7.325	7.794	6.564
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	564	495	467	560
Service Time	4.512	5.325	5.494	4.264
HCM Lane V/C Ratio	1.053	0.578	0.595	1.087
HCM Control Delay	75.3	19.2	20.9	86.9
HCM Lane LOS	F	C	C	F
HCM 95th-tile Q	16.3	3.4	3.7	17.9

Lanes, Volumes, Timings  
 9: I-10 WB Ramps & Cherry Valley Bl.

01 - Existing (2022) PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↖	↗			
Traffic Volume (vph)	367	338	0	0	117	222	166	8	51	0	0	0
Future Volume (vph)	367	338	0	0	117	222	166	8	51	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		50	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30				30
Link Distance (ft)		641			240			619				885
Travel Time (s)		12.5			4.7			14.1				20.1
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop				Stop

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	59.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔			↕	↕			
Traffic Vol, veh/h	367	338	0	0	117	222	166	8	51	0	0	0
Future Vol, veh/h	367	338	0	0	117	222	166	8	51	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	386	356	0	0	123	234	175	8	54	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	95.1	14.5	14.1
HCM LOS	F	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	95%	0%	52%	0%
Vol Thru, %	5%	0%	48%	35%
Vol Right, %	0%	100%	0%	65%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	51	705	339
LT Vol	166	0	367	0
Through Vol	8	0	338	117
RT Vol	0	51	0	222
Lane Flow Rate	183	54	742	357
Geometry Grp	7	7	2	2
Degree of Util (X)	0.383	0.094	1.122	0.526
Departure Headway (Hd)	7.855	6.647	5.442	5.551
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	462	542	675	653
Service Time	5.555	4.347	3.442	3.551
HCM Lane V/C Ratio	0.396	0.1	1.099	0.547
HCM Control Delay	15.3	10	95.1	14.5
HCM Lane LOS	C	A	F	B
HCM 95th-tile Q	1.8	0.3	22.5	3.1

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

01 - Existing (2022) PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Volume (vph)	39	350	268	33	81	71
Future Volume (vph)	39	350	268	33	81	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	0	50
Storage Lanes	0			0	1	1
Taper Length (ft)	90				90	
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	↕
Traffic Vol, veh/h	39	350	268	33	81	71
Future Vol, veh/h	39	350	268	33	81	71
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	50
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	42	380	291	36	88	77

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	327	0	-	0	773
Stage 1	-	-	-	-	309
Stage 2	-	-	-	-	464
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1233	-	-	-	367
Stage 1	-	-	-	-	745
Stage 2	-	-	-	-	633
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1233	-	-	-	351
Mov Cap-2 Maneuver	-	-	-	-	351
Stage 1	-	-	-	-	713
Stage 2	-	-	-	-	633

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1233	-	-	-	351	731
HCM Lane V/C Ratio	0.034	-	-	-	0.251	0.106
HCM Control Delay (s)	8	0	-	-	18.7	10.5
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1	0.4

Lanes, Volumes, Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp

01 - Existing (2022) PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	354	1	0	169	287	0
Future Volume (vph)	354	1	0	169	287	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			35	35	
Link Distance (ft)	265			619	350	
Travel Time (s)	6.0			12.1	6.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	16.5
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗		↑	↑	
Traffic Vol, veh/h	354	1	0	169	287	0
Future Vol, veh/h	354	1	0	169	287	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	381	1	0	182	309	0
Number of Lanes	1	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	21.6	11.1	13.5
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%
Vol Thru, %	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	354	1	287
LT Vol	0	354	0	0
Through Vol	169	0	0	287
RT Vol	0	0	1	0
Lane Flow Rate	182	381	1	309
Geometry Grp	2	7	7	2
Degree of Util (X)	0.29	0.678	0.002	0.475
Departure Headway (Hd)	5.749	6.416	5.202	5.544
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	623	563	688	648
Service Time	3.798	4.148	2.933	3.587
HCM Lane V/C Ratio	0.292	0.677	0.001	0.477
HCM Control Delay	11.1	21.6	7.9	13.5
HCM Lane LOS	B	C	A	B
HCM 95th-tile Q	1.2	5.1	0	2.6



Lanes, Volumes, Timings  
 12: Roberts Rd. & Singleton Rd.

01 - Existing (2022) PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	4	0	3	0	0
Future Volume (vph)	5	4	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	35		30			30
Link Distance (ft)	617		284			328
Travel Time (s)	12.0		6.5			7.5
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized

Intersection						
Int Delay, s/veh	5.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	4	0	3	0	0
Future Vol, veh/h	5	4	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	7	0	5	0	0

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	5	3	0	0	5	0
Stage 1	3	-	-	-	-	-
Stage 2	2	-	-	-	-	-
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	1017	1081	-	-	1616	-
Stage 1	1020	-	-	-	-	-
Stage 2	1021	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1017	1081	-	-	1616	-
Mov Cap-2 Maneuver	1017	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1021	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1044	1616
HCM Lane V/C Ratio	-	-	0.014	-
HCM Control Delay (s)	-	-	8.5	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

This Page Intentionally Left Blank

Lanes, Volumes, Timings  
 1: I-10 EB On-Ramp & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		
Traffic Volume (vph)	2	2	192	6	0	0
Future Volume (vph)	2	2	192	6	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	70		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)			60		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	617			647	1041	
Travel Time (s)	12.0			12.6	23.7	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Lanes, Volumes, Timings  
 2: I-10 WB Off-Ramp & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	2	0	0	184	14	145
Future Volume (vph)	2	0	0	184	14	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	50
Storage Lanes		0	0		0	1
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	647			193	1033	
Travel Time (s)	12.6			3.8	23.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					

HCM 6th TWSC  
2: I-10 WB Off-Ramp & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour

Intersection						
Int Delay, s/veh	4.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↘
Traffic Vol, veh/h	2	0	0	184	14	145
Future Vol, veh/h	2	0	0	184	14	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	50
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	2	0	0	200	15	158





















Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	202 2
Stage 1	-	-	-	-	2 -
Stage 2	-	-	-	-	200 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	787 1082
Stage 1	-	0	0	-	1021 -
Stage 2	-	0	0	-	834 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	787 1082
Mov Cap-2 Maneuver	-	-	-	-	787 -
Stage 1	-	-	-	-	1021 -
Stage 2	-	-	-	-	834 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBT
Capacity (veh/h)	787	1082	-	-
HCM Lane V/C Ratio	0.019	0.146	-	-
HCM Control Delay (s)	9.7	8.9	-	-
HCM Lane LOS	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0.5	-	-

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	117	1	27	172	84	1	44	31	93	63	11
Future Volume (vph)	29	117	1	27	172	84	1	44	31	93	63	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	150		50	150		50	150		50
Storage Lanes	0		1	0		1	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35				35
Link Distance (ft)		193			651			430				987
Travel Time (s)		3.8			12.7			8.4				19.2
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕	↕		↕	
Traffic Vol, veh/h	29	117	1	27	172	84	1	44	31	93	63	11
Future Vol, veh/h	29	117	1	27	172	84	1	44	31	93	63	11
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	124	1	29	183	89	1	47	33	99	67	12
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	10.4	10.2	8.9	11.4
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	2%	0%	20%	0%	14%	0%	56%
Vol Thru, %	98%	0%	80%	0%	86%	0%	38%
Vol Right, %	0%	100%	0%	100%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	31	146	1	199	84	167
LT Vol	1	0	29	0	27	0	93
Through Vol	44	0	117	0	172	0	63
RT Vol	0	31	0	1	0	84	11
Lane Flow Rate	48	33	155	1	212	89	178
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.081	0.049	0.25	0.001	0.324	0.118	0.294
Departure Headway (Hd)	6.055	5.336	5.798	4.99	5.616	4.841	5.953
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	594	674	623	720	644	745	606
Service Time	3.768	3.048	3.509	2.701	3.316	2.541	3.961
HCM Lane V/C Ratio	0.081	0.049	0.249	0.001	0.329	0.119	0.294
HCM Control Delay	9.3	8.3	10.4	7.7	11	8.2	11.4
HCM Lane LOS	A	A	B	A	B	A	B
HCM 95th-tile Q	0.3	0.2	1	0	1.4	0.4	1.2



Lanes, Volumes, Timings  
4: Beckwith Av. & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	188	22	5	267	29	7
Future Volume (vph)	188	22	5	267	29	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	7.9			33.2	7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	188	22	5	267	29	7
Future Vol, veh/h	188	22	5	267	29	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	198	23	5	281	31	7























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	221	0	501 210
Stage 1	-	-	-	-	210 -
Stage 2	-	-	-	-	291 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1348	-	530 830
Stage 1	-	-	-	-	825 -
Stage 2	-	-	-	-	759 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1348	-	528 830
Mov Cap-2 Maneuver	-	-	-	-	528 -
Stage 1	-	-	-	-	825 -
Stage 2	-	-	-	-	756 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	568	-	-	1348	-
HCM Lane V/C Ratio	0.067	-	-	0.004	-
HCM Control Delay (s)	11.8	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	36	157	1	1	233	5	2	1	1	7	1	47
Future Volume (vph)	36	157	1	1	233	5	2	1	1	7	1	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		15.0			14.2			8.8			7.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

HCM 6th AWSC  
5: Singleton Cyn. Rd. & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕		↕↗	↕
Traffic Vol, veh/h	36	157	1	1	233	5	2	1	1	7	1	47
Future Vol, veh/h	36	157	1	1	233	5	2	1	1	7	1	47
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	173	1	1	256	5	2	1	1	8	1	52
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	8.8	9.2	8.7	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	67%	0%	100%	0%	0%	100%	0%	0%	88%	0%
Vol Thru, %	33%	0%	0%	100%	98%	0%	100%	94%	12%	0%
Vol Right, %	0%	100%	0%	0%	2%	0%	0%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	1	36	105	53	1	155	83	8	47
LT Vol	2	0	36	0	0	1	0	0	7	0
Through Vol	1	0	0	105	52	0	155	78	1	0
RT Vol	0	1	0	0	1	0	0	5	0	47
Lane Flow Rate	3	1	40	115	59	1	171	91	9	52
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.006	0.002	0.063	0.167	0.085	0.002	0.244	0.129	0.015	0.072
Departure Headway (Hd)	6.197	5.164	5.734	5.233	5.22	5.65	5.149	5.107	6.184	5.048
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	576	689	624	684	685	633	696	701	577	707
Service Time	3.956	2.923	3.474	2.972	2.959	3.386	2.885	2.843	3.937	2.801
HCM Lane V/C Ratio	0.005	0.001	0.064	0.168	0.086	0.002	0.246	0.13	0.016	0.074
HCM Control Delay	9	7.9	8.9	9	8.4	8.4	9.6	8.6	9	8.2
HCM Lane LOS	A	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0	0.2	0.6	0.3	0	1	0.4	0	0.2

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

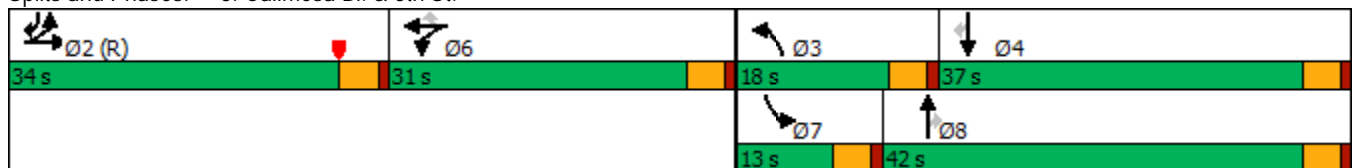
01 - Existing (2022) Sunday Morning Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	53	29	33	168	33	62	332	113	32	102	305
Future Volume (vph)	72	53	29	33	168	33	62	332	113	32	102	305
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			17.2			5.7			14.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)	28%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	9.5	38.0	38.0	9.5	31.0	22.5
Total Split (s)	34.0	34.0		31.0	31.0	31.0	18.0	42.0	42.0	13.0	37.0	34.0
Total Split (%)	28.3%	28.3%		25.8%	25.8%	25.8%	15.0%	35.0%	35.0%	10.8%	30.8%	28.3%
Maximum Green (s)	29.5	29.5		26.5	26.5	26.5	13.5	37.5	37.5	8.5	32.5	29.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	5	5		5	5	5		5	5		5	5
























Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary 01 - Existing (2022) Sunday Morning Peak Hour  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	53	29	33	168	33	62	332	113	32	102	305
Future Volume (veh/h)	72	53	29	33	168	33	62	332	113	32	102	305
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	56	90	32	36	185	36	68	365	124	35	112	335
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	690	1035	351	216	227	193	88	1111	495	51	546	1077
Arrive On Green	0.39	0.39	0.39	0.12	0.12	0.12	0.05	0.31	0.31	0.03	0.29	0.29
Sat Flow, veh/h	1781	2672	906	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	56	62	60	36	185	36	68	365	124	35	112	335
Grp Sat Flow(s),veh/h/ln	1781	1870	1707	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	2.4	2.5	2.7	2.2	11.6	2.4	4.5	9.4	7.0	2.3	5.4	10.3
Cycle Q Clear(g_c), s	2.4	2.5	2.7	2.2	11.6	2.4	4.5	9.4	7.0	2.3	5.4	10.3
Prop In Lane	1.00		0.53	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	690	724	661	216	227	193	88	1111	495	51	546	1077
V/C Ratio(X)	0.08	0.09	0.09	0.17	0.81	0.19	0.78	0.33	0.25	0.68	0.21	0.31
Avail Cap(c_a), veh/h	690	724	661	393	413	350	200	1111	495	126	546	1077
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	23.3	23.3	23.3	47.3	51.4	47.4	56.4	31.6	30.8	57.7	32.0	7.8
Incr Delay (d2), s/veh	0.2	0.2	0.3	0.4	6.9	0.5	13.5	0.8	1.2	15.0	0.8	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	1.1	1.2	1.1	1.0	5.9	1.0	2.3	4.1	2.8	1.3	2.6	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	23.5	23.6	47.6	58.3	47.8	69.9	32.4	32.0	72.7	32.8	8.6
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	C	A
Approach Vol, veh/h		178			257			557			482	
Approach Delay, s/veh		23.5			55.3			36.9			18.9	
Approach LOS		C			E			D			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		51.0	10.4	39.5		19.1	7.9	42.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	13.5	32.5		26.5	8.5	37.5				
Max Q Clear Time (g_c+I1), s		4.7	6.5	12.3		13.6	4.3	11.4				
Green Ext Time (p_c), s		0.8	0.1	1.7		1.0	0.0	2.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

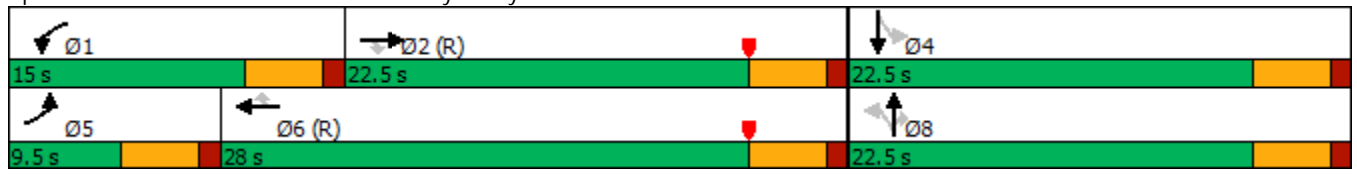
01 - Existing (2022) Sunday Morning Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	390	40	242	332	32	22	3	140	34	11	1
Future Volume (vph)	4	390	40	242	332	32	22	3	140	34	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		100	150		50	100		100	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Maximum Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		5	5		5	5	5	5	5	5	5	5
























Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary 01 - Existing (2022) Sunday Morning Peak Hour  
 7: Roberts Rd. & Cherry Valley Bl.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	390	40	242	332	32	22	3	140	34	11	1
Future Volume (veh/h)	4	390	40	242	332	32	22	3	140	34	11	1
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	4	415	43	257	353	34	23	3	149	36	12	1
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	10	1081	482	304	1669	744	549	561	476	391	117	8
Arrive On Green	0.01	0.30	0.30	0.17	0.47	0.47	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1401	1870	1585	955	392	28
Grp Volume(v), veh/h	4	415	43	257	353	34	23	3	149	49	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1401	1870	1585	1374	0	0
Q Serve(g_s), s	0.1	5.5	1.2	8.4	3.5	0.7	0.0	0.1	4.4	0.6	0.0	0.0
Cycle Q Clear(g_c), s	0.1	5.5	1.2	8.4	3.5	0.7	0.5	0.1	4.4	1.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.73		0.02
Lane Grp Cap(c), veh/h	10	1081	482	304	1669	744	549	561	476	516	0	0
V/C Ratio(X)	0.42	0.38	0.09	0.84	0.21	0.05	0.04	0.01	0.31	0.09	0.00	0.00
Avail Cap(c_a), veh/h	148	1081	482	312	1669	744	549	561	476	516	0	0
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	0.00
Uniform Delay (d), s/veh	29.7	16.4	14.9	24.1	9.4	8.6	14.9	14.7	16.2	15.1	0.0	0.0
Incr Delay (d2), s/veh	26.5	1.0	0.4	18.4	0.3	0.1	0.1	0.0	1.7	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.1	0.4	4.8	1.2	0.2	0.2	0.0	1.7	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.2	17.5	15.3	42.5	9.7	8.7	15.0	14.7	17.9	15.5	0.0	0.0
LnGrp LOS	E	B	B	D	A	A	B	B	B	B	A	A
Approach Vol, veh/h		462			644			175			49	
Approach Delay, s/veh		17.6			22.7			17.5			15.5	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.8	22.7		22.5	4.8	32.7		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	10.4	7.5		3.3	2.1	5.5		6.4				
Green Ext Time (p_c), s	0.0	2.0		0.1	0.0	2.1		0.4				

Intersection Summary												
HCM 6th Ctrl Delay				20.0								
HCM 6th LOS				B								

Notes

User approved pedestrian interval to be less than phase max green.



Lanes, Volumes, Timings  
 8: I-10 EB Ramps & Cherry Valley Bl.

01 - Existing (2022) Sunday Morning Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	429	142	18	228	0	0	0	0	225	2	388
Future Volume (vph)	0	429	142	18	228	0	0	0	0	225	2	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30				30
Link Distance (ft)		450			641			982				791
Travel Time (s)		8.8			12.5			22.3				18.0
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop				Stop

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	34.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	↔
Traffic Vol, veh/h	0	429	142	18	228	0	0	0	0	225	2	388
Future Vol, veh/h	0	429	142	18	228	0	0	0	0	225	2	388
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	447	148	19	238	0	0	0	0	234	2	404
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	56.7	15.9	20.8
HCM LOS	F	C	C

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	7%	99%	0%
Vol Thru, %	75%	93%	1%	0%
Vol Right, %	25%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	571	246	227	388
LT Vol	0	18	225	0
Through Vol	429	228	2	0
RT Vol	142	0	0	388
Lane Flow Rate	595	256	236	404
Geometry Grp	2	2	7	7
Degree of Util (X)	0.982	0.477	0.492	0.705
Departure Headway (Hd)	5.944	6.704	7.498	6.276
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	607	533	478	574
Service Time	4.019	4.802	5.285	4.062
HCM Lane V/C Ratio	0.98	0.48	0.494	0.704
HCM Control Delay	56.7	15.9	17.4	22.8
HCM Lane LOS	F	C	C	C
HCM 95th-tile Q	14.2	2.5	2.7	5.6

Lanes, Volumes, Timings  
 9: I-10 WB Ramps & Cherry Valley Bl.

01 - Existing (2022) Sunday Morning Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↖	↗			
Traffic Volume (vph)	463	191	0	0	118	205	128	4	43	0	0	0
Future Volume (vph)	463	191	0	0	118	205	128	4	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		50	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30				30
Link Distance (ft)		641			240			619				885
Travel Time (s)		12.5			4.7			14.1				20.1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop				Stop

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	30.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷			↶	↷			
Traffic Vol, veh/h	463	191	0	0	118	205	128	4	43	0	0	0
Future Vol, veh/h	463	191	0	0	118	205	128	4	43	0	0	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	468	193	0	0	119	207	129	4	43	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	44.1	12.4	12.1
HCM LOS	E	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	97%	0%	71%	0%
Vol Thru, %	3%	0%	29%	37%
Vol Right, %	0%	100%	0%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	43	654	323
LT Vol	128	0	463	0
Through Vol	4	0	191	118
RT Vol	0	43	0	205
Lane Flow Rate	133	43	661	326
Geometry Grp	7	7	2	2
Degree of Util (X)	0.276	0.075	0.944	0.46
Departure Headway (Hd)	7.439	6.229	5.142	5.078
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	483	574	707	708
Service Time	5.189	3.978	3.173	3.118
HCM Lane V/C Ratio	0.275	0.075	0.935	0.46
HCM Control Delay	13	9.5	44.1	12.4
HCM Lane LOS	B	A	E	B
HCM 95th-tile Q	1.1	0.2	13.4	2.4

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

01 - Existing (2022) Sunday Morning Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	↕
Traffic Volume (vph)	36	198	272	55	49	51
Future Volume (vph)	36	198	272	55	49	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	0	50
Storage Lanes	0			0	1	1
Taper Length (ft)	90				90	
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	36	198	272	55	49	51
Future Vol, veh/h	36	198	272	55	49	51
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	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	208	286	58	52	54

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	344	0	-	0	599
Stage 1	-	-	-	-	315
Stage 2	-	-	-	-	284
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1215	-	-	-	465
Stage 1	-	-	-	-	740
Stage 2	-	-	-	-	764
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1215	-	-	-	449
Mov Cap-2 Maneuver	-	-	-	-	449
Stage 1	-	-	-	-	714
Stage 2	-	-	-	-	764

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1215	-	-	-	449	725
HCM Lane V/C Ratio	0.031	-	-	-	0.115	0.074
HCM Control Delay (s)	8.1	0	-	-	14.1	10.4
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.2

Lanes, Volumes, Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp

01 - Existing (2022) Sunday Morning Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	338	4	0	169	164	0
Future Volume (vph)	338	4	0	169	164	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			35	35	
Link Distance (ft)	265			619	350	
Travel Time (s)	6.0			12.1	6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

HCM 6th AWSC  
11: Calimesa Bl. & I-10 WB Off-Ramp

01 - Existing (2022) Sunday Morning Peak Hour

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗		↑	↑	
Traffic Vol, veh/h	338	4	0	169	164	0
Future Vol, veh/h	338	4	0	169	164	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	376	4	0	188	182	0
Number of Lanes	1	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	18.6	10.7	10.6
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%
Vol Thru, %	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	338	4	164
LT Vol	0	338	0	0
Through Vol	169	0	0	164
RT Vol	0	0	4	0
Lane Flow Rate	188	376	4	182
Geometry Grp	2	7	7	2
Degree of Util (X)	0.286	0.633	0.006	0.278
Departure Headway (Hd)	5.475	6.066	4.856	5.484
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	659	597	738	658
Service Time	3.483	3.791	2.581	3.492
HCM Lane V/C Ratio	0.285	0.63	0.005	0.277
HCM Control Delay	10.7	18.7	7.6	10.6
HCM Lane LOS	B	C	A	B
HCM 95th-tile Q	1.2	4.4	0	1.1



Lanes, Volumes, Timings  
 12: Roberts Rd. & Singleton Rd.

01 - Existing (2022) Sunday Morning Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	3	0	2	3	0
Future Volume (vph)	1	3	0	2	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	35		30			30
Link Distance (ft)	617		284			328
Travel Time (s)	12.0		6.5			7.5
Peak Hour Factor	0.40	0.40	0.40	0.40	0.40	0.40
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized

Intersection						
Int Delay, s/veh	6.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	1	3	0	2	3	0
Future Vol, veh/h	1	3	0	2	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	40	40	40	40	40	40
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	8	0	5	8	0

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	19	3	0	0	5
Stage 1	3	-	-	-	-
Stage 2	16	-	-	-	-
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	998	1081	-	-	1616
Stage 1	1020	-	-	-	-
Stage 2	1007	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	993	1081	-	-	1616
Mov Cap-2 Maneuver	993	-	-	-	-
Stage 1	1020	-	-	-	-
Stage 2	1002	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	7.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1058	1616
HCM Lane V/C Ratio	-	-	0.009	0.005
HCM Control Delay (s)	-	-	8.4	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

This Page Intentionally Left Blank

**APPENDIX 3.3: EXISTING (2022) CONDITIONS TRAFFIC SIGNAL  
WARRANT ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

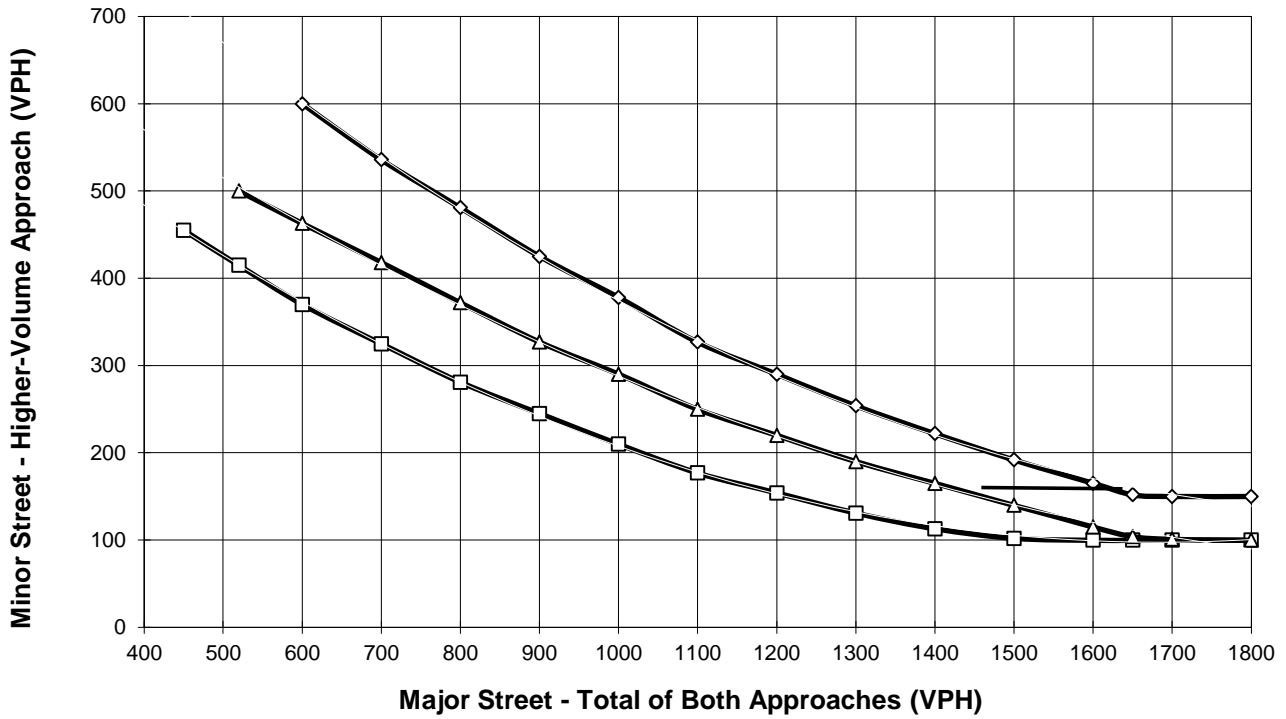
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **333**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 EB Ramps**

High Volume Approach (VPH) = **0**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- \*— Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

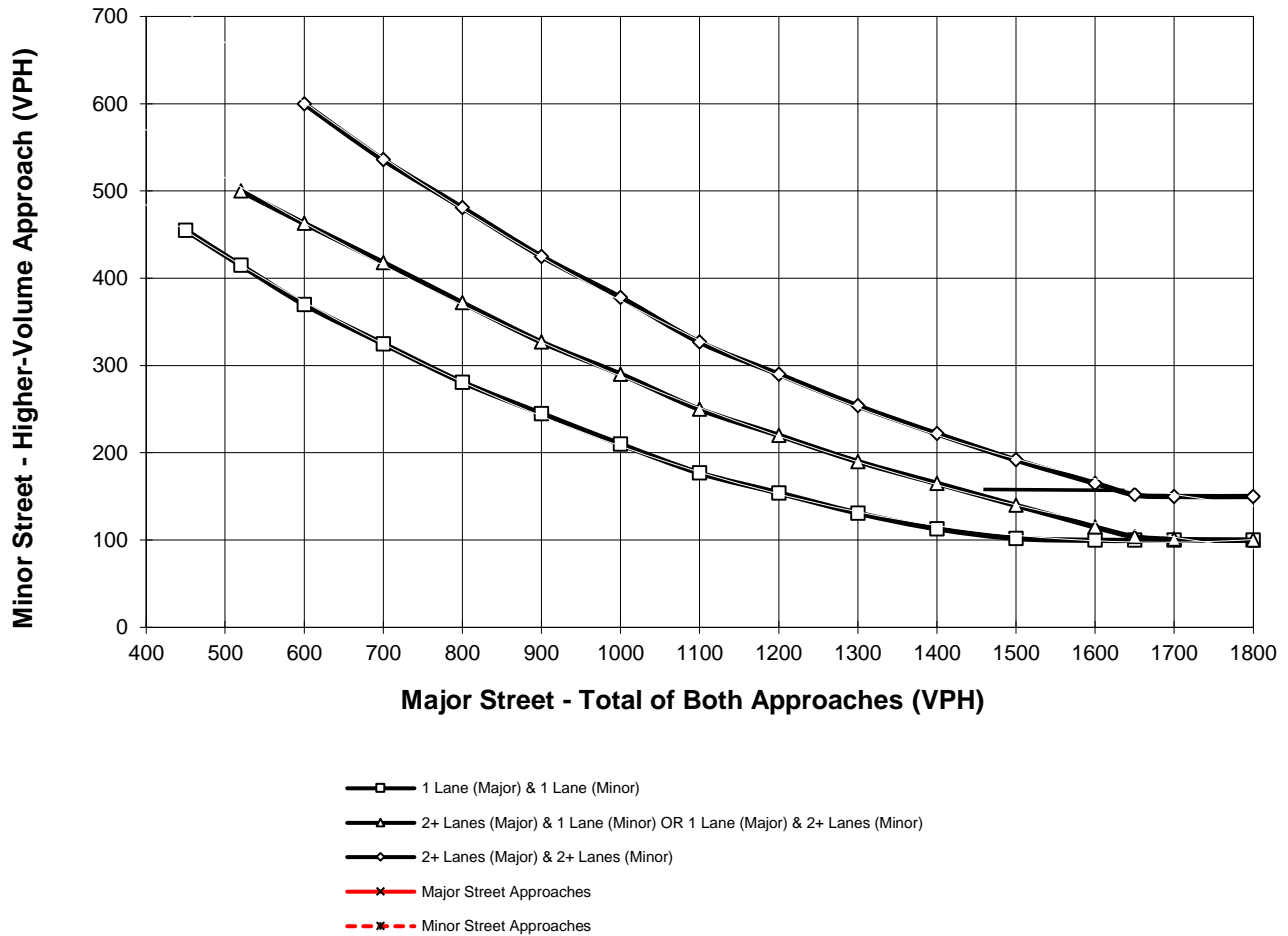
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **209**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 EB Ramps**

High Volume Approach (VPH) = **0**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

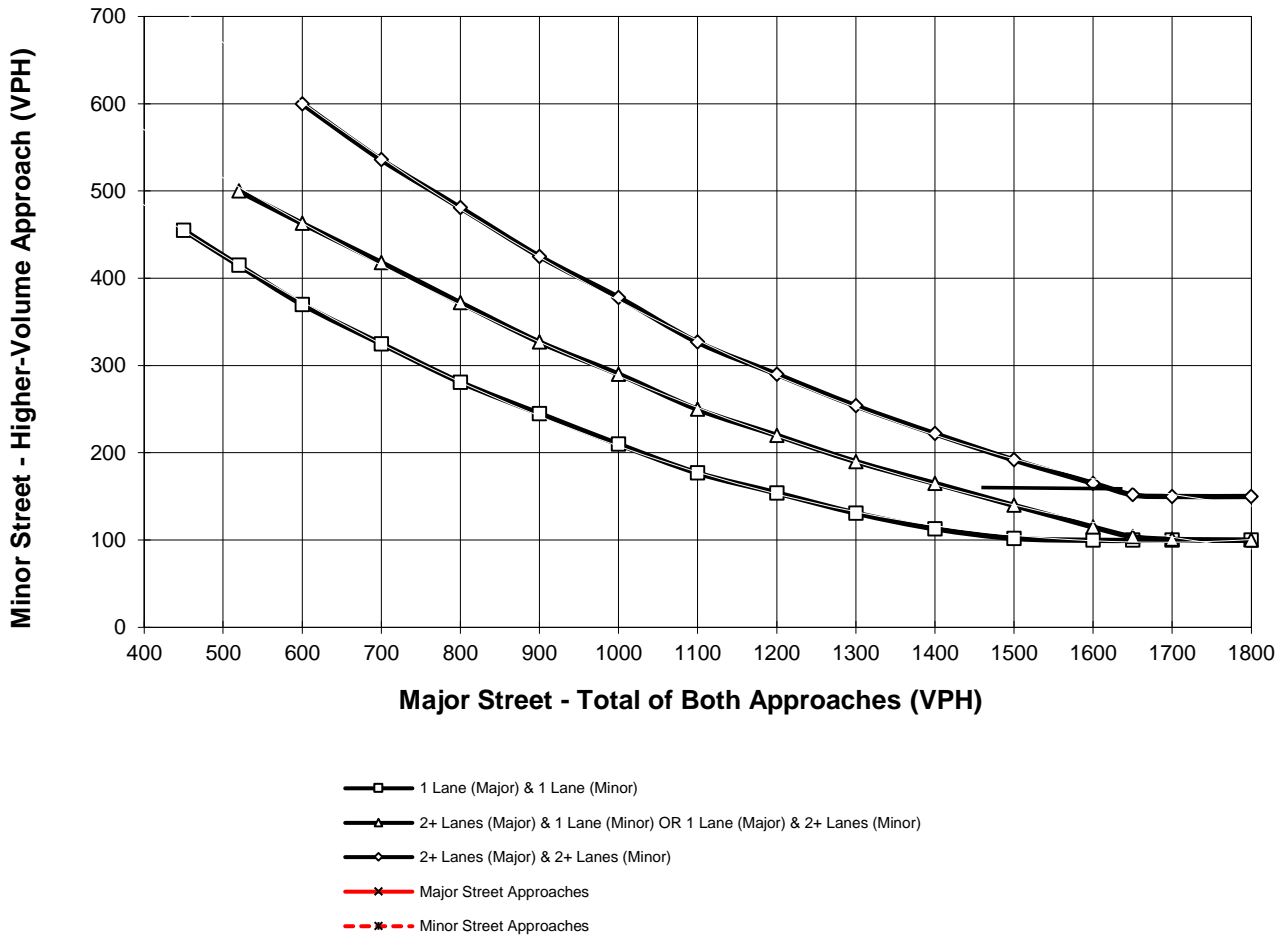
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **329**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 WB Ramps**

High Volume Approach (VPH) = **195**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2



### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

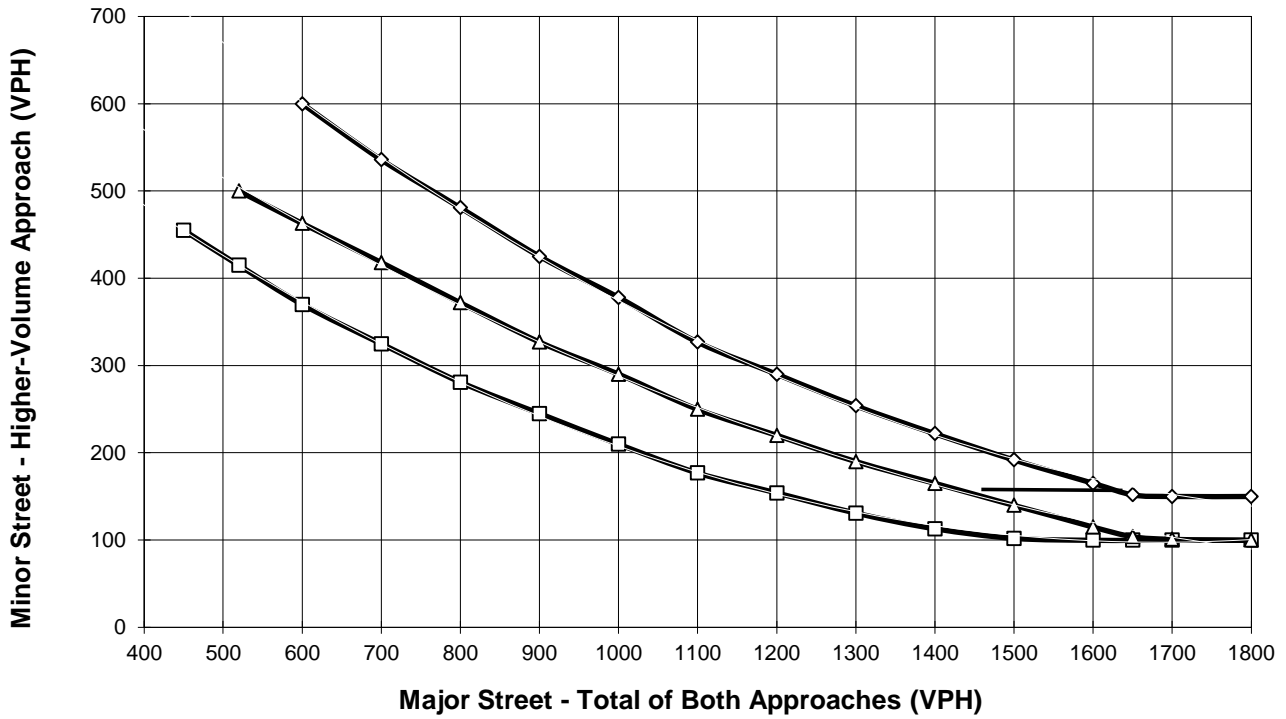
Major Street Name = **I-10 WB Ramps**

Total of Both Approaches (VPH) = **280**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Singleton Rd.**

High Volume Approach (VPH) = **196**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- \*— Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

**Figure 4C-3. Warrant 3, Peak Hour**

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

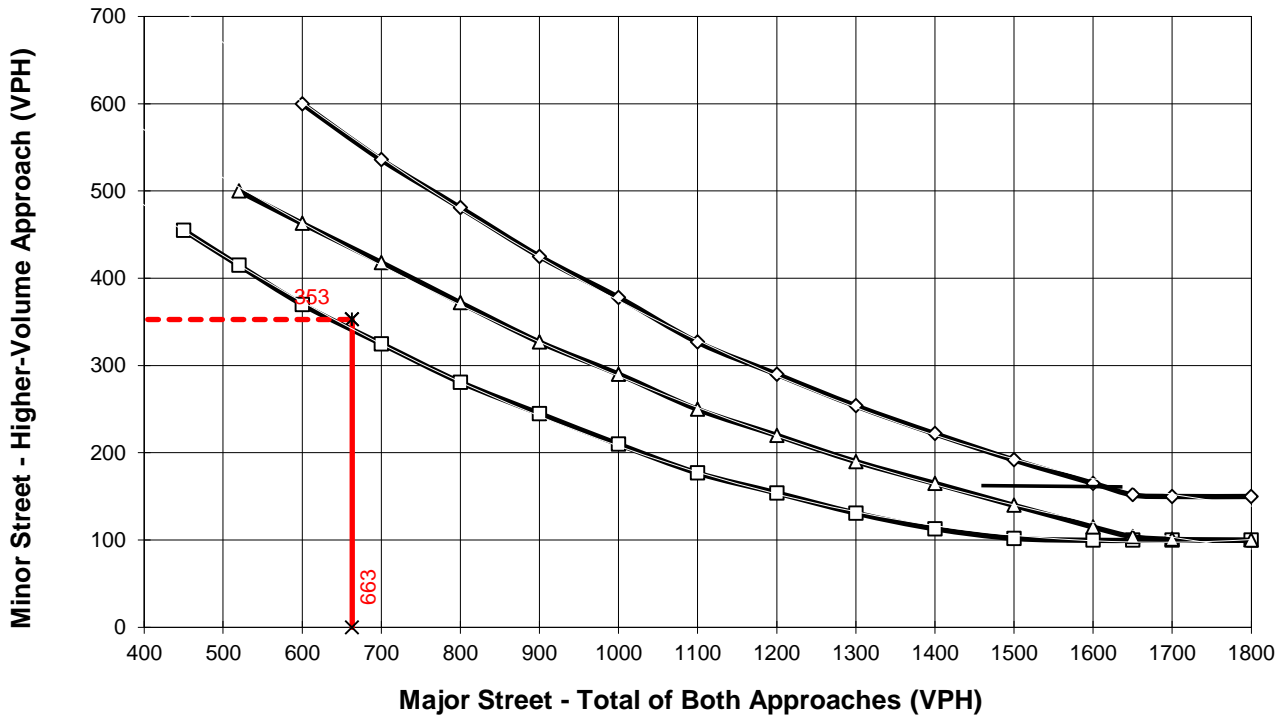
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **663**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Calimesa Bl.**

High Volume Approach (VPH) = **353**  
 Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- \*— Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

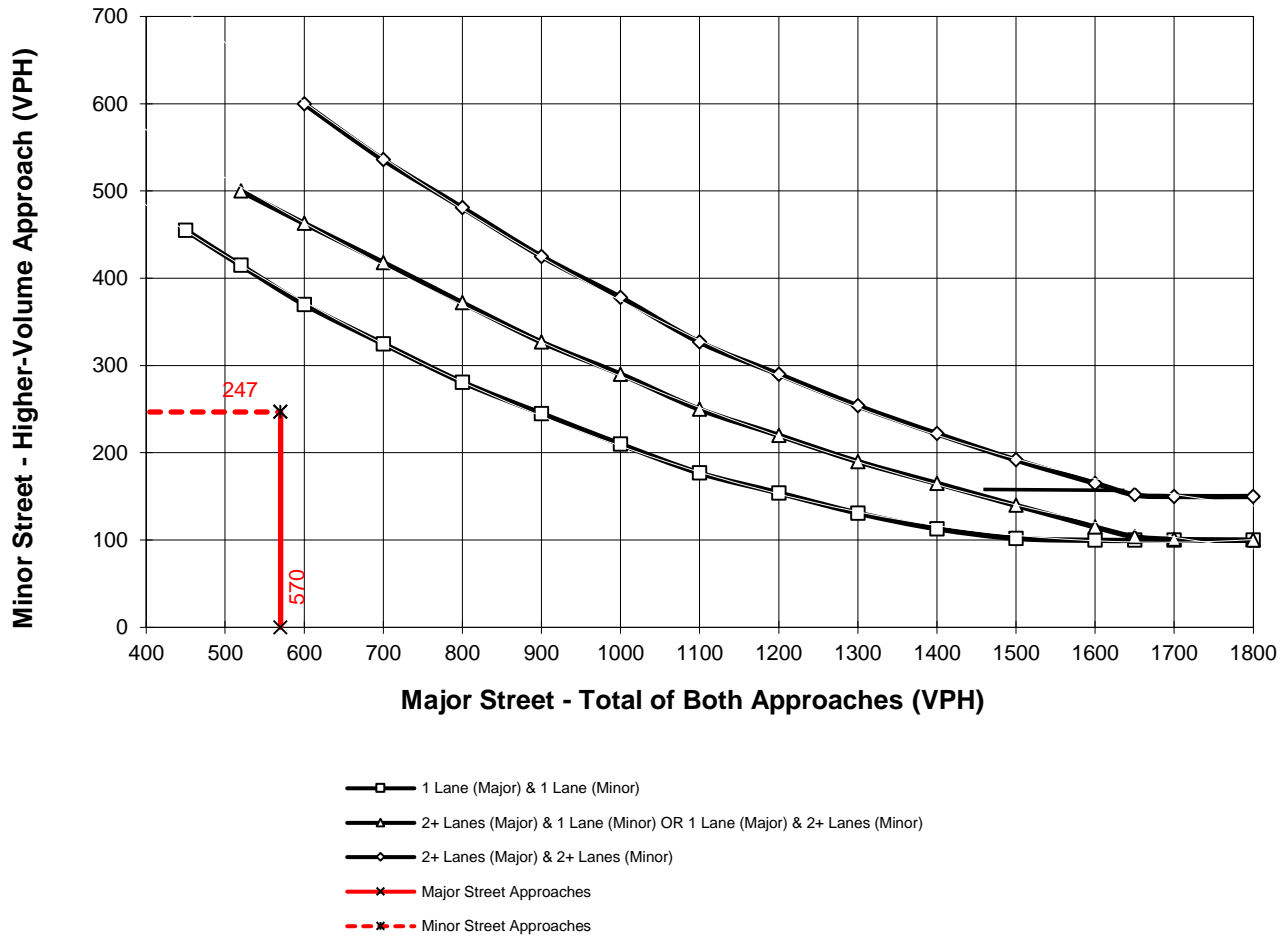
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **570**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Calimesa Bl.**

High Volume Approach (VPH) = **247**  
 Number of Approach Lanes On Minor Street = **1**

#### SIGNAL WARRANT NOT SATISFIED



\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

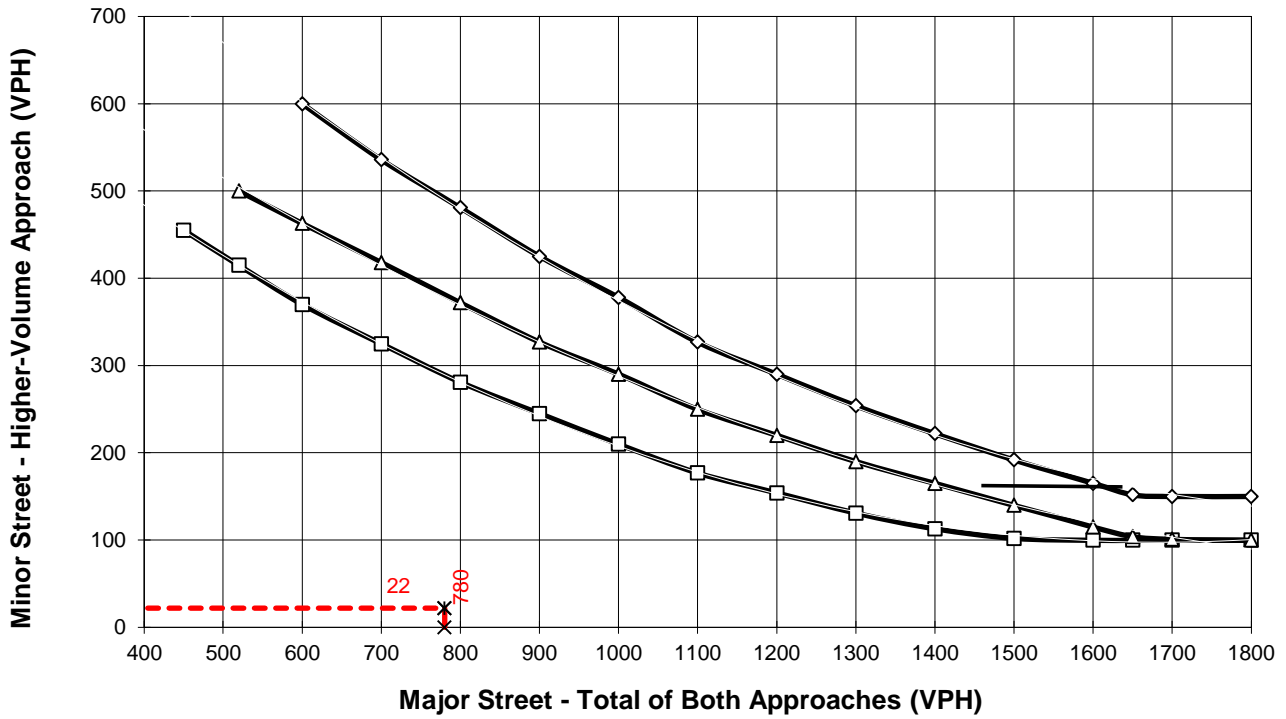
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **780**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Beckwith Av.**

High Volume Approach (VPH) = **22**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - -x- - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

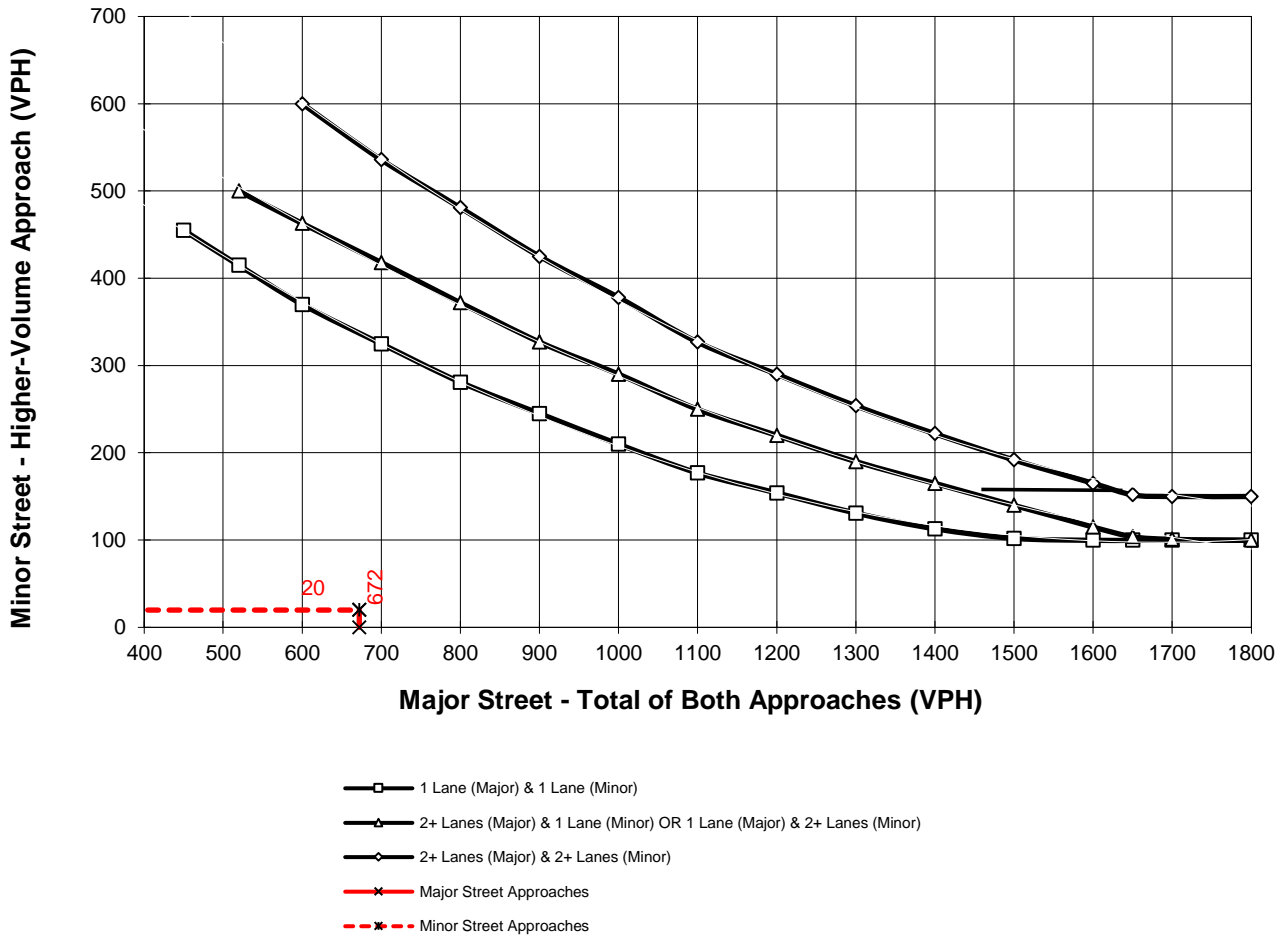
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **672**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Beckwith Av.**

High Volume Approach (VPH) = **20**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

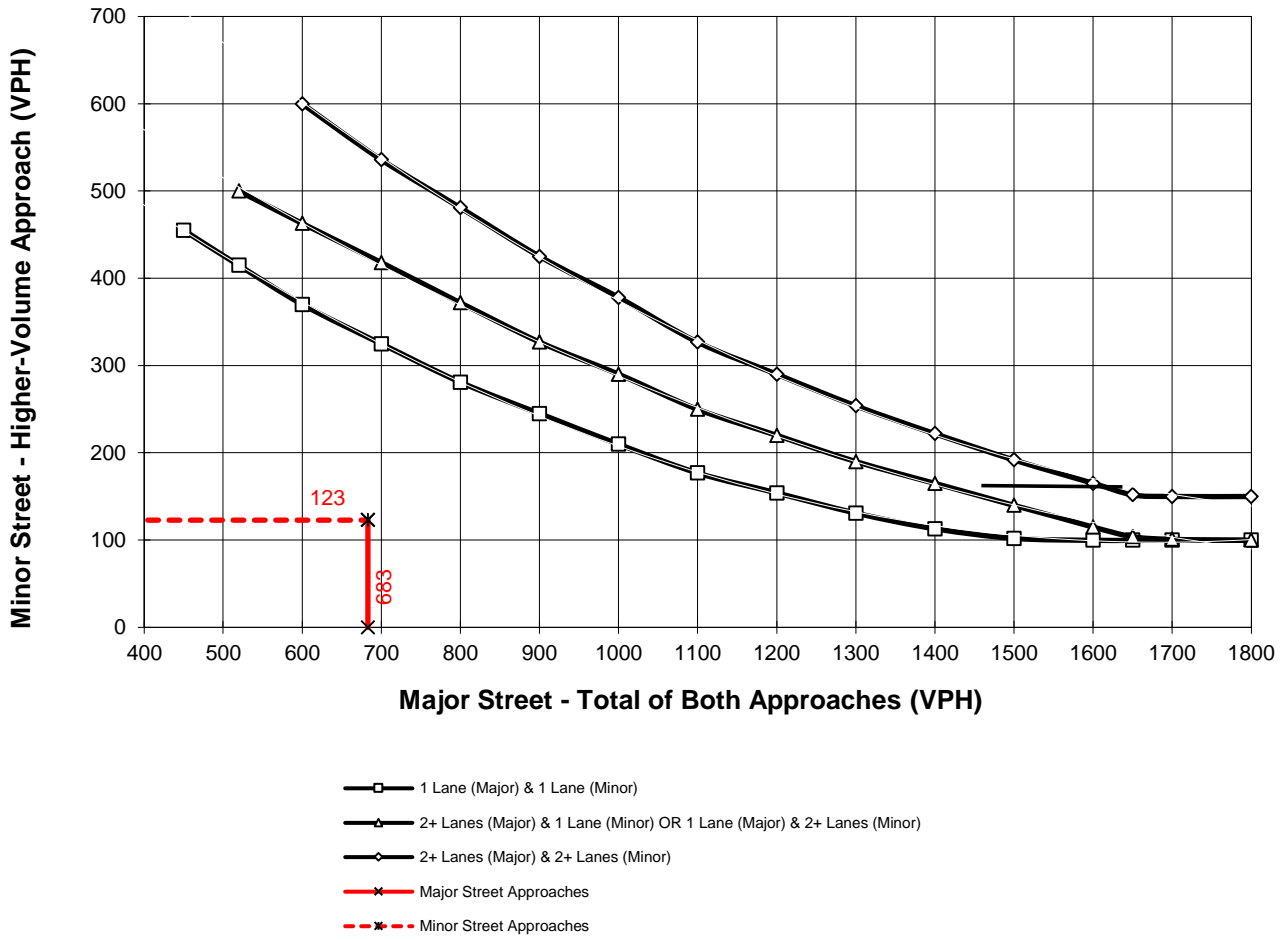
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **683**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Singleton Cyn. Rd.**

High Volume Approach (VPH) = **123**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

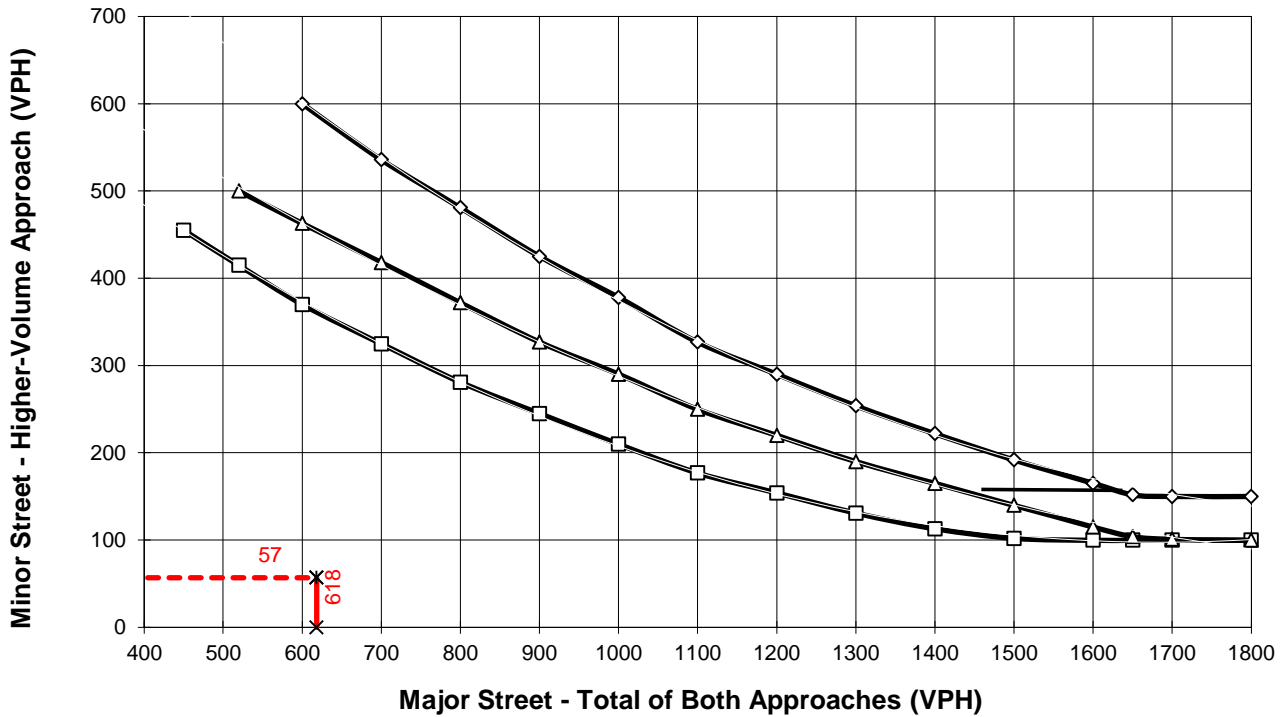
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **618**  
 Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Singleton Cyn. Rd.**

High Volume Approach (VPH) = **57**  
 Number of Approach Lanes On Minor Street = **1**

#### SIGNAL WARRANT NOT SATISFIED



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - -x- - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

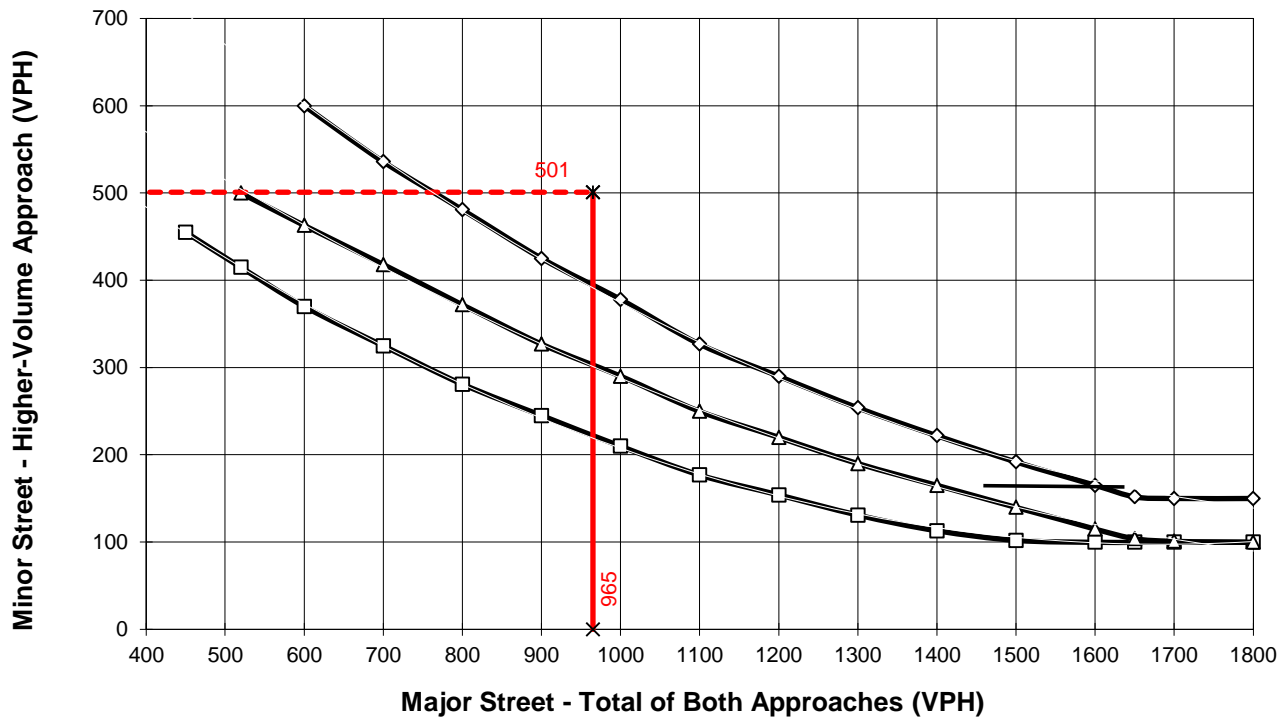
Major Street Name = **Cherry Valley Bl.**

Total of Both Approaches (VPH) = **965**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 EB Ramps**

High Volume Approach (VPH) = **501**  
 Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - -x- - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8



### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

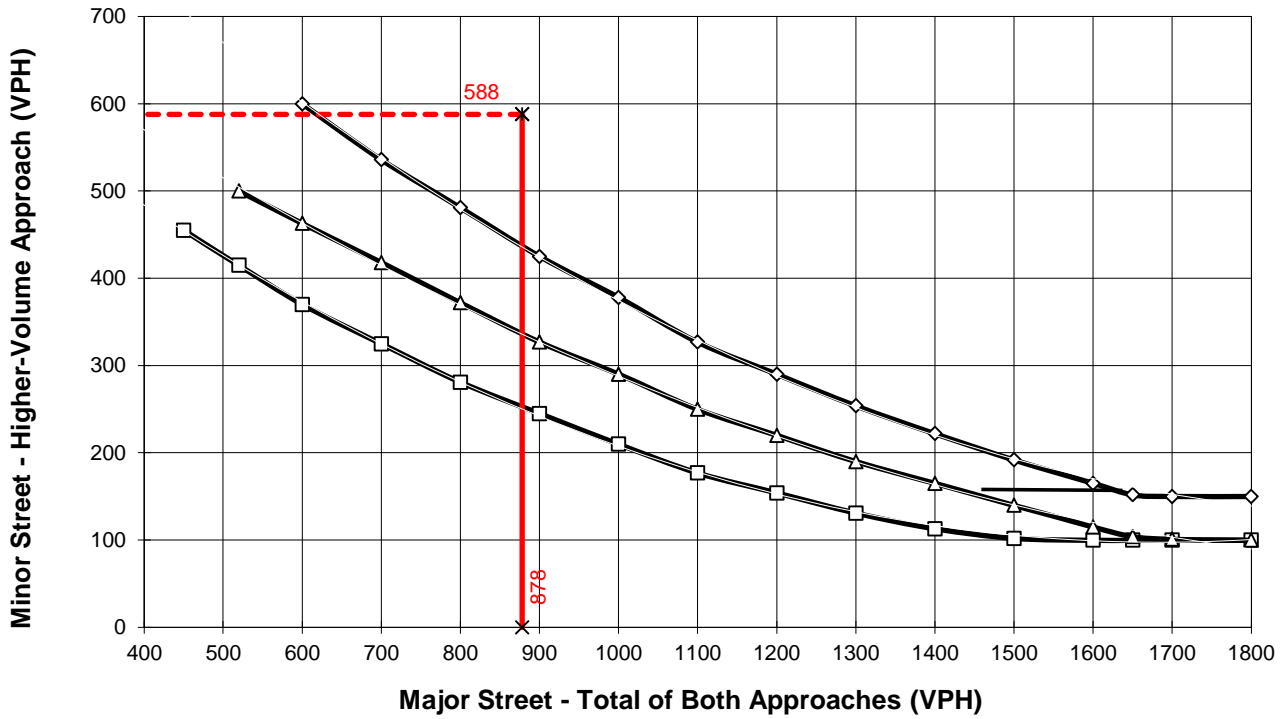
Major Street Name = **I-10 EB Ramps**

Total of Both Approaches (VPH) = **878**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Cherry Valley Bl.**

High Volume Approach (VPH) = **588**  
 Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - -x- - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

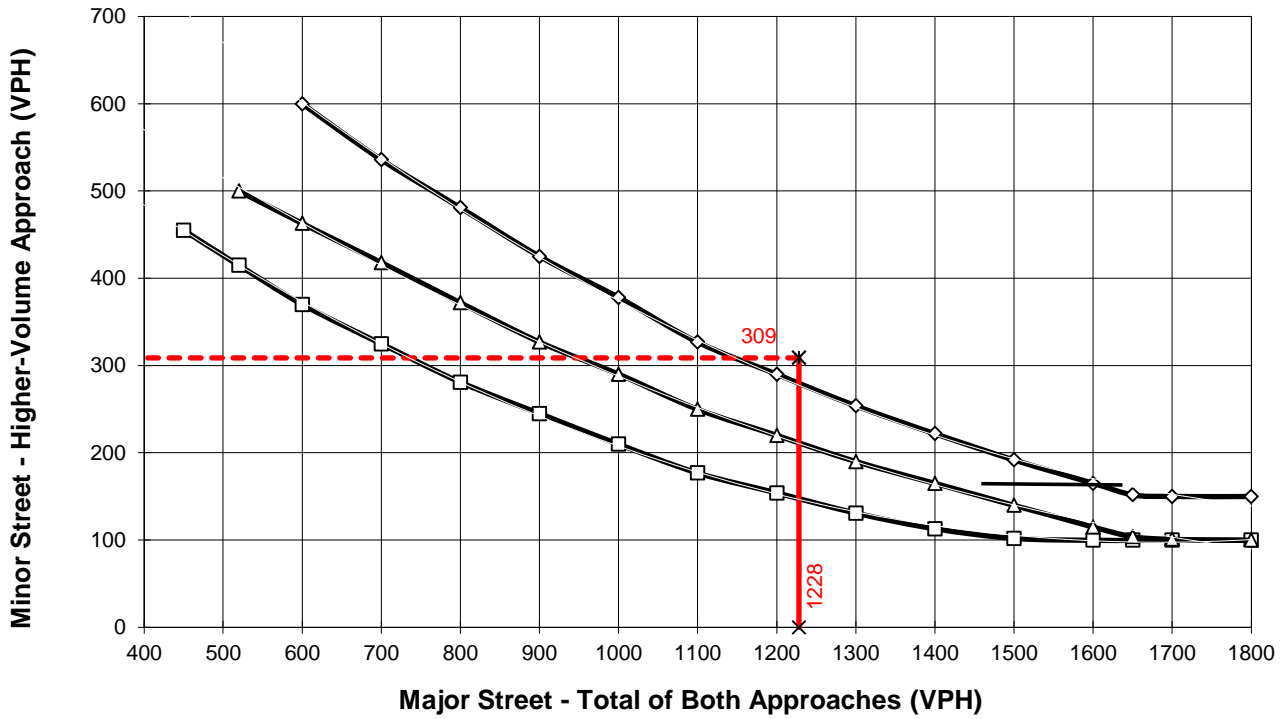
Major Street Name = **Cherry Valley Bl.**

Total of Both Approaches (VPH) = **1,228**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 WB Ramps**

High Volume Approach (VPH) = **309**  
 Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - -x- - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #9

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

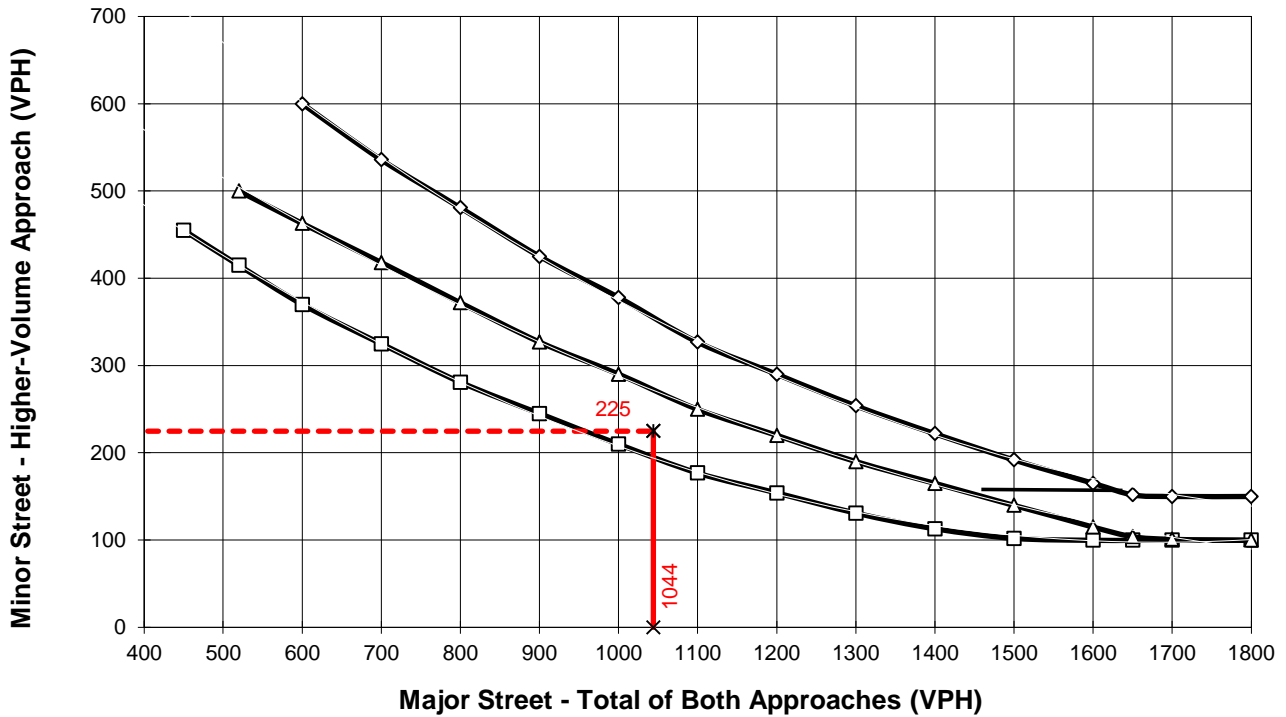
Major Street Name = **Cherry Valley Bl.**

Total of Both Approaches (VPH) = **1,044**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 WB Ramps**

High Volume Approach (VPH) = **225**  
 Number of Approach Lanes On Minor Street = **1**

#### WARRANTED FOR A SIGNAL



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - -x- - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #9

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

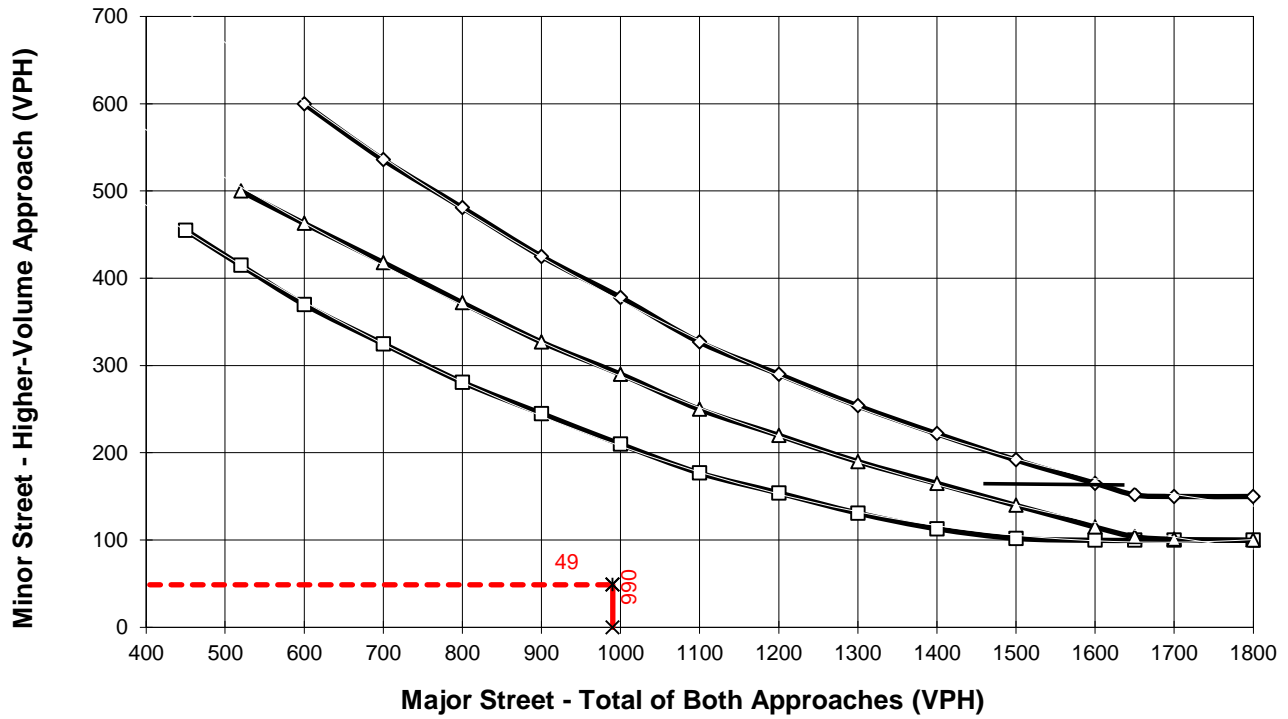
Major Street Name = **Cherry Valley Bl.**

Total of Both Approaches (VPH) = **990**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Calimesa Bl.**

High Volume Approach (VPH) = **49**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - - x - - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #10

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

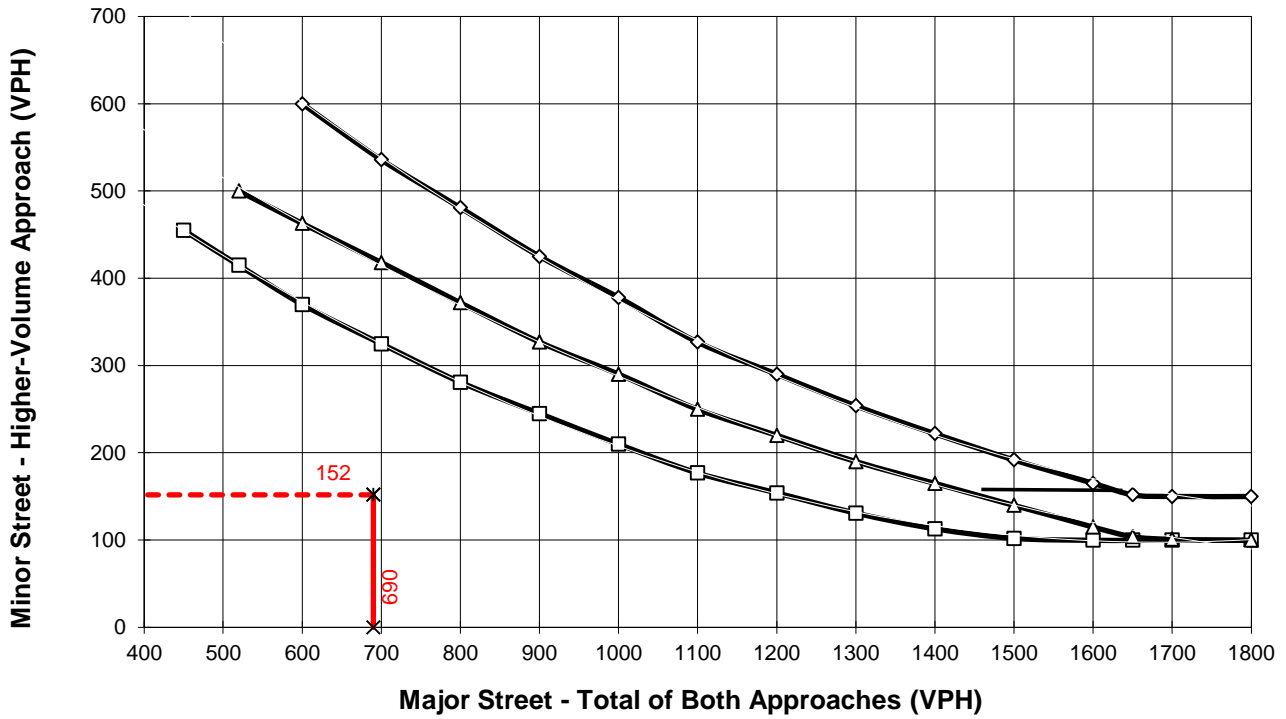
Major Street Name = **Cherry Valley Bl.**

Total of Both Approaches (VPH) = **690**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Calimesa Bl.**

High Volume Approach (VPH) = **152**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - - x - - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #10

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

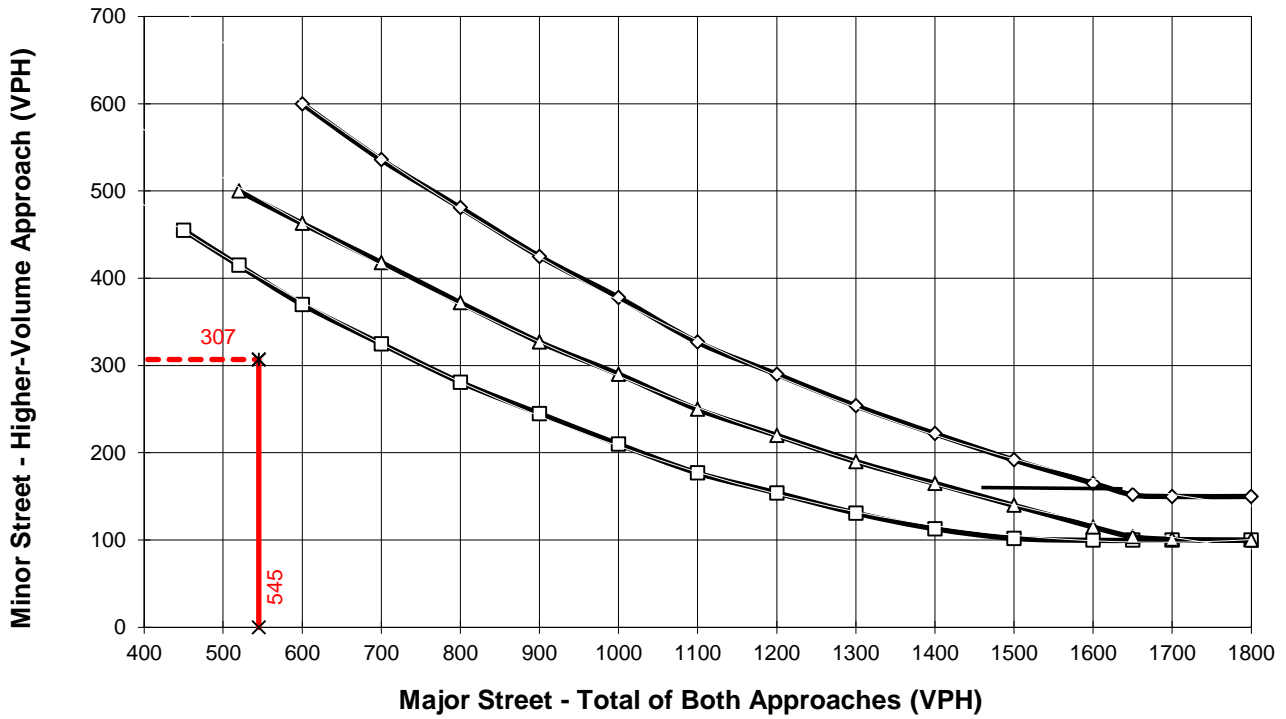
Major Street Name = **Calimesa Bl.**

Total of Both Approaches (VPH) = **545**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 WB off-ramp**

High Volume Approach (VPH) = **307**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- - -x- - - Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #11

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

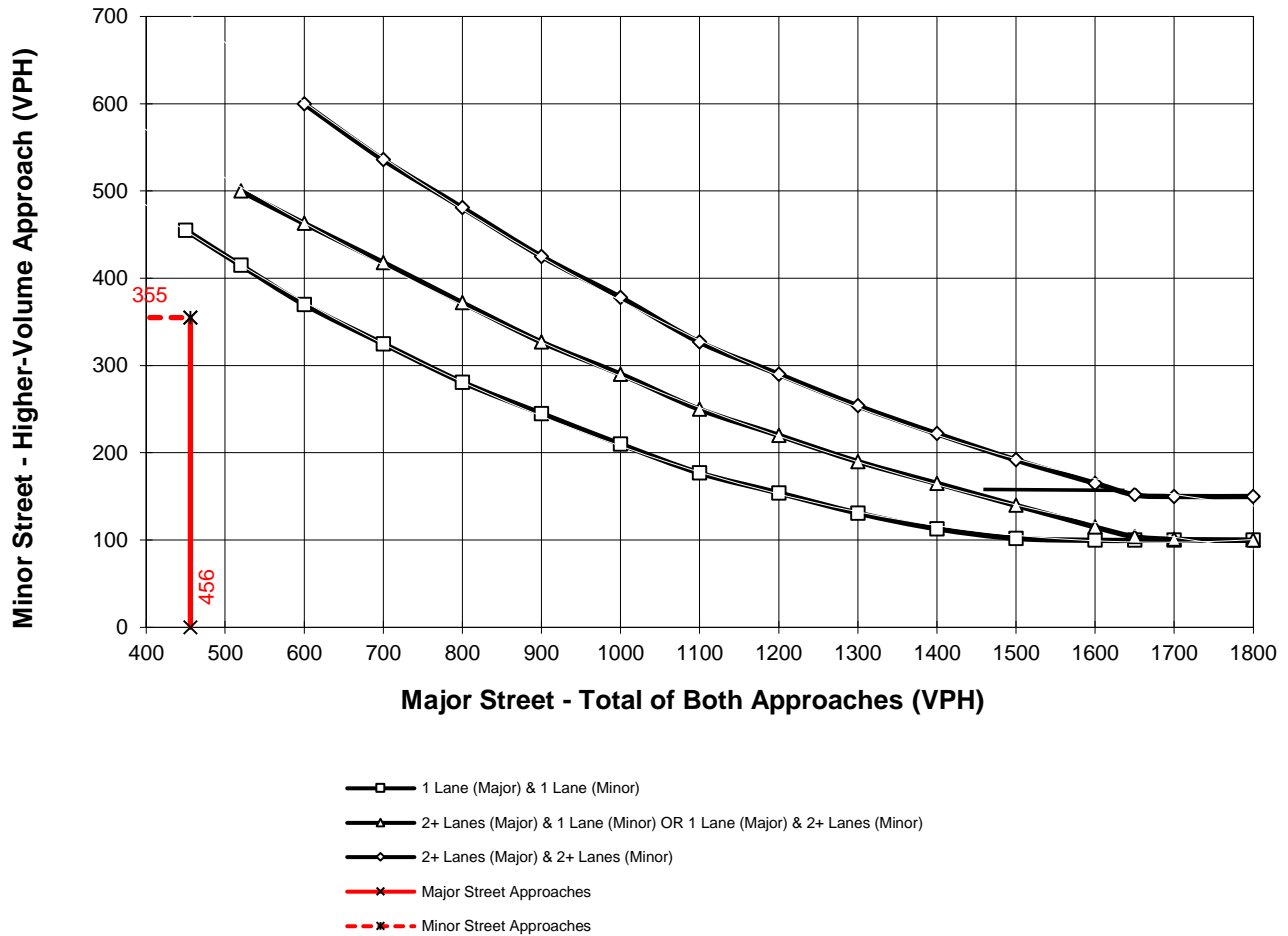
Major Street Name = **Calimesa Bl.**

Total of Both Approaches (VPH) = **456**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **I-10 WB off-ramp**

High Volume Approach (VPH) = **355**  
 Number of Approach Lanes On Minor Street = **1**

#### SIGNAL WARRANT NOT SATISFIED



\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #11

### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

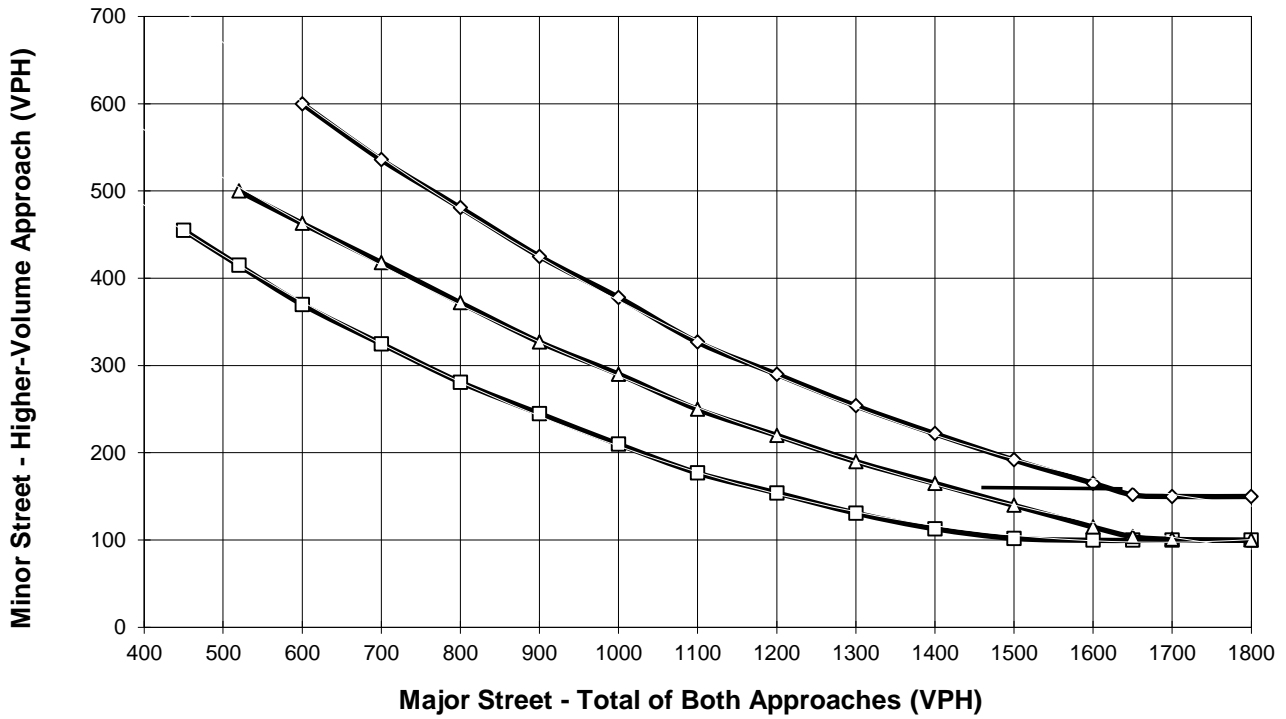
Major Street Name = **Roberts Rd.**

Total of Both Approaches (VPH) = **4**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Singleton Rd.**

High Volume Approach (VPH) = **4**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- \*— Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane



### Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

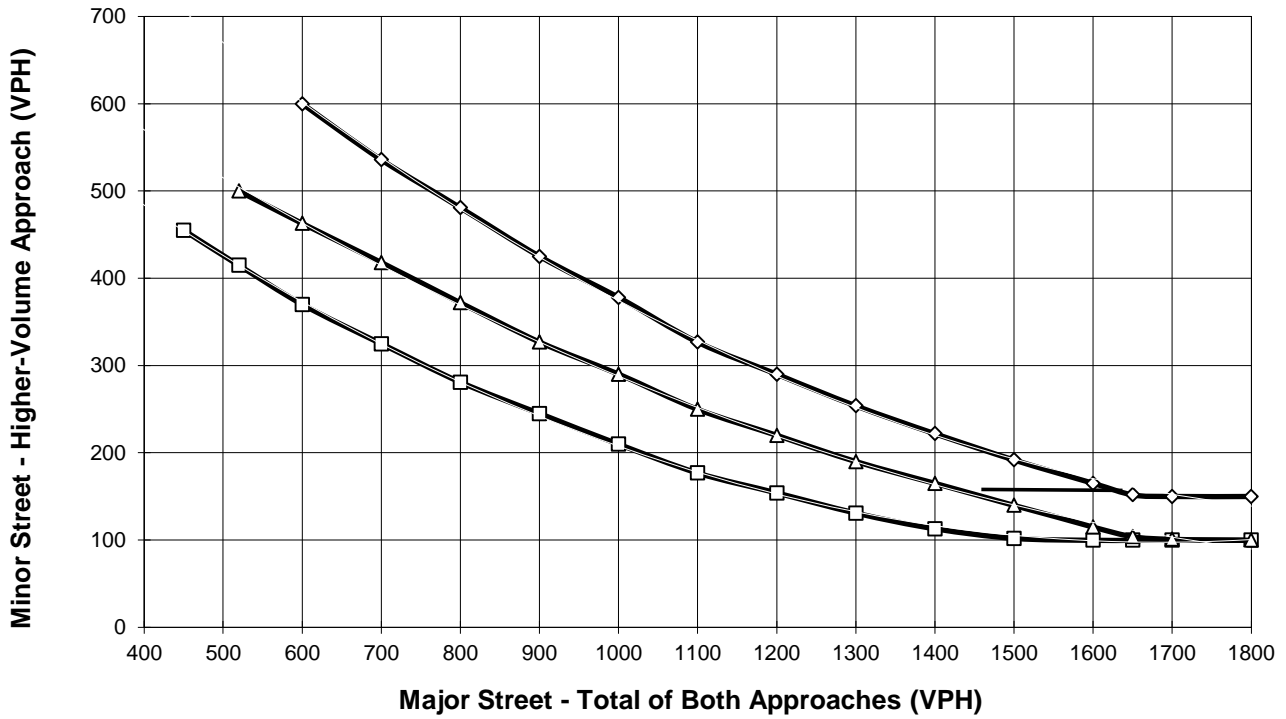
Major Street Name = **Singleton Rd.**

Total of Both Approaches (VPH) = **9**  
 Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Roberts Rd.**

High Volume Approach (VPH) = **3**  
 Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- \*— Minor Street Approaches

\*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #12

**APPENDIX 5.1: OPENING YEAR CUMULATIVE (2025) WITHOUT  
PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS  
WORKSHEETS**

This Page Intentionally Left Blank

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 1: I-10 EB On-Ramp & Singleton Rd.

Intersection												
Int Delay, s/veh	7.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	112	41	340	156	0	0	0	0	30	0	209
Future Vol, veh/h	0	112	41	340	156	0	0	0	0	30	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	123	45	374	171	0	0	0	0	33	0	227

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	168	0	0	1065	1087	171
Stage 1	-	-	-	-	-	-	919	919	-
Stage 2	-	-	-	-	-	-	146	168	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1410	-	0	246	216	873
Stage 1	0	-	-	-	-	0	389	350	-
Stage 2	0	-	-	-	-	0	881	759	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1410	-	-	174	0	873
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	0	-
Stage 1	-	-	-	-	-	-	389	0	-
Stage 2	-	-	-	-	-	-	623	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	5.8	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1410	-	580
HCM Lane V/C Ratio	-	-	0.265	-	0.448
HCM Control Delay (s)	-	-	8.5	0	16.1
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	1.1	-	2.3

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 2: I-10 WB Off-Ramp & Singleton Rd.

Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	70	0	0	384	111	205
Future Vol, veh/h	70	0	0	384	111	205
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	0	0	413	119	220

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	488 75
Stage 1	-	-	-	-	75 -
Stage 2	-	-	-	-	413 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	539 986
Stage 1	-	0	0	-	948 -
Stage 2	-	0	0	-	668 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	539 986
Mov Cap-2 Maneuver	-	-	-	-	539 -
Stage 1	-	-	-	-	948 -
Stage 2	-	-	-	-	668 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	764	-	-
HCM Lane V/C Ratio	0.445	-	-
HCM Control Delay (s)	13.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	2.3	-	-

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 3: Calimesa Bl. & Singleton Rd.

Intersection	
Intersection Delay, s/veh	112.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	77	196	2	23	447	176	5	241	133	64	20	141
Future Vol, veh/h	77	196	2	23	447	176	5	241	133	64	20	141
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	83	211	2	25	481	189	5	259	143	69	22	152
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	28.1	219.8	44.4	22.7
HCM LOS	D	F	E	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	28%	4%	28%
Vol Thru, %	64%	71%	69%	9%
Vol Right, %	35%	1%	27%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	379	275	646	225
LT Vol	5	77	23	64
Through Vol	241	196	447	20
RT Vol	133	2	176	141
Lane Flow Rate	408	296	695	242
Geometry Grp	1	1	1	1
Degree of Util (X)	0.851	0.662	1.415	0.541
Departure Headway (Hd)	8.569	9.061	7.333	9.268
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	428	402	493	392
Service Time	6.569	7.061	5.429	7.268
HCM Lane V/C Ratio	0.953	0.736	1.41	0.617
HCM Control Delay	44.4	28.1	219.8	22.7
HCM Lane LOS	E	D	F	C
HCM 95th-tile Q	8.3	4.6	32.9	3.1

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 4: Beckwith Av. & Singleton Rd.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	381	12	3	625	21	2
Future Vol, veh/h	381	12	3	625	21	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	389	12	3	638	21	2

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	401	0	1039 395
Stage 1	-	-	-	-	395 -
Stage 2	-	-	-	-	644 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1158	-	255 654
Stage 1	-	-	-	-	681 -
Stage 2	-	-	-	-	523 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1158	-	254 654
Mov Cap-2 Maneuver	-	-	-	-	254 -
Stage 1	-	-	-	-	681 -
Stage 2	-	-	-	-	521 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	268	-	-	1158	-
HCM Lane V/C Ratio	0.088	-	-	0.003	-
HCM Control Delay (s)	19.7	-	-	8.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 5: Singleton Cyn. Rd. & Singleton Rd.

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	34	344	4	1	492	13	7	1	1	21	1	108
Future Vol, veh/h	34	344	4	1	492	13	7	1	1	21	1	108
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	362	4	1	518	14	7	1	1	22	1	114
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.9	12.8	10.1	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	78%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	11%	0%	100%	97%	0%	100%	93%	1%
Vol Right, %	11%	0%	0%	3%	0%	0%	7%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	34	229	119	1	328	177	130
LT Vol	7	34	0	0	1	0	0	21
Through Vol	1	0	229	115	0	328	164	1
RT Vol	1	0	0	4	0	0	13	108
Lane Flow Rate	9	36	241	125	1	345	186	137
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.019	0.061	0.376	0.194	0.002	0.527	0.282	0.233
Departure Headway (Hd)	7.235	6.119	5.614	5.59	6.004	5.5	5.448	6.121
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	495	587	642	643	600	659	663	587
Service Time	4.977	3.844	3.339	3.315	3.704	3.2	3.148	3.853
HCM Lane V/C Ratio	0.018	0.061	0.375	0.194	0.002	0.524	0.281	0.233
HCM Control Delay	10.1	9.2	11.7	9.7	8.7	14.2	10.3	10.7
HCM Lane LOS	B	A	B	A	A	B	B	B
HCM 95th-tile Q	0.1	0.2	1.7	0.7	0	3.1	1.2	0.9



Timings

Opening Year Cumulative (2025) Without Project - AM Peak Hour

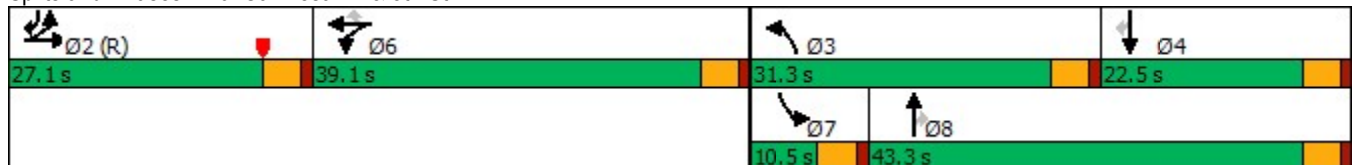
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	181	17	318	20	223	458	162	23	142	308
Future Volume (vph)	131	181	17	318	20	223	458	162	23	142	308
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	28.8	28.8	28.8	22.1	48.4	48.4	6.4	28.5	55.6
Actuated g/C Ratio	0.19	0.19	0.24	0.24	0.24	0.18	0.40	0.40	0.05	0.24	0.46
v/c Ratio	0.45	0.44	0.05	0.84	0.05	0.80	0.38	0.28	0.29	0.38	0.43
Control Delay	48.7	42.9	32.6	59.9	0.2	65.0	28.3	15.3	62.5	44.8	11.6
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	48.7	42.9	32.6	59.9	0.2	65.0	28.3	15.3	62.5	44.8	11.6
LOS	D	D	C	E	A	E	C	B	E	D	B
Approach Delay		44.8		55.1			35.5			24.0	
Approach LOS		D		E			D			C	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 37.9	Intersection LOS: D
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 6: Calimesa Bl. & 5th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	181	42	17	318	20	223	458	162	23	142	308
Future Volume (veh/h)	131	181	42	17	318	20	223	458	162	23	142	308
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	234	49	20	374	24	262	539	191	27	167	362
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	494	835	172	400	420	356	293	1149	512	44	343	730
Arrive On Green	0.28	0.28	0.28	0.22	0.22	0.22	0.16	0.32	0.32	0.02	0.18	0.18
Sat Flow, veh/h	1781	3011	619	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	139	144	139	20	374	24	262	539	191	27	167	362
Grp Sat Flow(s),veh/h/ln	1781	1870	1759	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.5	11.1	1.8	9.6	19.2
Cycle Q Clear(g_c), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.5	11.1	1.8	9.6	19.2
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	494	519	488	400	420	356	293	1149	512	44	343	730
V/C Ratio(X)	0.28	0.28	0.29	0.05	0.89	0.07	0.89	0.47	0.37	0.61	0.49	0.50
Avail Cap(c_a), veh/h	494	519	488	514	539	457	398	1149	512	89	343	730
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	34.0	34.0	34.0	36.5	45.1	36.6	49.1	32.4	31.2	57.9	43.9	22.6
Incr Delay (d2), s/veh	1.4	1.3	1.5	0.1	14.0	0.1	17.6	1.4	2.1	13.0	4.9	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.5	3.4	0.5	12.5	0.6	9.0	6.4	4.5	1.0	4.9	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	35.3	35.5	36.5	59.1	36.7	66.7	33.8	33.3	71.0	48.8	25.0
LnGrp LOS	D	D	D	D	E	D	E	C	C	E	D	C
Approach Vol, veh/h		422			418			992			556	
Approach Delay, s/veh		35.4			56.7			42.4			34.4	
Approach LOS		D			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		37.8	24.2	26.5		31.5	7.5	43.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		9.5	19.3	21.2		25.3	3.8	16.5				
Green Ext Time (p_c), s		1.7	0.5	0.0		1.7	0.0	4.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			41.8									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	306	414	21	127	368	338	12	23	121	468	21
Future Volume (vph)	306	414	21	127	368	338	12	23	121	468	21
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	25.5	25.5	9.5	24.0	24.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	18.3%	42.5%	42.5%	15.8%	40.0%	40.0%	41.7%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	6.5	21.0	21.0	5.0	19.5	19.5	20.5	20.5	20.5	20.5	20.5
Actuated g/C Ratio	0.11	0.35	0.35	0.08	0.32	0.32	0.34	0.34	0.34	0.34	0.34
v/c Ratio	1.76	0.37	0.04	0.95	0.35	0.49	0.03	0.04	0.21	0.21	1.54
Control Delay	386.0	15.6	0.1	96.8	16.5	4.5	13.6	13.5	4.2	4.2	274.7
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	386.0	15.6	0.1	96.8	16.5	4.5	13.6	13.5	4.2	4.2	274.7
LOS	F	B	A	F	B	A	B	B	A	A	F
Approach Delay		168.0			23.9			6.2			274.7
Approach LOS		F			C			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.76  
 Intersection Signal Delay: 139.6  
 Intersection LOS: F  
 Intersection Capacity Utilization 85.6%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑	↗	↖	↑	↗		↕	
Traffic Volume (veh/h)	306	414	21	127	368	338	12	23	121	468	21	221
Future Volume (veh/h)	306	414	21	127	368	338	12	23	121	468	21	221
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	336	455	23	140	404	371	13	25	133	514	23	243
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	1244	555	148	1155	515	542	639	542	392	13	138
Arrive On Green	0.11	0.35	0.35	0.08	0.32	0.32	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1113	1870	1585	857	38	405
Grp Volume(v), veh/h	336	455	23	140	404	371	13	25	133	780	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1113	1870	1585	1301	0	0
Q Serve(g_s), s	6.5	5.7	0.6	4.7	5.2	12.4	0.0	0.5	3.6	20.0	0.0	0.0
Cycle Q Clear(g_c), s	6.5	5.7	0.6	4.7	5.2	12.4	0.4	0.5	3.6	20.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.66		0.31
Lane Grp Cap(c), veh/h	193	1244	555	148	1155	515	542	639	542	544	0	0
V/C Ratio(X)	1.74	0.37	0.04	0.94	0.35	0.72	0.02	0.04	0.25	1.43	0.00	0.00
Avail Cap(c_a), veh/h	193	1244	555	148	1155	515	542	639	542	544	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	14.5	12.9	27.4	15.4	17.8	13.1	13.2	14.2	21.8	0.0	0.0
Incr Delay (d2), s/veh	354.2	0.8	0.1	56.9	0.8	8.4	0.1	0.1	1.1	205.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.5	2.2	0.2	4.2	2.0	5.1	0.1	0.2	1.3	38.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	380.9	15.4	13.0	84.2	16.3	26.3	13.2	13.3	15.3	227.5	0.0	0.0
LnGrp LOS	F	B	B	F	B	C	B	B	B	F	A	A
Approach Vol, veh/h		814			915			171			780	
Approach Delay, s/veh		166.2			30.7			14.8			227.5	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	25.5		25.0	11.0	24.0		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	21.0		20.5	6.5	19.5		20.5				
Max Q Clear Time (g_c+I1), s	6.7	7.7		22.5	8.5	14.4		5.6				
Green Ext Time (p_c), s	0.0	2.4		0.0	0.0	1.8		0.5				

Intersection Summary

HCM 6th Ctrl Delay	128.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 8: I-10 EB Ramps & Cherry Valley Bl.

**Intersection**

Intersection Delay, s/veh 33.4  
 Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	806	197	171	417	0	0	0	0	291	0	415
Future Vol, veh/h	0	806	197	171	417	0	0	0	0	291	0	415
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	867	212	184	448	0	0	0	0	313	0	446
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	509.1	160.3	227.9
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	29%	41%
Vol Thru, %	80%	71%	0%
Vol Right, %	20%	0%	59%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1003	588	706
LT Vol	0	171	291
Through Vol	806	417	0
RT Vol	197	0	415
Lane Flow Rate	1078	632	759
Geometry Grp	1	1	1
Degree of Util (X)	2.071	1.245	1.426
Departure Headway (Hd)	8.419	9.795	8.365
Convergence, Y/N	Yes	Yes	Yes
Cap	442	379	440
Service Time	6.419	7.795	6.365
HCM Lane V/C Ratio	2.439	1.668	1.725
HCM Control Delay	509.1	160.3	227.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	62.6	19.9	30.5

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 9: I-10 WB Ramps & Cherry Valley Bl.

**Intersection**

Intersection Delay, s/veh 436.5  
 Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	626	469	0	0	404	549	185	11	281	0	0	0
Future Vol, veh/h	626	469	0	0	404	549	185	11	281	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	673	504	0	0	434	590	199	12	302	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	611.5	420.9	65.8
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	57%	0%
Vol Thru, %	2%	43%	42%
Vol Right, %	59%	0%	58%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	477	1095	953
LT Vol	185	626	0
Through Vol	11	469	404
RT Vol	281	0	549
Lane Flow Rate	513	1177	1025
Geometry Grp	1	1	1
Degree of Util (X)	0.962	2.302	1.872
Departure Headway (Hd)	8.848	8.279	8.332
Convergence, Y/N	Yes	Yes	Yes
Cap	415	447	451
Service Time	6.848	6.279	6.332
HCM Lane V/C Ratio	1.236	2.633	2.273
HCM Control Delay	65.8	611.5	420.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	11.2	75.7	52.8

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 10: Cherry Valley Bl. & Calimesa Bl.

**Intersection**

Int Delay, s/veh 115.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	282	468	911	132	36	41
Future Vol, veh/h	282	468	911	132	36	41
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	328	544	1059	153	42	48

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1212	0	0 2336 1136
Stage 1	-	-	- 1136 -
Stage 2	-	-	- 1200 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	576	-	- ~40 246
Stage 1	-	-	- 306 -
Stage 2	-	-	- 285 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	576	-	- ~7 246
Mov Cap-2 Maneuver	-	-	- ~7 -
Stage 1	-	-	- 56 -
Stage 2	-	-	- 285 -

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	\$ 2739.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	576	-	-	-	15
HCM Lane V/C Ratio	0.569	-	-	-	5.969
HCM Control Delay (s)	19.2	0	-	-	\$ 2739.5
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	3.6	-	-	-	12.1

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 11: Calimesa Bl. & I-10 WB Off-Ramp

Intersection	
Intersection Delay, s/veh	26.9
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	324	2	0	519	202	0
Future Vol, veh/h	324	2	0	519	202	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	360	2	0	577	224	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	19.8	36.9	12.9
HCM LOS	C	E	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	519	326	202
LT Vol	0	324	0
Through Vol	519	0	202
RT Vol	0	2	0
Lane Flow Rate	577	362	224
Geometry Grp	1	1	1
Degree of Util (X)	0.887	0.635	0.379
Departure Headway (Hd)	5.538	6.307	6.078
Convergence, Y/N	Yes	Yes	Yes
Cap	652	569	588
Service Time	3.605	4.376	4.166
HCM Lane V/C Ratio	0.885	0.636	0.381
HCM Control Delay	36.9	19.8	12.9
HCM Lane LOS	E	C	B
HCM 95th-tile Q	10.8	4.5	1.8



HCM 6th TWSC Opening Year Cumulative (2025) Without Project - AM Peak Hour  
 12: Roberts Rd. & Singleton Rd.

Intersection						
Int Delay, s/veh	7.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	97	55	22	70	36	9
Future Vol, veh/h	97	55	22	70	36	9
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	194	110	44	140	72	18

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	276	114	0	0	184	0
Stage 1	114	-	-	-	-	-
Stage 2	162	-	-	-	-	-
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	714	939	-	-	1391	-
Stage 1	911	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	677	939	-	-	1391	-
Mov Cap-2 Maneuver	677	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	822	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	6.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	753	1391
HCM Lane V/C Ratio	-	-	0.404	0.052
HCM Control Delay (s)	-	-	13	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	2	0.2

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 1: I-10 EB On-Ramp & Singleton Rd.

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	295	141	202	109	0	0	0	0	66	0	122
Future Vol, veh/h	0	295	141	202	109	0	0	0	0	66	0	122
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	324	155	222	120	0	0	0	0	72	0	133

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	479	0	0		966	1043	120
Stage 1	-	-	-	-	-	-		564	564	-
Stage 2	-	-	-	-	-	-		402	479	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1083	-	0		282	229	931
Stage 1	0	-	-	-	-	0		569	508	-
Stage 2	0	-	-	-	-	0		676	555	-
Platoon blocked, %	-	-	-	-	-	-		-	-	-
Mov Cap-1 Maneuver	-	-	-	1083	-	-		220	0	931
Mov Cap-2 Maneuver	-	-	-	-	-	-		220	0	-
Stage 1	-	-	-	-	-	-		569	0	-
Stage 2	-	-	-	-	-	-		527	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	6	20.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1083	-	436
HCM Lane V/C Ratio	-	-	0.205	-	0.469
HCM Control Delay (s)	-	-	9.2	0	20.3
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.8	-	2.4

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 2: I-10 WB Off-Ramp & Singleton Rd.

Intersection						
Int Delay, s/veh	6.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	121	0	0	249	63	294
Future Vol, veh/h	121	0	0	249	63	294
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	132	0	0	271	68	320

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	403 132
Stage 1	-	-	-	-	132 -
Stage 2	-	-	-	-	271 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	603 917
Stage 1	-	0	0	-	894 -
Stage 2	-	0	0	-	775 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	603 917
Mov Cap-2 Maneuver	-	-	-	-	603 -
Stage 1	-	-	-	-	894 -
Stage 2	-	-	-	-	775 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	840	-	-
HCM Lane V/C Ratio	0.462	-	-
HCM Control Delay (s)	12.9	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	2.5	-	-

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 3: Calimesa Bl. & Singleton Rd.

Intersection	
Intersection Delay, s/veh	31.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	91	319	6	49	305	72	6	47	17	159	105	137
Future Vol, veh/h	91	319	6	49	305	72	6	47	17	159	105	137
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	94	329	6	51	314	74	6	48	18	164	108	141
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	33.2	33.2	12.9	30.9
HCM LOS	D	D	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	22%	12%	40%
Vol Thru, %	67%	77%	72%	26%
Vol Right, %	24%	1%	17%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	416	426	401
LT Vol	6	91	49	159
Through Vol	47	319	305	105
RT Vol	17	6	72	137
Lane Flow Rate	72	429	439	413
Geometry Grp	1	1	1	1
Degree of Util (X)	0.164	0.813	0.817	0.788
Departure Headway (Hd)	8.171	6.825	6.701	6.86
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	437	532	540	529
Service Time	6.256	4.869	4.747	4.9
HCM Lane V/C Ratio	0.165	0.806	0.813	0.781
HCM Control Delay	12.9	33.2	33.2	30.9
HCM Lane LOS	B	D	D	D
HCM 95th-tile Q	0.6	7.9	8.1	7.3

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 4: Beckwith Av. & Singleton Rd.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	466	29	5	409	17	4
Future Vol, veh/h	466	29	5	409	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	491	31	5	431	18	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	522	0	948 507
Stage 1	-	-	-	-	507 -
Stage 2	-	-	-	-	441 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1044	-	289 566
Stage 1	-	-	-	-	605 -
Stage 2	-	-	-	-	648 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1044	-	288 566
Mov Cap-2 Maneuver	-	-	-	-	288 -
Stage 1	-	-	-	-	605 -
Stage 2	-	-	-	-	645 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	318	-	-	1044	-
HCM Lane V/C Ratio	0.07	-	-	0.005	-
HCM Control Delay (s)	17.2	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 5: Singleton Cyn. Rd. & Singleton Rd.

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↘			↕↘	
Traffic Vol, veh/h	89	382	1	1	352	14	1	1	2	17	1	42
Future Vol, veh/h	89	382	1	1	352	14	1	1	2	17	1	42
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	93	398	1	1	367	15	1	1	2	18	1	44
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10	10.1	9	9.4
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	28%
Vol Thru, %	25%	0%	100%	99%	0%	100%	89%	2%
Vol Right, %	50%	0%	0%	1%	0%	0%	11%	70%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	89	255	128	1	235	131	60
LT Vol	1	89	0	0	1	0	0	17
Through Vol	1	0	255	127	0	235	117	1
RT Vol	2	0	0	1	0	0	14	42
Lane Flow Rate	4	93	265	134	1	244	137	62
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.007	0.143	0.373	0.188	0.002	0.352	0.194	0.104
Departure Headway (Hd)	6.215	5.566	5.064	5.059	5.682	5.18	5.105	5.977
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	643	708	707	629	692	700	596
Service Time	3.998	3.311	2.809	2.804	3.428	2.926	2.852	3.747
HCM Lane V/C Ratio	0.007	0.145	0.374	0.19	0.002	0.353	0.196	0.104
HCM Control Delay	9	9.2	10.8	9	8.4	10.7	9.1	9.4
HCM Lane LOS	A	A	B	A	A	B	A	A
HCM 95th-tile Q	0	0.5	1.7	0.7	0	1.6	0.7	0.3

Timings

Opening Year Cumulative (2025) Without Project - PM Peak Hour

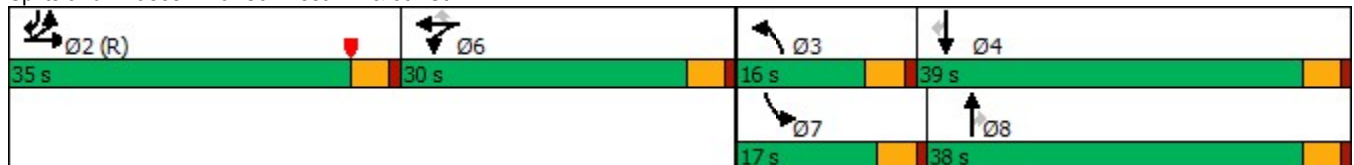
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	94	90	40	189	28	82	351	171	32	291	339
Future Volume (vph)	94	90	40	189	28	82	351	171	32	291	339
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	18.3	18.3	18.3	10.5	49.6	49.6	7.8	42.7	77.7
Actuated g/C Ratio	0.25	0.25	0.15	0.15	0.15	0.09	0.41	0.41	0.06	0.36	0.65
v/c Ratio	0.22	0.23	0.16	0.71	0.09	0.56	0.26	0.25	0.30	0.47	0.32
Control Delay	37.1	19.5	43.2	61.4	0.6	66.6	26.1	12.0	59.4	34.6	2.6
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	37.1	19.5	43.2	61.4	0.6	66.6	26.1	12.0	59.4	34.6	2.6
LOS	D	B	D	E	A	E	C	B	E	C	A
Approach Delay		25.0		51.9			27.6			19.4	
Approach LOS		C		D			C			B	
























Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 27.7	Intersection LOS: C
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	90	86	40	189	28	82	351	171	32	291	339
Future Volume (veh/h)	94	90	86	40	189	28	82	351	171	32	291	339
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	96	102	91	43	201	30	87	373	182	34	310	361
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	661	710	574	231	243	206	110	1141	509	50	538	1044
Arrive On Green	0.37	0.37	0.37	0.13	0.13	0.13	0.06	0.32	0.32	0.03	0.29	0.29
Sat Flow, veh/h	1781	1914	1548	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	96	99	94	43	201	30	87	373	182	34	310	361
Grp Sat Flow(s),veh/h/ln	1781	1870	1592	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.3	4.2	4.7	2.6	12.6	2.0	5.8	9.6	10.6	2.3	17.0	12.1
Cycle Q Clear(g_c), s	4.3	4.2	4.7	2.6	12.6	2.0	5.8	9.6	10.6	2.3	17.0	12.1
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	661	694	591	231	243	206	110	1141	509	50	538	1044
V/C Ratio(X)	0.15	0.14	0.16	0.19	0.83	0.15	0.79	0.33	0.36	0.68	0.58	0.35
Avail Cap(c_a), veh/h	661	694	591	379	397	337	171	1141	509	186	538	1044
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(l)	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	25.1	25.1	25.2	46.6	50.9	46.3	55.5	30.9	31.3	57.8	36.5	9.1
Incr Delay (d2), s/veh	0.5	0.4	0.6	0.4	7.3	0.3	12.7	0.8	2.0	14.6	4.5	0.9
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	1.9	2.0	1.9	1.2	6.4	0.8	3.0	4.2	4.3	1.2	8.3	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	25.5	25.8	46.9	58.2	46.6	68.2	31.7	33.2	72.4	41.0	10.0
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	A
Approach Vol, veh/h		289			274			642			705	
Approach Delay, s/veh		25.6			55.2			37.1			26.6	
Approach LOS		C			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.0	11.9	39.0		20.1	7.9	43.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		6.7	7.8	19.0		14.6	4.3	12.6				
Green Ext Time (p_c), s		1.4	0.1	2.8		1.0	0.0	2.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.1									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



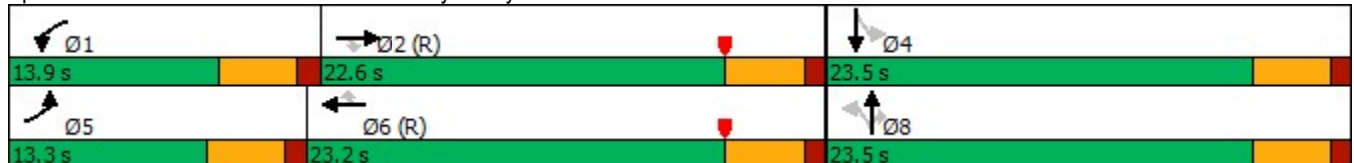
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	161	504	24	258	569	346	24	8	139	266	12
Future Volume (vph)	161	504	24	258	569	346	24	8	139	266	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	13.3	22.6	22.6	13.9	23.2	23.2	23.5	23.5	23.5	23.5	23.5
Total Split (%)	22.2%	37.7%	37.7%	23.2%	38.7%	38.7%	39.2%	39.2%	39.2%	39.2%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	8.5	18.1	18.1	9.4	19.0	19.0	19.0	19.0	19.0		19.0
Actuated g/C Ratio	0.14	0.30	0.30	0.16	0.32	0.32	0.32	0.32	0.32		0.32
v/c Ratio	0.68	0.50	0.05	0.98	0.53	0.51	0.08	0.01	0.24		1.06
Control Delay	40.2	19.2	0.2	80.2	19.1	6.8	15.4	14.2	4.4		78.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	40.2	19.2	0.2	80.2	19.1	6.8	15.4	14.2	4.4		78.1
LOS	D	B	A	F	B	A	B	B	A		E
Approach Delay		23.4			28.9			6.4			78.1
Approach LOS		C			C			A			E

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 35.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 76.0%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘		↕	↘
Traffic Volume (veh/h)	161	504	24	258	569	346	24	8	139	266	12	237
Future Volume (veh/h)	161	504	24	258	569	346	24	8	139	266	12	237
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	169	531	25	272	599	364	25	8	146	280	13	249
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	212	1072	478	279	1206	538	433	592	502	316	10	200
Arrive On Green	0.12	0.30	0.30	0.16	0.34	0.34	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1117	1870	1585	709	33	631
Grp Volume(v), veh/h	169	531	25	272	599	364	25	8	146	542	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1117	1870	1585	1373	0	0
Q Serve(g_s), s	5.5	7.4	0.7	9.1	8.0	11.8	0.0	0.2	4.2	18.8	0.0	0.0
Cycle Q Clear(g_c), s	5.5	7.4	0.7	9.1	8.0	11.8	1.1	0.2	4.2	19.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.52		0.46
Lane Grp Cap(c), veh/h	212	1072	478	279	1206	538	433	592	502	526	0	0
V/C Ratio(X)	0.80	0.50	0.05	0.97	0.50	0.68	0.06	0.01	0.29	1.03	0.00	0.00
Avail Cap(c_a), veh/h	261	1072	478	279	1206	538	433	592	502	526	0	0
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	0.00
Uniform Delay (d), s/veh	25.7	17.2	14.9	25.2	15.7	17.0	14.4	14.1	15.4	22.2	0.0	0.0
Incr Delay (d2), s/veh	13.0	1.6	0.2	46.7	1.5	6.7	0.3	0.0	1.5	47.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.9	0.2	7.1	3.1	4.7	0.2	0.1	1.6	14.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	18.8	15.1	71.9	17.2	23.7	14.6	14.1	16.9	69.6	0.0	0.0
LnGrp LOS	D	B	B	E	B	C	B	B	B	F	A	A
Approach Vol, veh/h		725			1235			179				542
Approach Delay, s/veh		23.4			31.2			16.5				69.6
Approach LOS		C			C			B				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.9	22.6		23.5	11.6	24.9		23.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.4	18.1		19.0	8.8	18.7		19.0				
Max Q Clear Time (g_c+I1), s	11.1	9.4		21.0	7.5	13.8		6.2				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.1	2.3		0.4				

Intersection Summary

HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 8: I-10 EB Ramps & Cherry Valley Bl.

**Intersection**

Intersection Delay, s/veh 28.4  
 Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	690	219	191	444	0	0	0	0	476	0	728
Future Vol, veh/h	0	690	219	191	444	0	0	0	0	476	0	728
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	697	221	193	448	0	0	0	0	481	0	735
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	377.2	174.5	601
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	30%	40%
Vol Thru, %	76%	70%	0%
Vol Right, %	24%	0%	60%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	909	635	1204
LT Vol	0	191	476
Through Vol	690	444	0
RT Vol	219	0	728
Lane Flow Rate	918	641	1216
Geometry Grp	1	1	1
Degree of Util (X)	1.757	1.263	2.28
Departure Headway (Hd)	10.56	11.672	8.02
Convergence, Y/N	Yes	Yes	Yes
Cap	358	321	462
Service Time	8.56	9.672	6.02
HCM Lane V/C Ratio	2.564	1.997	2.632
HCM Control Delay	377.2	174.5	601
HCM Lane LOS	F	F	F
HCM 95th-tile Q	38.1	18.2	76.8

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 9: I-10 WB Ramps & Cherry Valley Bl.

**Intersection**

Intersection Delay, s/veh 406.1  
 Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	454	712	0	0	404	417	229	8	231	0	0	0
Future Vol, veh/h	454	712	0	0	404	417	229	8	231	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	478	749	0	0	425	439	241	8	243	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	630.2	285.2	60
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	49%	39%	0%
Vol Thru, %	2%	61%	49%
Vol Right, %	49%	0%	51%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	468	1166	821
LT Vol	229	454	0
Through Vol	8	712	404
RT Vol	231	0	417
Lane Flow Rate	493	1227	864
Geometry Grp	1	1	1
Degree of Util (X)	0.935	2.347	1.561
Departure Headway (Hd)	8.853	7.783	8.351
Convergence, Y/N	Yes	Yes	Yes
Cap	414	479	441
Service Time	6.853	5.783	6.351
HCM Lane V/C Ratio	1.191	2.562	1.959
HCM Control Delay	60	630.2	285.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	10.4	82.8	37

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 10: Cherry Valley Bl. & Calimesa Bl.

Intersection						
Int Delay, s/veh	42.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	61	882	726	35	86	95
Future Vol, veh/h	61	882	726	35	86	95
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	66	959	789	38	93	103

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	827	0	-	0	1899 808
Stage 1	-	-	-	-	808 -
Stage 2	-	-	-	-	1091 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	804	-	-	-	~ 76 381
Stage 1	-	-	-	-	438 -
Stage 2	-	-	-	-	322 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	804	-	-	-	~ 63 381
Mov Cap-2 Maneuver	-	-	-	-	~ 63 -
Stage 1	-	-	-	-	361 -
Stage 2	-	-	-	-	322 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	\$ 440.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	804	-	-	-	112
HCM Lane V/C Ratio	0.082	-	-	-	1.757
HCM Control Delay (s)	9.9	0	-	-	\$ 440.6
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	15.4

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th AWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 11: Calimesa Bl. & I-10 WB Off-Ramp

Intersection	
Intersection Delay, s/veh	19.5
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	376	1	0	228	417	0
Future Vol, veh/h	376	1	0	228	417	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	404	1	0	245	448	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	21.2	13.2	21.3
HCM LOS	C	B	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	228	377	417
LT Vol	0	376	0
Through Vol	228	0	417
RT Vol	0	1	0
Lane Flow Rate	245	405	448
Geometry Grp	1	1	1
Degree of Util (X)	0.408	0.682	0.706
Departure Headway (Hd)	5.993	6.054	5.67
Convergence, Y/N	Yes	Yes	Yes
Cap	596	596	632
Service Time	4.073	4.115	3.738
HCM Lane V/C Ratio	0.411	0.68	0.709
HCM Control Delay	13.2	21.2	21.3
HCM Lane LOS	B	C	C
HCM 95th-tile Q	2	5.3	5.8

HCM 6th TWSC Opening Year Cumulative (2025) Without Project - PM Peak Hour  
 12: Roberts Rd. & Singleton Rd.

Intersection						
Int Delay, s/veh	10.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	106	30	15	94	144	15
Future Vol, veh/h	106	30	15	94	144	15
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	50	25	157	240	25

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	609	104	0	0	182
Stage 1	104	-	-	-	-
Stage 2	505	-	-	-	-
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	458	951	-	-	1393
Stage 1	920	-	-	-	-
Stage 2	606	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	378	951	-	-	1393
Mov Cap-2 Maneuver	378	-	-	-	-
Stage 1	920	-	-	-	-
Stage 2	500	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.9	0	7.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	436	1393
HCM Lane V/C Ratio	-	-	0.52	0.172
HCM Control Delay (s)	-	-	21.9	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.9	0.6

**APPENDIX 5.2: OPENING YEAR CUMULATIVE (2025) WITH PROJECT PA  
1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT CONDITIONS  
INTERSECTION ANALYSIS WORKSHEETS**



This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	32.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	112	41	358	156	0	0	0	0	114	0	209
Future Vol, veh/h	0	112	41	358	156	0	0	0	0	114	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	123	45	393	171	0	0	0	0	124	0	227

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	168	0	0	1103	1125	171
Stage 1	-	-	-	-	-	-	957	957	-
Stage 2	-	-	-	-	-	-	146	168	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1410	-	0	234	205	873
Stage 1	0	-	-	-	-	0	373	336	-
Stage 2	0	-	-	-	-	0	881	759	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1410	-	-	162	0	873
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	0	-
Stage 1	-	-	-	-	-	-	373	0	-
Stage 2	-	-	-	-	-	-	610	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	5.9	91.5
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1410	-	342
HCM Lane V/C Ratio	-	-	0.279	-	1.027
HCM Control Delay (s)	-	-	8.5	0	91.5
HCM Lane LOS	-	-	A	A	F
HCM 95th %tile Q(veh)	-	-	1.2	-	12.1

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	154	0	0	402	111	232
Future Vol, veh/h	154	0	0	402	111	232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	166	0	0	432	119	249

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	598 166
Stage 1	-	-	-	-	166 -
Stage 2	-	-	-	-	432 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	465 878
Stage 1	-	0	0	-	863 -
Stage 2	-	0	0	-	655 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	465 878
Mov Cap-2 Maneuver	-	-	-	-	465 -
Stage 1	-	-	-	-	863 -
Stage 2	-	-	-	-	655 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	682	-	-
HCM Lane V/C Ratio	0.541	-	-
HCM Control Delay (s)	16.3	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	3.3	-	-

Intersection	
Intersection Delay, s/veh	177.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	77	196	113	29	447	176	81	244	136	64	26	141
Future Vol, veh/h	77	196	113	29	447	176	81	244	136	64	26	141
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	83	211	122	31	481	189	87	262	146	69	28	152
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	77.9			321.2			130.3			33.1		
HCM LOS	F			F			F			D		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	20%	4%	28%
Vol Thru, %	53%	51%	69%	11%
Vol Right, %	30%	29%	27%	61%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	461	386	652	231
LT Vol	81	77	29	64
Through Vol	244	196	447	26
RT Vol	136	113	176	141
Lane Flow Rate	496	415	701	248
Geometry Grp	1	1	1	1
Degree of Util (X)	1.161	0.981	1.639	0.636
Departure Headway (Hd)	10.046	10.613	9.067	11.711
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	367	344	407	310
Service Time	8.046	8.613	7.067	9.711
HCM Lane V/C Ratio	1.351	1.206	1.722	0.8
HCM Control Delay	130.3	77.9	321.2	33.1
HCM Lane LOS	F	F	F	D
HCM 95th-tile Q	16.6	10.8	38.1	4.1

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	384	12	3	631	21	2
Future Vol, veh/h	384	12	3	631	21	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	392	12	3	644	21	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	404	0	1048
Stage 1	-	-	-	-	398
Stage 2	-	-	-	-	650
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1155	-	252
Stage 1	-	-	-	-	678
Stage 2	-	-	-	-	520
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1155	-	251
Mov Cap-2 Maneuver	-	-	-	-	251
Stage 1	-	-	-	-	678
Stage 2	-	-	-	-	518

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	265	-	-	1155	-
HCM Lane V/C Ratio	0.089	-	-	0.003	-
HCM Control Delay (s)	19.9	-	-	8.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	34	347	4	1	498	13	7	1	1	21	1	108
Future Vol, veh/h	34	347	4	1	498	13	7	1	1	21	1	108
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	365	4	1	524	14	7	1	1	22	1	114
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.9	12.9	10.1	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	78%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	11%	0%	100%	97%	0%	100%	93%	1%
Vol Right, %	11%	0%	0%	3%	0%	0%	7%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	34	231	120	1	332	179	130
LT Vol	7	34	0	0	1	0	0	21
Through Vol	1	0	231	116	0	332	166	1
RT Vol	1	0	0	4	0	0	13	108
Lane Flow Rate	9	36	244	126	1	349	188	137
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.019	0.061	0.38	0.196	0.002	0.534	0.285	0.233
Departure Headway (Hd)	7.255	6.129	5.624	5.601	6.009	5.505	5.453	6.138
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	586	640	642	599	661	663	586
Service Time	4.997	3.852	3.347	3.323	3.709	3.205	3.153	3.871
HCM Lane V/C Ratio	0.018	0.061	0.381	0.196	0.002	0.528	0.284	0.234
HCM Control Delay	10.1	9.3	11.8	9.7	8.7	14.3	10.3	10.7
HCM Lane LOS	B	A	B	A	A	B	B	B
HCM 95th-tile Q	0.1	0.2	1.8	0.7	0	3.2	1.2	0.9

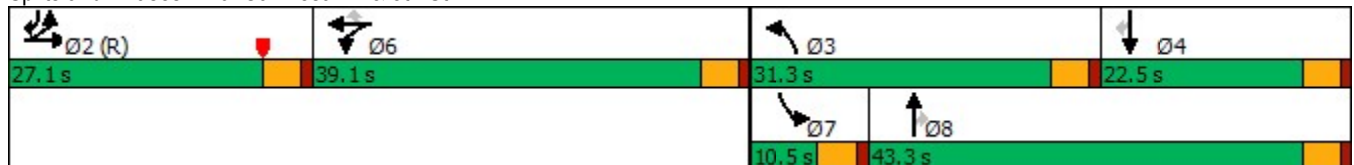
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	181	17	318	20	223	461	162	23	148	309
Future Volume (vph)	131	181	17	318	20	223	461	162	23	148	309
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	28.8	28.8	28.8	22.1	48.4	48.4	6.4	28.5	55.6
Actuated g/C Ratio	0.19	0.19	0.24	0.24	0.24	0.18	0.40	0.40	0.05	0.24	0.46
v/c Ratio	0.45	0.44	0.05	0.84	0.05	0.80	0.38	0.28	0.29	0.39	0.43
Control Delay	48.7	42.9	32.6	59.9	0.2	65.0	28.3	15.3	62.5	45.1	11.7
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	48.7	42.9	32.6	59.9	0.2	65.0	28.3	15.3	62.5	45.1	11.7
LOS	D	D	C	E	A	E	C	B	E	D	B
Approach Delay		44.8		55.1			35.5			24.4	
Approach LOS		D		E			D			C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 37.9  
 Intersection Capacity Utilization 59.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service B

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	181	42	17	318	20	223	461	162	23	148	309
Future Volume (veh/h)	131	181	42	17	318	20	223	461	162	23	148	309
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	234	49	20	374	24	262	542	191	27	174	364
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	494	835	172	400	420	356	293	1149	512	44	343	730
Arrive On Green	0.28	0.28	0.28	0.22	0.22	0.22	0.16	0.32	0.32	0.02	0.18	0.18
Sat Flow, veh/h	1781	3011	619	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	139	144	139	20	374	24	262	542	191	27	174	364
Grp Sat Flow(s),veh/h/ln	1781	1870	1759	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.6	11.1	1.8	10.0	19.3
Cycle Q Clear(g_c), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.6	11.1	1.8	10.0	19.3
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	494	519	488	400	420	356	293	1149	512	44	343	730
V/C Ratio(X)	0.28	0.28	0.29	0.05	0.89	0.07	0.89	0.47	0.37	0.61	0.51	0.50
Avail Cap(c_a), veh/h	494	519	488	514	539	457	398	1149	512	89	343	730
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(l)	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	34.0	34.0	34.0	36.5	45.1	36.6	49.1	32.4	31.2	57.9	44.1	22.6
Incr Delay (d2), s/veh	1.4	1.3	1.5	0.1	14.0	0.1	17.6	1.4	2.1	13.0	5.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.5	3.4	0.5	12.5	0.6	9.0	6.4	4.5	1.0	5.1	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	35.3	35.5	36.5	59.1	36.7	66.7	33.8	33.3	71.0	49.4	25.1
LnGrp LOS	D	D	D	D	E	D	E	C	C	E	D	C
Approach Vol, veh/h		422			418			995			565	
Approach Delay, s/veh		35.4			56.7			42.4			34.7	
Approach LOS		D			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		37.8	24.2	26.5		31.5	7.5	43.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		9.5	19.3	21.3		25.3	3.8	16.6				
Green Ext Time (p_c), s		1.7	0.5	0.0		1.7	0.0	4.2				

Intersection Summary

HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



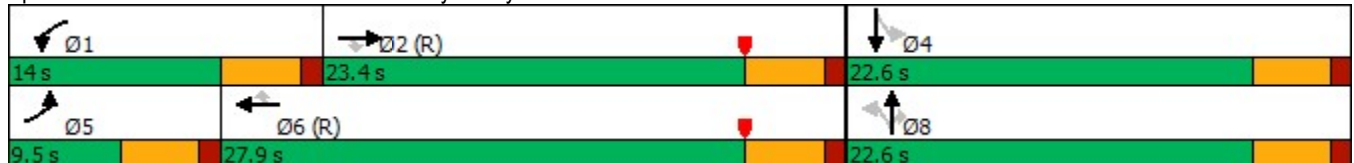
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	306	420	21	127	371	338	12	23	121	468	21
Future Volume (vph)	306	420	21	127	371	338	12	23	121	468	21
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	23.4	23.4	14.0	27.9	27.9	22.6	22.6	22.6	22.6	22.6
Total Split (%)	15.8%	39.0%	39.0%	23.3%	46.5%	46.5%	37.7%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	21.9	21.9	8.6	23.4	23.4	18.1	18.1	18.1		18.1
Actuated g/C Ratio	0.08	0.36	0.36	0.14	0.39	0.39	0.30	0.30	0.30		0.30
v/c Ratio	2.29	0.36	0.04	0.55	0.30	0.44	0.04	0.04	0.23		1.73
Control Delay	619.6	16.2	0.1	32.4	13.4	3.5	15.2	15.2	4.8		360.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	619.6	16.2	0.1	32.4	13.4	3.5	15.2	15.2	4.8		360.2
LOS	F	B	A	C	B	A	B	B	A		F
Approach Delay		262.7			12.3			7.1			360.2
Approach LOS		F			B			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.29  
 Intersection Signal Delay: 189.2  
 Intersection Capacity Utilization 85.7%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	420	21	127	371	338	12	23	121	468	21	221
Future Volume (veh/h)	306	420	21	127	371	338	12	23	121	468	21	221
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	336	462	23	140	408	371	13	25	133	514	23	243
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1324	591	179	1386	618	493	564	478	357	12	122
Arrive On Green	0.08	0.37	0.37	0.10	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1113	1870	1585	853	38	403
Grp Volume(v), veh/h	336	462	23	140	408	371	13	25	133	780	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1113	1870	1585	1294	0	0
Q Serve(g_s), s	5.0	5.6	0.6	4.6	4.7	11.2	0.0	0.6	3.8	17.5	0.0	0.0
Cycle Q Clear(g_c), s	5.0	5.6	0.6	4.6	4.7	11.2	0.4	0.6	3.8	18.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.66		0.31
Lane Grp Cap(c), veh/h	148	1324	591	179	1386	618	493	564	478	490	0	0
V/C Ratio(X)	2.26	0.35	0.04	0.78	0.29	0.60	0.03	0.04	0.28	1.59	0.00	0.00
Avail Cap(c_a), veh/h	148	1324	591	282	1386	618	493	564	478	490	0	0
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	0.00
Uniform Delay (d), s/veh	27.5	13.6	12.0	26.3	12.6	14.6	14.8	14.8	16.0	23.0	0.0	0.0
Incr Delay (d2), s/veh	589.5	0.7	0.1	7.2	0.5	4.3	0.1	0.1	1.4	276.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.3	2.1	0.2	2.2	1.7	4.1	0.1	0.2	1.5	44.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	617.0	14.3	12.1	33.5	13.2	18.8	14.9	15.0	17.4	299.2	0.0	0.0
LnGrp LOS	F	B	B	C	B	B	B	B	B	F	A	A
Approach Vol, veh/h		821			919			171			780	
Approach Delay, s/veh		260.9			18.6			16.9			299.2	
Approach LOS		F			B			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	26.9		22.6	9.5	27.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	18.9		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	6.6	7.6		20.1	7.0	13.2		5.8				
Green Ext Time (p_c), s	0.1	2.3		0.0	0.0	2.9		0.4				

Intersection Summary

HCM 6th Ctrl Delay	173.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	41.3											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	812	197	200	420	0	0	0	0	291	0	415
Future Vol, veh/h	0	812	197	200	420	0	0	0	0	291	0	415
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	873	212	215	452	0	0	0	0	313	0	446
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	515.2	187.4	228
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	32%	41%
Vol Thru, %	80%	68%	0%
Vol Right, %	20%	0%	59%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1009	620	706
LT Vol	0	200	291
Through Vol	812	420	0
RT Vol	197	0	415
Lane Flow Rate	1085	667	759
Geometry Grp	1	1	1
Degree of Util (X)	2.084	1.314	1.426
Departure Headway (Hd)	8.519	9.821	8.416
Convergence, Y/N	Yes	Yes	Yes
Cap	434	373	440
Service Time	6.519	7.821	6.416
HCM Lane V/C Ratio	2.5	1.788	1.725
HCM Control Delay	515.2	187.4	228
HCM Lane LOS	F	F	F
HCM 95th-tile Q	62.5	22.4	30.3

Intersection												
Intersection Delay, s/veh	60.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	626	475	0	0	436	549	185	11	321	0	0	0
Future Vol, veh/h	626	475	0	0	436	549	185	11	321	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	673	511	0	0	469	590	199	12	345	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	633.7	464.9	82.9
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	36%	57%	0%
Vol Thru, %	2%	43%	44%
Vol Right, %	62%	0%	56%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	517	1101	985
LT Vol	185	626	0
Through Vol	11	475	436
RT Vol	321	0	549
Lane Flow Rate	556	1184	1059
Geometry Grp	1	1	1
Degree of Util (X)	1.029	2.35	1.97
Departure Headway (Hd)	8.887	8.59	8.602
Convergence, Y/N	Yes	Yes	Yes
Cap	411	438	434
Service Time	6.887	6.59	6.602
HCM Lane V/C Ratio	1.353	2.703	2.44
HCM Control Delay	82.9	633.7	464.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	13.3	75.6	56.2

Intersection						
Int Delay, s/veh	605.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	328	468	911	138	39	73
Future Vol, veh/h	328	468	911	138	39	73
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	381	544	1059	160	45	85

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1219	0	-	0	2445 1139
Stage 1	-	-	-	-	1139 -
Stage 2	-	-	-	-	1306 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	572	-	-	-	~ 34 245
Stage 1	-	-	-	-	305 -
Stage 2	-	-	-	-	254 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	572	-	-	-	~ 2 245
Mov Cap-2 Maneuver	-	-	-	-	~ 2 -
Stage 1	-	-	-	-	~ 14 -
Stage 2	-	-	-	-	254 -

Approach	EB	WB	SB
HCM Control Delay, s	9.5	0	\$ 10513.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	572	-	-	-	6
HCM Lane V/C Ratio	0.667	-	-	-	-21.705
HCM Control Delay (s)	23	0	-	-	\$ 10513.9
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	5	-	-	-	18.2

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	27.6
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	324	2	0	522	208	0
Future Vol, veh/h	324	2	0	522	208	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	360	2	0	580	231	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20	38.1	13.1
HCM LOS	C	E	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	522	326	208
LT Vol	0	324	0
Through Vol	522	0	208
RT Vol	0	2	0
Lane Flow Rate	580	362	231
Geometry Grp	1	1	1
Degree of Util (X)	0.895	0.637	0.391
Departure Headway (Hd)	5.554	6.334	6.09
Convergence, Y/N	Yes	Yes	Yes
Cap	650	569	587
Service Time	3.623	4.406	4.18
HCM Lane V/C Ratio	0.892	0.636	0.394
HCM Control Delay	38.1	20	13.1
HCM Lane LOS	E	C	B
HCM 95th-tile Q	11	4.5	1.8

Intersection						
Int Delay, s/veh	7.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	97	55	22	70	36	9
Future Vol, veh/h	97	55	22	70	36	9
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	194	110	44	140	72	18

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	276	114	0	0	184
Stage 1	114	-	-	-	-
Stage 2	162	-	-	-	-
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	714	939	-	-	1391
Stage 1	911	-	-	-	-
Stage 2	867	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	677	939	-	-	1391
Mov Cap-2 Maneuver	677	-	-	-	-
Stage 1	911	-	-	-	-
Stage 2	822	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	6.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	753	1391
HCM Lane V/C Ratio	-	-	0.404	0.052
HCM Control Delay (s)	-	-	13	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	2	0.2

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	2	5	457	7	15	154
Future Vol, veh/h	2	5	457	7	15	154
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	-	-	-	150	-
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	2	5	497	8	16	167

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	700	253	0	0	505	0
Stage 1	501	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	389	747	-	-	1058	-
Stage 1	575	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	383	747	-	-	1058	-
Mov Cap-2 Maneuver	471	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	640	1058
HCM Lane V/C Ratio	-	-	0.012	0.015
HCM Control Delay (s)	-	-	10.7	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0



Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	2	11	453	7	37	120
Future Vol, veh/h	2	11	453	7	37	120
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	-	-	-	150	-
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	2	12	492	8	40	130

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	706	250	0	0	500	0
Stage 1	496	-	-	-	-	-
Stage 2	210	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	386	751	-	-	1062	-
Stage 1	578	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	371	751	-	-	1062	-
Mov Cap-2 Maneuver	465	-	-	-	-	-
Stage 1	578	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	686	1062
HCM Lane V/C Ratio	-	-	0.021	0.038
HCM Control Delay (s)	-	-	10.4	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	26	60	400	23	50	72
Future Vol, veh/h	26	60	400	23	50	72
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	-	-	-	150	-
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	28	65	435	25	54	78

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	634	230	0	0	460
Stage 1	448	-	-	-	-
Stage 2	186	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	427	773	-	-	1099
Stage 1	612	-	-	-	-
Stage 2	845	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	406	773	-	-	1099
Mov Cap-2 Maneuver	494	-	-	-	-
Stage 1	612	-	-	-	-
Stage 2	804	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	660	1099
HCM Lane V/C Ratio	-	-	0.142	0.049
HCM Control Delay (s)	-	-	11.4	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	5	7	417	15	22	76
Future Vol, veh/h	5	7	417	15	22	76
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	-	-	-	150	-
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	5	8	453	16	24	83

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	592	235	0	0	469	0
Stage 1	461	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	453	767	-	-	1091	-
Stage 1	602	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	443	767	-	-	1091	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	874	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	634	1091
HCM Lane V/C Ratio	-	-	0.021	0.022
HCM Control Delay (s)	-	-	10.8	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection												
Int Delay, s/veh	32.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	295	141	239	109	0	0	0	0	160	0	122
Future Vol, veh/h	0	295	141	239	109	0	0	0	0	160	0	122
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	324	155	263	120	0	0	0	0	174	0	133

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	479	0	0	1048	1125	120
Stage 1	-	-	-	-	-	-	646	646	-
Stage 2	-	-	-	-	-	-	402	479	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1083	-	0	252	205	931
Stage 1	0	-	-	-	-	0	522	467	-
Stage 2	0	-	-	-	-	0	676	555	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1083	-	-	186	0	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	186	0	-
Stage 1	-	-	-	-	-	-	522	0	-
Stage 2	-	-	-	-	-	-	500	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	6.4	116
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1083	-	284
HCM Lane V/C Ratio	-	-	0.243	-	1.079
HCM Control Delay (s)	-	-	9.4	0	116
HCM Lane LOS	-	-	A	A	F
HCM 95th %tile Q(veh)	-	-	1	-	12.2

Intersection						
Int Delay, s/veh	7.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	215	0	0	286	63	323
Future Vol, veh/h	215	0	0	286	63	323
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	234	0	0	311	68	351

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	545 234
Stage 1	-	-	-	-	234 -
Stage 2	-	-	-	-	311 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	499 805
Stage 1	-	0	0	-	805 -
Stage 2	-	0	0	-	743 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	499 805
Mov Cap-2 Maneuver	-	-	-	-	499 -
Stage 1	-	-	-	-	805 -
Stage 2	-	-	-	-	743 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	732	-	-
HCM Lane V/C Ratio	0.573	-	-
HCM Control Delay (s)	16.3	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	3.7	-	-

Intersection	
Intersection Delay, s/veh	115.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	91	319	129	54	305	72	159	56	26	159	110	137
Future Vol, veh/h	91	319	129	54	305	72	159	56	26	159	110	137
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	94	329	133	56	314	74	164	58	27	164	113	141
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	193			97.6			33.5			79.3		
HCM LOS	F			F			D			F		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	66%	17%	13%	39%
Vol Thru, %	23%	59%	71%	27%
Vol Right, %	11%	24%	17%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	241	539	431	406
LT Vol	159	91	54	159
Through Vol	56	319	305	110
RT Vol	26	129	72	137
Lane Flow Rate	248	556	444	419
Geometry Grp	1	1	1	1
Degree of Util (X)	0.667	1.336	1.068	1.002
Departure Headway (Hd)	10.986	8.981	9.606	9.697
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	330	411	382	377
Service Time	8.986	6.981	7.606	7.697
HCM Lane V/C Ratio	0.752	1.353	1.162	1.111
HCM Control Delay	33.5	193	97.6	79.3
HCM Lane LOS	D	F	F	F
HCM 95th-tile Q	4.5	24.9	13.9	11.9

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	475	29	5	414	17	4
Future Vol, veh/h	475	29	5	414	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	500	31	5	436	18	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	531	0	962 516
Stage 1	-	-	-	-	516 -
Stage 2	-	-	-	-	446 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1036	-	284 559
Stage 1	-	-	-	-	599 -
Stage 2	-	-	-	-	645 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1036	-	283 559
Mov Cap-2 Maneuver	-	-	-	-	283 -
Stage 1	-	-	-	-	599 -
Stage 2	-	-	-	-	642 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	1036	-
HCM Lane V/C Ratio	0.071	-	-	0.005	-
HCM Control Delay (s)	17.4	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	89	391	1	1	357	14	1	1	2	17	1	42
Future Vol, veh/h	89	391	1	1	357	14	1	1	2	17	1	42
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	93	407	1	1	372	15	1	1	2	18	1	44
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.1	10.2	9.1	9.5
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	28%
Vol Thru, %	25%	0%	100%	99%	0%	100%	89%	2%
Vol Right, %	50%	0%	0%	1%	0%	0%	11%	70%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	89	261	131	1	238	133	60
LT Vol	1	89	0	0	1	0	0	17
Through Vol	1	0	261	130	0	238	119	1
RT Vol	2	0	0	1	0	0	14	42
Lane Flow Rate	4	93	272	137	1	248	139	62
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.007	0.144	0.383	0.193	0.002	0.358	0.197	0.104
Departure Headway (Hd)	6.241	5.576	5.074	5.069	5.695	5.194	5.12	6.003
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	569	642	709	706	627	692	700	593
Service Time	4.029	3.318	2.816	2.81	3.44	2.938	2.864	3.776
HCM Lane V/C Ratio	0.007	0.145	0.384	0.194	0.002	0.358	0.199	0.105
HCM Control Delay	9.1	9.3	11	9	8.5	10.8	9.1	9.5
HCM Lane LOS	A	A	B	A	A	B	A	A
HCM 95th-tile Q	0	0.5	1.8	0.7	0	1.6	0.7	0.3



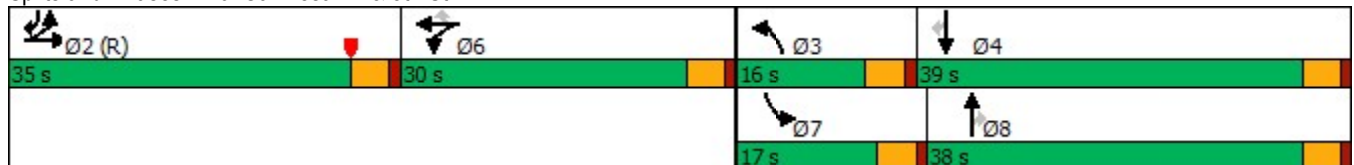
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	96	90	40	189	28	82	360	171	32	296	340
Future Volume (vph)	96	90	40	189	28	82	360	171	32	296	340
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	18.3	18.3	18.3	10.5	49.6	49.6	7.8	42.7	77.7
Actuated g/C Ratio	0.25	0.25	0.15	0.15	0.15	0.09	0.41	0.41	0.06	0.36	0.65
v/c Ratio	0.22	0.23	0.16	0.71	0.09	0.56	0.26	0.25	0.30	0.48	0.32
Control Delay	37.2	19.5	43.2	61.4	0.6	66.6	26.2	12.5	59.4	34.7	2.6
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	37.2	19.5	43.2	61.4	0.6	66.6	26.2	12.5	59.4	34.7	2.6
LOS	D	B	D	E	A	E	C	B	E	C	A
Approach Delay		25.1		51.9			27.8			19.5	
Approach LOS		C		D			C			B	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 27.8  
 Intersection Capacity Utilization 50.4%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	90	86	40	189	28	82	360	171	32	296	340
Future Volume (veh/h)	96	90	86	40	189	28	82	360	171	32	296	340
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	96	104	91	43	201	30	87	383	182	34	315	362
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	661	716	569	231	243	206	110	1141	509	50	538	1044
Arrive On Green	0.37	0.37	0.37	0.13	0.13	0.13	0.06	0.32	0.32	0.03	0.29	0.29
Sat Flow, veh/h	1781	1930	1534	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	96	100	95	43	201	30	87	383	182	34	315	362
Grp Sat Flow(s),veh/h/ln	1781	1870	1594	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.3	4.3	4.8	2.6	12.6	2.0	5.8	9.8	10.6	2.3	17.3	12.1
Cycle Q Clear(g_c), s	4.3	4.3	4.8	2.6	12.6	2.0	5.8	9.8	10.6	2.3	17.3	12.1
Prop In Lane	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	661	694	591	231	243	206	110	1141	509	50	538	1044
V/C Ratio(X)	0.15	0.14	0.16	0.19	0.83	0.15	0.79	0.34	0.36	0.68	0.59	0.35
Avail Cap(c_a), veh/h	661	694	591	379	397	337	171	1141	509	186	538	1044
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(l)	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	25.1	25.1	25.2	46.6	50.9	46.3	55.5	31.0	31.3	57.8	36.6	9.1
Incr Delay (d2), s/veh	0.5	0.4	0.6	0.4	7.3	0.3	12.7	0.8	2.0	14.6	4.6	0.9
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	1.9	2.0	1.9	1.2	6.4	0.8	3.0	4.3	4.3	1.2	8.5	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	25.5	25.8	46.9	58.2	46.6	68.2	31.8	33.2	72.4	41.2	10.0
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	A
Approach Vol, veh/h		291			274			652			711	
Approach Delay, s/veh		25.6			55.2			37.1			26.8	
Approach LOS		C			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.0	11.9	39.0		20.1	7.9	43.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		6.8	7.8	19.3		14.6	4.3	12.6				
Green Ext Time (p_c), s		1.4	0.1	2.8		1.0	0.0	3.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.1									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

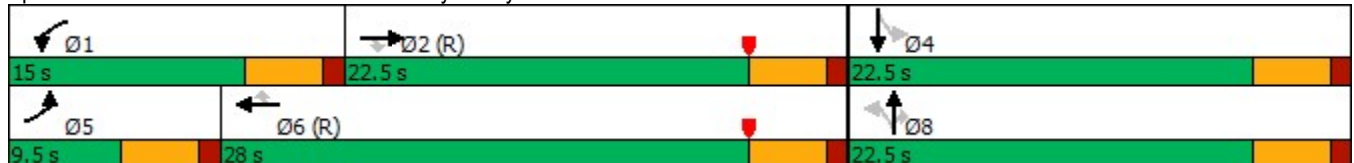
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	161	509	24	258	578	346	24	8	139	266	12
Future Volume (vph)	161	509	24	258	578	346	24	8	139	266	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0		18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30		0.30
v/c Ratio	1.15	0.51	0.04	0.88	0.44	0.44	0.09	0.01	0.24		1.11
Control Delay	152.2	19.3	0.1	56.3	14.7	4.2	16.2	15.0	2.6		97.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	152.2	19.3	0.1	56.3	14.7	4.2	16.2	15.0	2.6		97.7
LOS	F	B	A	E	B	A	B	B	A		F
Approach Delay		49.4			20.7			5.1			97.7
Approach LOS		D			C			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.15  
 Intersection Signal Delay: 42.9  
 Intersection Capacity Utilization 76.2%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service D

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	509	24	258	578	346	24	8	139	266	12	237
Future Volume (veh/h)	161	509	24	258	578	346	24	8	139	266	12	237
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	169	536	25	272	608	364	25	8	146	280	13	249
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	1066	476	312	1392	621	418	561	476	304	10	189
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1117	1870	1585	709	33	630
Grp Volume(v), veh/h	169	536	25	272	608	364	25	8	146	542	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1117	1870	1585	1372	0	0
Q Serve(g_s), s	5.0	7.5	0.7	8.9	7.5	10.9	0.0	0.2	4.3	17.8	0.0	0.0
Cycle Q Clear(g_c), s	5.0	7.5	0.7	8.9	7.5	10.9	1.1	0.2	4.3	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.52		0.46
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	418	561	476	503	0	0
V/C Ratio(X)	1.14	0.50	0.05	0.87	0.44	0.59	0.06	0.01	0.31	1.08	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	418	561	476	503	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	17.3	14.9	24.1	13.4	14.4	15.1	14.8	16.2	22.7	0.0	0.0
Incr Delay (d2), s/veh	115.9	1.7	0.2	22.7	1.0	4.0	0.3	0.0	1.7	63.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	2.9	0.2	5.4	2.8	4.0	0.3	0.1	1.6	15.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	143.4	19.0	15.1	46.8	14.4	18.4	15.4	14.8	17.9	85.7	0.0	0.0
LnGrp LOS	F	B	B	D	B	B	B	B	B	F	A	A
Approach Vol, veh/h		730			1244			179				542
Approach Delay, s/veh		47.7			22.7			17.4				85.7
Approach LOS		D			C			B				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	10.9	9.5		20.0	7.0	12.9		6.3				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	4.0		0.4				

Intersection Summary

HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

**Intersection**

Intersection Delay, s/veh 437.1  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	695	219	247	453	0	0	0	0	476	0	728
Future Vol, veh/h	0	695	219	247	453	0	0	0	0	476	0	728
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	702	221	249	458	0	0	0	0	481	0	735
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	381.8	227	601.3
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	35%	40%
Vol Thru, %	76%	65%	0%
Vol Right, %	24%	0%	60%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	914	700	1204
LT Vol	0	247	476
Through Vol	695	453	0
RT Vol	219	0	728
Lane Flow Rate	923	707	1216
Geometry Grp	1	1	1
Degree of Util (X)	1.766	1.395	2.28
Departure Headway (Hd)	10.799	11.699	8.127
Convergence, Y/N	Yes	Yes	Yes
Cap	351	318	462
Service Time	8.799	9.699	6.127
HCM Lane V/C Ratio	2.63	2.223	2.632
HCM Control Delay	381.8	227	601.3
HCM Lane LOS	F	F	F
HCM 95th-tile Q	37.8	22.4	75.9

Intersection												
Intersection Delay, s/veh	47.5											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	454	717	0	0	468	417	229	8	278	0	0	0
Future Vol, veh/h	454	717	0	0	468	417	229	8	278	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	478	755	0	0	493	439	241	8	293	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	669.8	366.4	81.5
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	44%	39%	0%
Vol Thru, %	2%	61%	53%
Vol Right, %	54%	0%	47%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	515	1171	885
LT Vol	229	454	0
Through Vol	8	717	468
RT Vol	278	0	417
Lane Flow Rate	542	1233	932
Geometry Grp	1	1	1
Degree of Util (X)	1.023	2.433	1.745
Departure Headway (Hd)	8.943	8.249	8.744
Convergence, Y/N	Yes	Yes	Yes
Cap	412	456	429
Service Time	6.943	6.249	6.744
HCM Lane V/C Ratio	1.316	2.704	2.172
HCM Control Delay	81.5	669.8	366.4
HCM Lane LOS	F	F	F
HCM 95th-tile Q	13	83	44.4

Intersection						
Int Delay, s/veh	117.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	113	882	726	40	95	159
Future Vol, veh/h	113	882	726	40	95	159
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	123	959	789	43	103	173

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	832	0	-	0	2016 811
Stage 1	-	-	-	-	811 -
Stage 2	-	-	-	-	1205 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	801	-	-	-	~ 64 379
Stage 1	-	-	-	-	437 -
Stage 2	-	-	-	-	284 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	801	-	-	-	~ 43 379
Mov Cap-2 Maneuver	-	-	-	-	~ 43 -
Stage 1	-	-	-	-	293 -
Stage 2	-	-	-	-	284 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	\$ 926.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	801	-	-	-	97
HCM Lane V/C Ratio	0.153	-	-	-	2.846
HCM Control Delay (s)	10.3	0	-	-	\$ 926.7
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	26.3

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	19.9
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	376	1	0	237	422	0
Future Vol, veh/h	376	1	0	237	422	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	404	1	0	255	454	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	21.5	13.5	22.1
HCM LOS	C	B	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	237	377	422
LT Vol	0	376	0
Through Vol	237	0	422
RT Vol	0	1	0
Lane Flow Rate	255	405	454
Geometry Grp	1	1	1
Degree of Util (X)	0.426	0.686	0.718
Departure Headway (Hd)	6.013	6.094	5.696
Convergence, Y/N	Yes	Yes	Yes
Cap	594	592	631
Service Time	4.096	4.161	3.767
HCM Lane V/C Ratio	0.429	0.684	0.719
HCM Control Delay	13.5	21.5	22.1
HCM Lane LOS	B	C	C
HCM 95th-tile Q	2.1	5.3	6



Intersection						
Int Delay, s/veh	10.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	106	30	15	94	144	15
Future Vol, veh/h	106	30	15	94	144	15
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	50	25	157	240	25

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	609	104	0	0	182
Stage 1	104	-	-	-	-
Stage 2	505	-	-	-	-
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	458	951	-	-	1393
Stage 1	920	-	-	-	-
Stage 2	606	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	378	951	-	-	1393
Mov Cap-2 Maneuver	378	-	-	-	-
Stage 1	920	-	-	-	-
Stage 2	500	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.9	0	7.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	436	1393
HCM Lane V/C Ratio	-	-	0.52	0.172
HCM Control Delay (s)	-	-	21.9	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.9	0.6

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	9	19	222	4	7	287
Future Vol, veh/h	9	19	222	4	7	287
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	-	-	-	150	-
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	10	21	241	4	8	312

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	571	123	0	0	245
Stage 1	243	-	-	-	-
Stage 2	328	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	466	905	-	-	1320
Stage 1	775	-	-	-	-
Stage 2	729	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	463	905	-	-	1320
Mov Cap-2 Maneuver	553	-	-	-	-
Stage 1	775	-	-	-	-
Stage 2	725	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	751	1320
HCM Lane V/C Ratio	-	-	0.041	0.006
HCM Control Delay (s)	-	-	10	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	9	47	178	4	18	278
Future Vol, veh/h	9	47	178	4	18	278
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	-	-	-	150	-
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	10	51	193	4	20	302

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	537	99	0	0	197
Stage 1	195	-	-	-	-
Stage 2	342	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	489	938	-	-	1374
Stage 1	819	-	-	-	-
Stage 2	718	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	482	938	-	-	1374
Mov Cap-2 Maneuver	563	-	-	-	-
Stage 1	819	-	-	-	-
Stage 2	707	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	847	1374
HCM Lane V/C Ratio	-	-	0.072	0.014
HCM Control Delay (s)	-	-	9.6	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	35	77	105	42	97	190
Future Vol, veh/h	35	77	105	42	97	190
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	-	-	-	150	-
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	38	84	114	46	105	207

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	554	80	0	0	160
Stage 1	137	-	-	-	-
Stage 2	417	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	478	965	-	-	1418
Stage 1	876	-	-	-	-
Stage 2	664	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	443	965	-	-	1418
Mov Cap-2 Maneuver	517	-	-	-	-
Stage 1	876	-	-	-	-
Stage 2	615	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	2.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	759	1418
HCM Lane V/C Ratio	-	-	0.16	0.074
HCM Control Delay (s)	-	-	10.6	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	28	120	7	11	214
Future Vol, veh/h	19	28	120	7	11	214
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	-	-	-	150	-
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	21	30	130	8	12	233

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	391	69	0	0	138
Stage 1	134	-	-	-	-
Stage 2	257	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	599	980	-	-	1445
Stage 1	879	-	-	-	-
Stage 2	785	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	594	980	-	-	1445
Mov Cap-2 Maneuver	645	-	-	-	-
Stage 1	879	-	-	-	-
Stage 2	779	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	810	1445
HCM Lane V/C Ratio	-	-	0.063	0.008
HCM Control Delay (s)	-	-	9.7	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

**APPENDIX 5.3: OPENING YEAR CUMULATIVE (2025) WITH PROJECT PA  
1, PARCEL HUBE WAREHOUSE & TRUCK/TRAILER LOT CONDITIONS  
INTERSECTION ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	354.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	112	41	427	156	0	0	0	0	283	0	209
Future Vol, veh/h	0	112	41	427	156	0	0	0	0	283	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	123	45	469	171	0	0	0	0	308	0	227

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	168	0	0		1255	1277	171
Stage 1	-	-	-	-	-	-		1109	1109	-
Stage 2	-	-	-	-	-	-		146	168	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1410	-	0		~ 189	166	873
Stage 1	0	-	-	-	-	0		316	285	-
Stage 2	0	-	-	-	-	0		881	759	-
Platoon blocked, %	-	-	-	-	-	-		-	-	-
Mov Cap-1 Maneuver	-	-	-	1410	-	-		~ 119	0	873
Mov Cap-2 Maneuver	-	-	-	-	-	-		~ 119	0	-
Stage 1	-	-	-	-	-	-		316	0	-
Stage 2	-	-	-	-	-	-		557	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	6.5	\$ 882.8
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1410	-	188
HCM Lane V/C Ratio	-	-	0.333	-	2.845
HCM Control Delay (s)	-	-	8.8	0\$ 882.8	
HCM Lane LOS	-	-	A	A	F
HCM 95th %tile Q(veh)	-	-	1.5	-	47.6

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	11.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	323	0	0	471	111	286
Future Vol, veh/h	323	0	0	471	111	286
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	347	0	0	506	119	308

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	853 347
Stage 1	-	-	-	-	347 -
Stage 2	-	-	-	-	506 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	330 696
Stage 1	-	0	0	-	716 -
Stage 2	-	0	0	-	606 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	330 696
Mov Cap-2 Maneuver	-	-	-	-	330 -
Stage 1	-	-	-	-	716 -
Stage 2	-	-	-	-	606 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	34
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	531	-	-
HCM Lane V/C Ratio	0.804	-	-
HCM Control Delay (s)	34	-	-
HCM Lane LOS	D	-	-
HCM 95th %tile Q(veh)	7.7	-	-

Intersection	
Intersection Delay, s/veh	366.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	77	196	335	44	447	176	367	263	155	64	41	141
Future Vol, veh/h	77	196	335	44	447	176	367	263	155	64	41	141
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	83	211	360	47	481	189	395	283	167	69	44	152
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	296.6	372.8	514.1	53.3
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	47%	13%	7%	26%
Vol Thru, %	34%	32%	67%	17%
Vol Right, %	20%	55%	26%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	785	608	667	246
LT Vol	367	77	44	64
Through Vol	263	196	447	41
RT Vol	155	335	176	141
Lane Flow Rate	844	654	717	265
Geometry Grp	1	1	1	1
Degree of Util (X)	2.061	1.545	1.727	0.686
Departure Headway (Hd)	11.781	13.86	13.416	18.106
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	321	268	280	204
Service Time	9.781	11.86	11.416	16.106
HCM Lane V/C Ratio	2.629	2.44	2.561	1.299
HCM Control Delay	514.1	296.6	372.8	53.3
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	45.7	24	30.1	4.2

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	403	12	3	646	21	2
Future Vol, veh/h	403	12	3	646	21	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	411	12	3	659	21	2

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	423	0	1082
Stage 1	-	-	-	-	417
Stage 2	-	-	-	-	665
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1136	-	241
Stage 1	-	-	-	-	665
Stage 2	-	-	-	-	511
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1136	-	240
Mov Cap-2 Maneuver	-	-	-	-	240
Stage 1	-	-	-	-	665
Stage 2	-	-	-	-	509

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	254	-	-	1136	-
HCM Lane V/C Ratio	0.092	-	-	0.003	-
HCM Control Delay (s)	20.6	-	-	8.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	34	366	4	1	513	13	7	1	1	21	1	108
Future Vol, veh/h	34	366	4	1	513	13	7	1	1	21	1	108
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	385	4	1	540	14	7	1	1	22	1	114
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	11.2	13.4	10.2	10.9
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	78%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	11%	0%	100%	97%	0%	100%	93%	1%
Vol Right, %	11%	0%	0%	3%	0%	0%	7%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	34	244	126	1	342	184	130
LT Vol	7	34	0	0	1	0	0	21
Through Vol	1	0	244	122	0	342	171	1
RT Vol	1	0	0	4	0	0	13	108
Lane Flow Rate	9	36	257	133	1	360	194	137
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.019	0.061	0.403	0.207	0.002	0.554	0.294	0.236
Departure Headway (Hd)	7.336	6.157	5.652	5.629	6.042	5.537	5.466	6.209
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	488	583	637	638	596	655	659	579
Service Time	5.081	3.882	3.377	3.355	3.742	3.237	3.188	3.943
HCM Lane V/C Ratio	0.018	0.062	0.403	0.208	0.002	0.55	0.294	0.237
HCM Control Delay	10.2	9.3	12.2	9.8	8.8	14.9	10.5	10.9
HCM Lane LOS	B	A	B	A	A	B	B	B
HCM 95th-tile Q	0.1	0.2	1.9	0.8	0	3.4	1.2	0.9

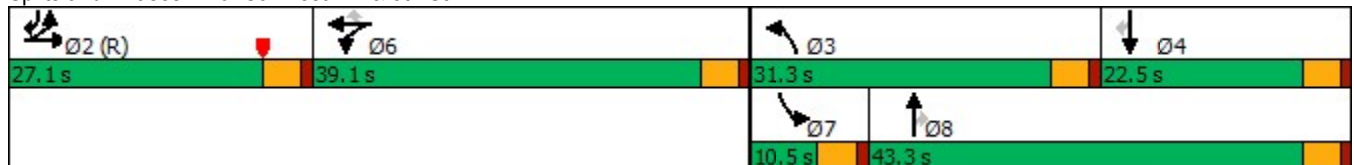
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	136	181	17	318	20	223	480	162	23	163	313
Future Volume (vph)	136	181	17	318	20	223	480	162	23	163	313
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	28.8	28.8	28.8	22.1	48.4	48.4	6.4	28.5	55.6
Actuated g/C Ratio	0.19	0.19	0.24	0.24	0.24	0.18	0.40	0.40	0.05	0.24	0.46
v/c Ratio	0.46	0.45	0.05	0.84	0.05	0.80	0.40	0.28	0.29	0.43	0.43
Control Delay	48.9	43.1	32.6	59.9	0.2	65.0	28.6	15.3	62.5	45.9	11.9
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	48.9	43.1	32.6	59.9	0.2	65.0	28.6	15.3	62.5	45.9	11.9
LOS	D	D	C	E	A	E	C	B	E	D	B
Approach Delay		45.0		55.1			35.5			25.3	
Approach LOS		D		E			D			C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 38.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 59.7%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	181	42	17	318	20	223	480	162	23	163	313
Future Volume (veh/h)	136	181	42	17	318	20	223	480	162	23	163	313
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	240	49	20	374	24	262	565	191	27	192	368
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	494	839	168	400	420	356	293	1149	512	44	343	730
Arrive On Green	0.28	0.28	0.28	0.22	0.22	0.22	0.16	0.32	0.32	0.02	0.18	0.18
Sat Flow, veh/h	1781	3025	607	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	141	147	142	20	374	24	262	565	191	27	192	368
Grp Sat Flow(s),veh/h/ln	1781	1870	1761	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	7.5	7.4	7.6	1.1	23.3	1.4	17.3	15.4	11.1	1.8	11.2	19.6
Cycle Q Clear(g_c), s	7.5	7.4	7.6	1.1	23.3	1.4	17.3	15.4	11.1	1.8	11.2	19.6
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	494	519	488	400	420	356	293	1149	512	44	343	730
V/C Ratio(X)	0.29	0.28	0.29	0.05	0.89	0.07	0.89	0.49	0.37	0.61	0.56	0.50
Avail Cap(c_a), veh/h	494	519	488	514	539	457	398	1149	512	89	343	730
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(l)	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	34.0	34.0	34.1	36.5	45.1	36.6	49.1	32.7	31.2	57.9	44.6	22.7
Incr Delay (d2), s/veh	1.5	1.4	1.5	0.1	14.0	0.1	17.6	1.5	2.1	13.0	6.4	2.5
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	3.4	3.6	3.5	0.5	12.5	0.6	9.0	6.8	4.5	1.0	5.8	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	35.4	35.6	36.5	59.1	36.7	66.7	34.2	33.3	71.0	51.0	25.2
LnGrp LOS	D	D	D	D	E	D	E	C	C	E	D	C
Approach Vol, veh/h		430			418			1018			587	
Approach Delay, s/veh		35.5			56.7			42.4			35.7	
Approach LOS		D			E			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		37.8	24.2	26.5		31.5	7.5	43.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		9.6	19.3	21.6		25.3	3.8	17.4				
Green Ext Time (p_c), s		1.7	0.5	0.0		1.7	0.0	4.4				

Intersection Summary

HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

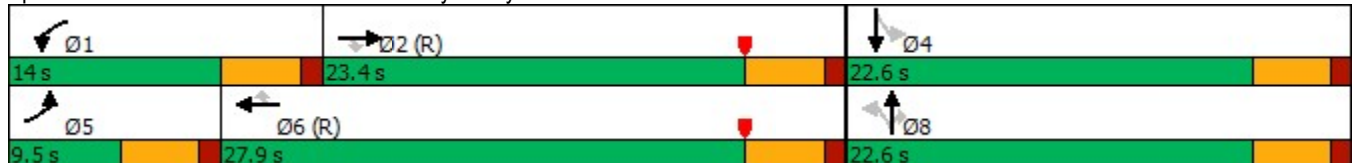
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	306	435	21	127	390	338	12	23	121	468	21
Future Volume (vph)	306	435	21	127	390	338	12	23	121	468	21
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	23.4	23.4	14.0	27.9	27.9	22.6	22.6	22.6	22.6	22.6
Total Split (%)	15.8%	39.0%	39.0%	23.3%	46.5%	46.5%	37.7%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	21.9	21.9	8.6	23.4	23.4	18.1	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.08	0.36	0.36	0.14	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	2.29	0.37	0.04	0.55	0.31	0.44	0.04	0.04	0.23	0.23	1.73
Control Delay	619.6	16.3	0.1	32.4	13.5	3.5	15.2	15.2	4.8	4.8	360.2
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	619.6	16.3	0.1	32.4	13.5	3.5	15.2	15.2	4.8	4.8	360.2
LOS	F	B	A	C	B	A	B	B	A	A	F
Approach Delay		258.0			12.4			7.1			360.2
Approach LOS		F			B			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.29  
 Intersection Signal Delay: 186.9  
 Intersection Capacity Utilization 86.2%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	435	21	127	390	338	12	23	121	468	21	221
Future Volume (veh/h)	306	435	21	127	390	338	12	23	121	468	21	221
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	336	478	23	140	429	371	13	25	133	514	23	243
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1324	591	179	1386	618	493	564	478	357	12	122
Arrive On Green	0.08	0.37	0.37	0.10	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1113	1870	1585	853	38	403
Grp Volume(v), veh/h	336	478	23	140	429	371	13	25	133	780	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1113	1870	1585	1294	0	0
Q Serve(g_s), s	5.0	5.8	0.6	4.6	5.0	11.2	0.0	0.6	3.8	17.5	0.0	0.0
Cycle Q Clear(g_c), s	5.0	5.8	0.6	4.6	5.0	11.2	0.4	0.6	3.8	18.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.66		0.31
Lane Grp Cap(c), veh/h	148	1324	591	179	1386	618	493	564	478	490	0	0
V/C Ratio(X)	2.26	0.36	0.04	0.78	0.31	0.60	0.03	0.04	0.28	1.59	0.00	0.00
Avail Cap(c_a), veh/h	148	1324	591	282	1386	618	493	564	478	490	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	13.6	12.0	26.3	12.7	14.6	14.8	14.8	16.0	23.0	0.0	0.0
Incr Delay (d2), s/veh	589.5	0.8	0.1	7.2	0.6	4.3	0.1	0.1	1.4	276.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.3	2.2	0.2	2.2	1.8	4.1	0.1	0.2	1.5	44.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	617.0	14.4	12.1	33.5	13.3	18.8	14.9	15.0	17.4	299.2	0.0	0.0
LnGrp LOS	F	B	B	C	B	B	B	B	B	F	A	A
Approach Vol, veh/h		837			940			171			780	
Approach Delay, s/veh		256.3			18.5			16.9			299.2	
Approach LOS		F			B			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	26.9		22.6	9.5	27.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	18.9		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	6.6	7.8		20.1	7.0	13.2		5.8				
Green Ext Time (p_c), s	0.1	2.3		0.0	0.0	3.0		0.4				

Intersection Summary

HCM 6th Ctrl Delay	171.6
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.



**Intersection**

Intersection Delay, s/veh 73.5  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	827	197	301	439	0	0	0	0	291	0	415
Future Vol, veh/h	0	827	197	301	439	0	0	0	0	291	0	415
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	889	212	324	472	0	0	0	0	313	0	446
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	530	295.1	228.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	41%	41%
Vol Thru, %	81%	59%	0%
Vol Right, %	19%	0%	59%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1024	740	706
LT Vol	0	301	291
Through Vol	827	439	0
RT Vol	197	0	415
Lane Flow Rate	1101	796	759
Geometry Grp	1	1	1
Degree of Util (X)	2.115	1.572	1.426
Departure Headway (Hd)	8.893	9.883	8.578
Convergence, Y/N	Yes	Yes	Yes
Cap	418	374	433
Service Time	6.893	7.883	6.578
HCM Lane V/C Ratio	2.634	2.128	1.753
HCM Control Delay	530	295.1	228.6
HCM Lane LOS	F	F	F
HCM 95th-tile Q	61.6	32.6	29.9

Intersection												
Intersection Delay, s/veh	513											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	626	490	0	0	556	549	185	11	400	0	0	0
Future Vol, veh/h	626	490	0	0	556	549	185	11	400	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	673	527	0	0	598	590	199	12	430	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	649.6	578.2	136.4
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	31%	56%	0%
Vol Thru, %	2%	44%	50%
Vol Right, %	67%	0%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	596	1116	1105
LT Vol	185	626	0
Through Vol	11	490	556
RT Vol	400	0	549
Lane Flow Rate	641	1200	1188
Geometry Grp	1	1	1
Degree of Util (X)	1.191	2.381	2.222
Departure Headway (Hd)	8.944	9.383	9.162
Convergence, Y/N	Yes	Yes	Yes
Cap	410	396	416
Service Time	6.944	7.383	7.162
HCM Lane V/C Ratio	1.563	3.03	2.856
HCM Control Delay	136.4	649.6	578.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	19	71.1	65.1

Intersection						
Int Delay, s/veh	26.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	421	468	911	153	58	193
Future Vol, veh/h	421	468	911	153	58	193
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	490	544	1059	178	67	224

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1237	0	-	0	2672 1148
Stage 1	-	-	-	-	1148 -
Stage 2	-	-	-	-	1524 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	563	-	-	-	~ 25 242
Stage 1	-	-	-	-	302 -
Stage 2	-	-	-	-	198 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	563	-	-	-	0 242
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	198 -

Approach	EB	WB	SB
HCM Control Delay, s	19	0	167.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	563	-	-	-	242
HCM Lane V/C Ratio	0.87	-	-	-	1.206
HCM Control Delay (s)	40	0	-	-	167.3
HCM Lane LOS	E	A	-	-	F
HCM 95th %tile Q(veh)	9.7	-	-	-	14

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	31.5
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	324	2	0	541	223	0
Future Vol, veh/h	324	2	0	541	223	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	360	2	0	601	248	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.7	45.3	13.8
HCM LOS	C	E	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	541	326	223
LT Vol	0	324	0
Through Vol	541	0	223
RT Vol	0	2	0
Lane Flow Rate	601	362	248
Geometry Grp	1	1	1
Degree of Util (X)	0.936	0.648	0.423
Departure Headway (Hd)	5.606	6.438	6.153
Convergence, Y/N	Yes	Yes	Yes
Cap	643	558	580
Service Time	3.682	4.518	4.251
HCM Lane V/C Ratio	0.935	0.649	0.428
HCM Control Delay	45.3	20.7	13.8
HCM Lane LOS	E	C	B
HCM 95th-tile Q	12.6	4.6	2.1

Intersection						
Int Delay, s/veh	7.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	97	55	22	70	36	9
Future Vol, veh/h	97	55	22	70	36	9
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	194	110	44	140	72	18

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	276	114	0	0	184
Stage 1	114	-	-	-	-
Stage 2	162	-	-	-	-
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	714	939	-	-	1391
Stage 1	911	-	-	-	-
Stage 2	867	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	677	939	-	-	1391
Mov Cap-2 Maneuver	677	-	-	-	-
Stage 1	911	-	-	-	-
Stage 2	822	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	6.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	753	1391
HCM Lane V/C Ratio	-	-	0.404	0.052
HCM Control Delay (s)	-	-	13	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	2	0.2

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↓		↑↓		↑↓	↑↓
Traffic Vol, veh/h	25	51	734	25	51	369
Future Vol, veh/h	25	51	734	25	51	369
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	-	-	-	150	-
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	27	55	798	27	55	401

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1323	413	0	0	825
Stage 1	812	-	-	-	-
Stage 2	511	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	159	589	-	-	803
Stage 1	398	-	-	-	-
Stage 2	601	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	148	589	-	-	803
Mov Cap-2 Maneuver	277	-	-	-	-
Stage 1	398	-	-	-	-
Stage 2	560	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	430	803
HCM Lane V/C Ratio	-	-	0.192	0.069
HCM Control Delay (s)	-	-	15.4	9.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↓		↑↓		↑↓	↑
Traffic Vol, veh/h	25	127	632	25	127	268
Future Vol, veh/h	25	127	632	25	127	268
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	-	-	-	150	-
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	27	138	687	27	138	291

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1268	357	0	0	714
Stage 1	701	-	-	-	-
Stage 2	567	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	173	640	-	-	884
Stage 1	454	-	-	-	-
Stage 2	567	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	146	640	-	-	884
Mov Cap-2 Maneuver	279	-	-	-	-
Stage 1	454	-	-	-	-
Stage 2	479	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	3.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	528	884
HCM Lane V/C Ratio	-	-	0.313	0.156
HCM Control Delay (s)	-	-	14.9	9.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.6

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	71	152	505	58	122	171
Future Vol, veh/h	71	152	505	58	122	171
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	-	-	-	150	-
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	77	165	549	63	133	186

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1033	306	0	0	612	0
Stage 1	581	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	242	691	-	-	965	-
Stage 1	523	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	209	691	-	-	965	-
Mov Cap-2 Maneuver	340	-	-	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	552	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	3.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	520	965
HCM Lane V/C Ratio	-	-	0.466	0.137
HCM Control Delay (s)	-	-	17.8	9.3
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.4	0.5



Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	51	76	488	51	76	167
Future Vol, veh/h	51	76	488	51	76	167
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	-	-	-	150	-
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	55	83	530	55	83	182

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	906	293	0	0	585
Stage 1	558	-	-	-	-
Stage 2	348	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	291	704	-	-	988
Stage 1	538	-	-	-	-
Stage 2	714	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	267	704	-	-	988
Mov Cap-2 Maneuver	389	-	-	-	-
Stage 1	538	-	-	-	-
Stage 2	654	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	2.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	531	988
HCM Lane V/C Ratio	-	-	0.26	0.084
HCM Control Delay (s)	-	-	14.1	9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.3

Intersection												
Int Delay, s/veh	296											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	295	141	251	109	0	0	0	0	395	0	122
Future Vol, veh/h	0	295	141	251	109	0	0	0	0	395	0	122
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	324	155	276	120	0	0	0	0	429	0	133

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	479	0	0		1074	1151	120
Stage 1	-	-	-	-	-	-		672	672	-
Stage 2	-	-	-	-	-	-		402	479	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1083	-	0		~ 243	198	931
Stage 1	0	-	-	-	-	0		508	454	-
Stage 2	0	-	-	-	-	0		676	555	-
Platoon blocked, %	-	-	-	-	-	-		-	-	-
Mov Cap-1 Maneuver	-	-	-	1083	-	-		~ 177	0	931
Mov Cap-2 Maneuver	-	-	-	-	-	-		~ 177	0	-
Stage 1	-	-	-	-	-	-		508	0	-
Stage 2	-	-	-	-	-	-		491	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	6.6	\$ 752.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1083	-	219
HCM Lane V/C Ratio	-	-	0.255	-	2.566
HCM Control Delay (s)	-	-	9.5	0	\$ 752.1
HCM Lane LOS	-	-	A	A	F
HCM 95th %tile Q(veh)	-	-	1	-	47.3

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	20.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	450	0	0	298	63	398
Future Vol, veh/h	450	0	0	298	63	398
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	489	0	0	324	68	433

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	813 489
Stage 1	-	-	-	-	489 -
Stage 2	-	-	-	-	324 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	348 579
Stage 1	-	0	0	-	616 -
Stage 2	-	0	0	-	733 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	348 579
Mov Cap-2 Maneuver	-	-	-	-	348 -
Stage 1	-	-	-	-	616 -
Stage 2	-	-	-	-	733 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	54.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	531	-	-
HCM Lane V/C Ratio	0.944	-	-
HCM Control Delay (s)	54.2	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	12	-	-

Intersection	
Intersection Delay, s/veh	298.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	91	319	439	74	305	72	211	59	29	159	130	137
Future Vol, veh/h	91	319	439	74	305	72	211	59	29	159	130	137
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	94	329	453	76	314	74	218	61	30	164	134	141
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	552.9	146	60	121.4
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	71%	11%	16%	37%
Vol Thru, %	20%	38%	68%	31%
Vol Right, %	10%	52%	16%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	299	849	451	426
LT Vol	211	91	74	159
Through Vol	59	319	305	130
RT Vol	29	439	72	137
Lane Flow Rate	308	875	465	439
Geometry Grp	1	1	1	1
Degree of Util (X)	0.826	2.161	1.177	1.105
Departure Headway (Hd)	14.026	9.787	12.53	12.496
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	262	385	293	294
Service Time	12.026	7.787	10.53	10.496
HCM Lane V/C Ratio	1.176	2.273	1.587	1.493
HCM Control Delay	60	552.9	146	121.4
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	6.6	58.5	14.9	13

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	478	29	5	434	17	4
Future Vol, veh/h	478	29	5	434	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	503	31	5	457	18	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	534	0	986 519
Stage 1	-	-	-	-	519 -
Stage 2	-	-	-	-	467 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1034	-	275 557
Stage 1	-	-	-	-	597 -
Stage 2	-	-	-	-	631 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1034	-	274 557
Mov Cap-2 Maneuver	-	-	-	-	274 -
Stage 1	-	-	-	-	597 -
Stage 2	-	-	-	-	628 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	303	-	-	1034	-
HCM Lane V/C Ratio	0.073	-	-	0.005	-
HCM Control Delay (s)	17.8	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	89	394	1	1	377	14	1	1	2	17	1	42
Future Vol, veh/h	89	394	1	1	377	14	1	1	2	17	1	42
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	93	410	1	1	393	15	1	1	2	18	1	44
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.2	10.4	9.1	9.5
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	28%
Vol Thru, %	25%	0%	100%	99%	0%	100%	90%	2%
Vol Right, %	50%	0%	0%	1%	0%	0%	10%	70%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	89	263	132	1	251	140	60
LT Vol	1	89	0	0	1	0	0	17
Through Vol	1	0	263	131	0	251	126	1
RT Vol	2	0	0	1	0	0	14	42
Lane Flow Rate	4	93	274	138	1	262	145	62
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.007	0.144	0.387	0.195	0.002	0.378	0.207	0.105
Departure Headway (Hd)	6.285	5.596	5.094	5.089	5.7	5.198	5.127	6.045
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	565	640	706	703	626	691	698	589
Service Time	4.077	3.341	2.839	2.834	3.447	2.945	2.874	3.82
HCM Lane V/C Ratio	0.007	0.145	0.388	0.196	0.002	0.379	0.208	0.105
HCM Control Delay	9.1	9.3	11	9.1	8.5	11.1	9.2	9.5
HCM Lane LOS	A	A	B	A	A	B	A	A
HCM 95th-tile Q	0	0.5	1.8	0.7	0	1.8	0.8	0.4

Timings  
6: Calimesa Bl. & 5th St.

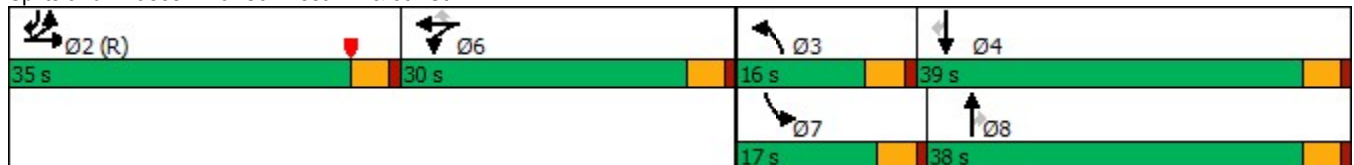


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	97	90	40	189	28	82	363	171	32	316	345
Future Volume (vph)	97	90	40	189	28	82	363	171	32	316	345
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	18.3	18.3	18.3	10.5	49.6	49.6	7.8	42.7	77.7
Actuated g/C Ratio	0.25	0.25	0.15	0.15	0.15	0.09	0.41	0.41	0.06	0.36	0.65
v/c Ratio	0.23	0.23	0.16	0.71	0.09	0.56	0.26	0.25	0.30	0.51	0.32
Control Delay	37.3	19.5	43.2	61.4	0.6	66.6	26.2	12.5	59.4	35.5	2.7
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	37.3	19.5	43.2	61.4	0.6	66.6	26.2	12.5	59.4	35.5	2.7
LOS	D	B	D	E	A	E	C	B	E	D	A
Approach Delay		25.2		51.9			27.8			20.3	
Approach LOS		C		D			C			C	

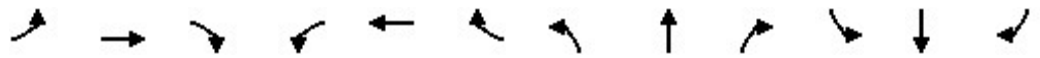
Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 27.9  
 Intersection Capacity Utilization 51.5%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	90	86	40	189	28	82	363	171	32	316	345
Future Volume (veh/h)	97	90	86	40	189	28	82	363	171	32	316	345
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	97	105	91	43	201	30	87	386	182	34	336	367
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	661	719	567	231	243	206	110	1141	509	50	538	1044
Arrive On Green	0.37	0.37	0.37	0.13	0.13	0.13	0.06	0.32	0.32	0.03	0.29	0.29
Sat Flow, veh/h	1781	1938	1528	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	97	101	95	43	201	30	87	386	182	34	336	367
Grp Sat Flow(s),veh/h/ln	1781	1870	1595	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.3	4.3	4.8	2.6	12.6	2.0	5.8	9.9	10.6	2.3	18.7	12.3
Cycle Q Clear(g_c), s	4.3	4.3	4.8	2.6	12.6	2.0	5.8	9.9	10.6	2.3	18.7	12.3
Prop In Lane	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	661	694	592	231	243	206	110	1141	509	50	538	1044
V/C Ratio(X)	0.15	0.15	0.16	0.19	0.83	0.15	0.79	0.34	0.36	0.68	0.62	0.35
Avail Cap(c_a), veh/h	661	694	592	379	397	337	171	1141	509	186	538	1044
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(l)	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	25.1	25.1	25.2	46.6	50.9	46.3	55.5	31.0	31.3	57.8	37.1	9.1
Incr Delay (d2), s/veh	0.5	0.4	0.6	0.4	7.3	0.3	12.7	0.8	2.0	14.6	5.4	0.9
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	1.9	2.0	1.9	1.2	6.4	0.8	3.0	4.4	4.3	1.2	9.3	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	25.5	25.8	46.9	58.2	46.6	68.2	31.8	33.2	72.4	42.5	10.0
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	B
Approach Vol, veh/h		293			274			655			737	
Approach Delay, s/veh		25.6			55.2			37.1			27.7	
Approach LOS		C			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.0	11.9	39.0		20.1	7.9	43.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		6.8	7.8	20.7		14.6	4.3	12.6				
Green Ext Time (p_c), s		1.4	0.1	2.8		1.0	0.0	3.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	161	529	24	258	581	346	24	8	139	266	12
Future Volume (vph)	161	529	24	258	581	346	24	8	139	266	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0		18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30		0.30
v/c Ratio	1.15	0.52	0.04	0.88	0.44	0.44	0.09	0.01	0.24		1.11
Control Delay	152.2	19.6	0.1	56.3	14.7	4.2	16.2	15.0	2.6		97.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	152.2	19.6	0.1	56.3	14.7	4.2	16.2	15.0	2.6		97.7
LOS	F	B	A	E	B	A	B	B	A		F
Approach Delay		48.8			20.7			5.1			97.7
Approach LOS		D			C			A			F

**Intersection Summary**

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.15  
 Intersection Signal Delay: 42.8  
 Intersection Capacity Utilization 76.7%  
 Analysis Period (min) 15

Intersection LOS: D  
 ICU Level of Service D

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	529	24	258	581	346	24	8	139	266	12	237
Future Volume (veh/h)	161	529	24	258	581	346	24	8	139	266	12	237
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	169	557	25	272	612	364	25	8	146	280	13	249
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	1066	476	312	1392	621	418	561	476	304	10	189
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1117	1870	1585	709	33	630
Grp Volume(v), veh/h	169	557	25	272	612	364	25	8	146	542	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1117	1870	1585	1372	0	0
Q Serve(g_s), s	5.0	7.8	0.7	8.9	7.6	10.9	0.0	0.2	4.3	17.8	0.0	0.0
Cycle Q Clear(g_c), s	5.0	7.8	0.7	8.9	7.6	10.9	1.1	0.2	4.3	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.52		0.46
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	418	561	476	503	0	0
V/C Ratio(X)	1.14	0.52	0.05	0.87	0.44	0.59	0.06	0.01	0.31	1.08	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	418	561	476	503	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	17.4	14.9	24.1	13.4	14.4	15.1	14.8	16.2	22.7	0.0	0.0
Incr Delay (d2), s/veh	115.9	1.8	0.2	22.7	1.0	4.0	0.3	0.0	1.7	63.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	3.1	0.2	5.4	2.8	4.0	0.3	0.1	1.6	15.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	143.4	19.3	15.1	46.8	14.4	18.4	15.4	14.8	17.9	85.7	0.0	0.0
LnGrp LOS	F	B	B	D	B	B	B	B	B	F	A	A
Approach Vol, veh/h		751			1248			179				542
Approach Delay, s/veh		47.1			22.6			17.4				85.7
Approach LOS		D			C			B				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	10.9	9.8		20.0	7.0	12.9		6.3				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	4.0		0.4				

Intersection Summary

HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	445.5											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	715	219	265	456	0	0	0	0	476	0	728
Future Vol, veh/h	0	715	219	265	456	0	0	0	0	476	0	728
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	722	221	268	461	0	0	0	0	481	0	735
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	399.5	244.6	601.4
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	37%	40%
Vol Thru, %	77%	63%	0%
Vol Right, %	23%	0%	60%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	934	721	1204
LT Vol	0	265	476
Through Vol	715	456	0
RT Vol	219	0	728
Lane Flow Rate	943	728	1216
Geometry Grp	1	1	1
Degree of Util (X)	1.806	1.437	2.28
Departure Headway (Hd)	10.878	11.775	8.197
Convergence, Y/N	Yes	Yes	Yes
Cap	349	313	462
Service Time	8.878	9.775	6.197
HCM Lane V/C Ratio	2.702	2.326	2.632
HCM Control Delay	399.5	244.6	601.4
HCM Lane LOS	F	F	F
HCM 95th-tile Q	39.1	23.7	75.3

<b>Intersection</b>												
Intersection Delay, s/veh	65.9											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	454	737	0	0	490	417	229	8	387	0	0	0
Future Vol, veh/h	454	737	0	0	490	417	229	8	387	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	478	776	0	0	516	439	241	8	407	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	690.2	388.6	150.2
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	37%	38%	0%
Vol Thru, %	1%	62%	54%
Vol Right, %	62%	0%	46%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	624	1191	907
LT Vol	229	454	0
Through Vol	8	737	490
RT Vol	387	0	417
Lane Flow Rate	657	1254	955
Geometry Grp	1	1	1
Degree of Util (X)	1.228	2.475	1.791
Departure Headway (Hd)	8.919	8.868	9.423
Convergence, Y/N	Yes	Yes	Yes
Cap	414	426	401
Service Time	6.919	6.868	7.423
HCM Lane V/C Ratio	1.587	2.944	2.382
HCM Control Delay	150.2	690.2	388.6
HCM Lane LOS	F	F	F
HCM 95th-tile Q	20.5	79.6	43.7

Intersection						
Int Delay, s/veh	518					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	242	882	726	60	98	181
Future Vol, veh/h	242	882	726	60	98	181
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	263	959	789	65	107	197

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	854	0	-	0	2307 822
Stage 1	-	-	-	-	822 -
Stage 2	-	-	-	-	1485 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	785	-	-	-	~ 42 374
Stage 1	-	-	-	-	432 -
Stage 2	-	-	-	-	207 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	785	-	-	-	~ 12 374
Mov Cap-2 Maneuver	-	-	-	-	~ 12 -
Stage 1	-	-	-	-	122 -
Stage 2	-	-	-	-	207 -

Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	\$ 4054
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	785	-	-	-	32
HCM Lane V/C Ratio	0.335	-	-	-	9.477
HCM Control Delay (s)	11.9	0	-	-	-\$ 4054
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	1.5	-	-	-	37

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	21.2
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	376	1	0	240	442	0
Future Vol, veh/h	376	1	0	240	442	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	404	1	0	258	475	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	22.2	13.8	24.4
HCM LOS	C	B	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	240	377	442
LT Vol	0	376	0
Through Vol	240	0	442
RT Vol	0	1	0
Lane Flow Rate	258	405	475
Geometry Grp	1	1	1
Degree of Util (X)	0.435	0.694	0.755
Departure Headway (Hd)	6.068	6.165	5.72
Convergence, Y/N	Yes	Yes	Yes
Cap	588	584	627
Service Time	4.156	4.236	3.794
HCM Lane V/C Ratio	0.439	0.693	0.758
HCM Control Delay	13.8	22.2	24.4
HCM Lane LOS	B	C	C
HCM 95th-tile Q	2.2	5.5	6.8

Intersection						
Int Delay, s/veh	10.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	106	30	15	94	144	15
Future Vol, veh/h	106	30	15	94	144	15
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	50	25	157	240	25

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	609	104	0	0	182
Stage 1	104	-	-	-	-
Stage 2	505	-	-	-	-
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	458	951	-	-	1393
Stage 1	920	-	-	-	-
Stage 2	606	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	378	951	-	-	1393
Mov Cap-2 Maneuver	378	-	-	-	-
Stage 1	920	-	-	-	-
Stage 2	500	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.9	0	7.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	436	1393
HCM Lane V/C Ratio	-	-	0.52	0.172
HCM Control Delay (s)	-	-	21.9	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.9	0.6

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	14	27	271	29	57	586
Future Vol, veh/h	14	27	271	29	57	586
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	-	-	-	150	-
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	15	29	295	32	62	637

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1072	164	0	0	327
Stage 1	311	-	-	-	-
Stage 2	761	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	229	852	-	-	1231
Stage 1	717	-	-	-	-
Stage 2	460	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	218	852	-	-	1231
Mov Cap-2 Maneuver	338	-	-	-	-
Stage 1	717	-	-	-	-
Stage 2	437	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	561	1231
HCM Lane V/C Ratio	-	-	0.079	0.05
HCM Control Delay (s)	-	-	12	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2



Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	68	232	29	143	456
Future Vol, veh/h	14	68	232	29	143	456
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	-	-	-	150	-
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	15	74	252	32	155	496

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1074	142	0	0	284
Stage 1	268	-	-	-	-
Stage 2	806	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	229	880	-	-	1277
Stage 1	753	-	-	-	-
Stage 2	438	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	201	880	-	-	1277
Mov Cap-2 Maneuver	309	-	-	-	-
Stage 1	753	-	-	-	-
Stage 2	385	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	669	1277
HCM Lane V/C Ratio	-	-	0.133	0.122
HCM Control Delay (s)	-	-	11.2	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4

Intersection									
Int Delay, s/veh	4								
Movement									
	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	↔	↔	↕	↕	↔	↔			
Traffic Vol, veh/h	43	93	168	91	197	273			
Future Vol, veh/h	43	93	168	91	197	273			
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	-	-	-	150	-			
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	47	101	183	99	214	297			

Major/Minor							Minor1	Major1	Major2
Conflicting Flow All	958	141	0	0	282	0			
Stage 1	233	-	-	-	-	-			
Stage 2	725	-	-	-	-	-			
Critical Hdwy	6.63	6.93	-	-	4.13	-			
Critical Hdwy Stg 1	5.83	-	-	-	-	-			
Critical Hdwy Stg 2	5.43	-	-	-	-	-			
Follow-up Hdwy	3.519	3.319	-	-	2.219	-			
Pot Cap-1 Maneuver	270	882	-	-	1279	-			
Stage 1	784	-	-	-	-	-			
Stage 2	478	-	-	-	-	-			
Platoon blocked, %	-	-	-	-	-	-			
Mov Cap-1 Maneuver	225	882	-	-	1279	-			
Mov Cap-2 Maneuver	326	-	-	-	-	-			
Stage 1	784	-	-	-	-	-			
Stage 2	398	-	-	-	-	-			

Approach				WB	NB	SB
HCM Control Delay, s	13.5	0	3.5			
HCM LOS	B					

Minor Lane/Major Mvmt							NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	573	1279	-	-				
HCM Lane V/C Ratio	-	-	0.258	0.167	-	-				
HCM Control Delay (s)	-	-	13.5	8.4	-	-				
HCM Lane LOS	-	-	B	A	-	-				
HCM 95th %tile Q(veh)	-	-	1	0.6	-	-				

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↓		↑↓		↑↓	↑
Traffic Vol, veh/h	27	40	218	58	86	230
Future Vol, veh/h	27	40	218	58	86	230
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	-	-	-	150	-
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	29	43	237	63	93	250

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	705	150	0	0	300
Stage 1	269	-	-	-	-
Stage 2	436	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	386	870	-	-	1260
Stage 1	753	-	-	-	-
Stage 2	651	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	357	870	-	-	1260
Mov Cap-2 Maneuver	464	-	-	-	-
Stage 1	753	-	-	-	-
Stage 2	603	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	643	1260
HCM Lane V/C Ratio	-	-	0.113	0.074
HCM Control Delay (s)	-	-	11.3	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2

**APPENDIX 5.5: OPENING YEAR CUMULATIVE (2025) WITHOUT  
PROJECT CONDITIONS WITH IMPROVEMENTS INTERSECTION  
OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Lanes, Volumes, Timings  
1: Singleton Rd. & I-10 EB Ramps

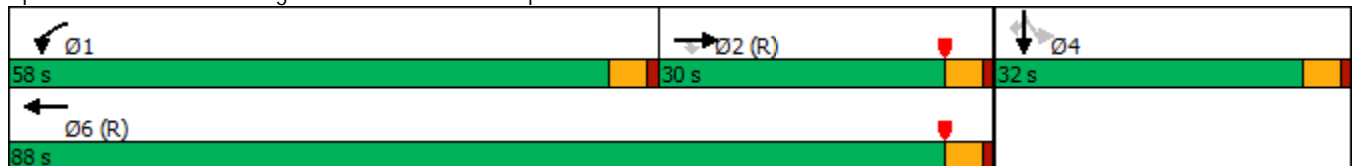
OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	112	41	340	156	0	0	0	0	30	0	209
Future Volume (vph)	0	112	41	340	156	0	0	0	0	30	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	70		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			60			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1255			647			1041			468	
Travel Time (s)		28.5			14.7			23.7			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		30.0	30.0	58.0	88.0					32.0	32.0	32.0
Total Split (%)		25.0%	25.0%	48.3%	73.3%					26.7%	26.7%	26.7%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	112	41	340	156	0	0	0	0	30	0	209
Future Volume (veh/h)	0	112	41	340	156	0	0	0	0	30	0	209
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	123	45	374	171	0				33	0	230
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	807	684	405	1301	0				408	0	363
Arrive On Green	0.00	0.43	0.43	0.38	1.00	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	123	45	374	171	0				33	0	230
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	4.8	2.0	24.1	0.0	0.0				1.7	0.0	15.7
Cycle Q Clear(g_c), s	0.0	4.8	2.0	24.1	0.0	0.0				1.7	0.0	15.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	807	684	405	1301	0				408	0	363
V/C Ratio(X)	0.00	0.15	0.07	0.92	0.13	0.00				0.08	0.00	0.63
Avail Cap(c_a), veh/h	0	807	684	794	1301	0				408	0	363
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.8	20.0	36.3	0.0	0.0				36.3	0.0	41.7
Incr Delay (d2), s/veh	0.0	0.4	0.2	8.9	0.2	0.0				0.4	0.0	8.2
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	2.2	0.8	10.1	0.1	0.0				0.8	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.2	20.2	45.2	0.2	0.0				36.7	0.0	49.9
LnGrp LOS	A	C	C	D	A	A				D	A	D
Approach Vol, veh/h		168			545						263	
Approach Delay, s/veh		20.9			31.1						48.2	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	31.8	56.2		32.0		88.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	53.5	25.5		27.5		83.5						
Max Q Clear Time (g_c+I1), s	26.1	6.8		17.7		2.0						
Green Ext Time (p_c), s	1.2	0.7		0.7		1.1						

Intersection Summary

HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
2: Singleton Rd. & I-10 WB Ramps

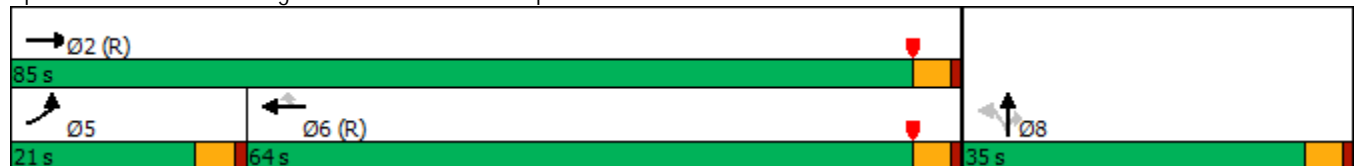
OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	70	0	0	384	208	111	0	205	0	0	0
Future Volume (vph)	72	70	0	0	384	208	111	0	205	0	0	0
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70		0	0		200	200		50	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	60			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		647			547			1033			503	
Travel Time (s)		14.7			12.4			23.5			11.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5	22.5			
Total Split (s)	21.0	85.0			64.0	64.0	35.0	35.0	35.0			
Total Split (%)	17.5%	70.8%			53.3%	53.3%	29.2%	29.2%	29.2%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated



















Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps





HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	70	0	0	384	208	111	0	205	0	0	0
Future Volume (veh/h)	72	70	0	0	384	208	111	0	205	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	77	75	0	0	413	224	119	0	220			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	98	1429	0	0	1255	1064	287	0	256			
Arrive On Green	0.09	1.00	0.00	0.00	1.00	1.00	0.16	0.00	0.16			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	77	75	0	0	413	224	119	0	220			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	5.1	0.0	0.0	0.0	0.0	0.0	7.2	0.0	16.2			
Cycle Q Clear(g_c), s	5.1	0.0	0.0	0.0	0.0	0.0	7.2	0.0	16.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	98	1429	0	0	1255	1064	287	0	256			
V/C Ratio(X)	0.78	0.05	0.00	0.00	0.33	0.21	0.41	0.00	0.86			
Avail Cap(c_a), veh/h	245	1429	0	0	1255	1064	453	0	403			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.37	0.37	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.8	0.0	0.0	0.0	0.0	0.0	45.2	0.0	49.0			
Incr Delay (d2), s/veh	12.6	0.1	0.0	0.0	0.3	0.2	1.0	0.0	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			
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	0.0	0.1	0.0	3.3	0.0	7.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	0.1	0.0	0.0	0.3	0.2	46.2	0.0	59.7			
LnGrp LOS	E	A	A	A	A	A	D	A	E			
Approach Vol, veh/h		152			637			339				
Approach Delay, s/veh		33.6			0.2			55.0				
Approach LOS		C			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		96.2			11.1	85.0		23.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		80.5			16.5	59.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0			7.1	2.0		18.2				
Green Ext Time (p_c), s		0.4			0.1	3.7		1.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					21.2							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

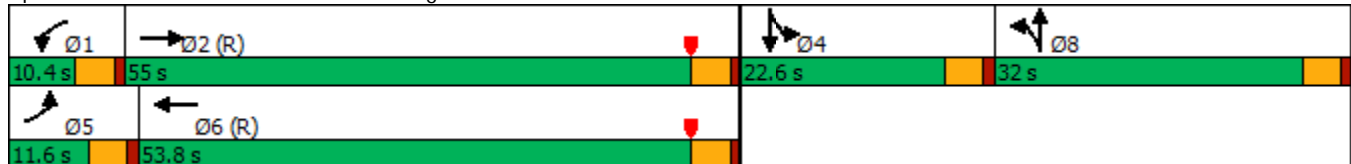
OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	196	2	23	447	176	5	241	133	64	20	141
Future Volume (vph)	77	196	2	23	447	176	5	241	133	64	20	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		547			300			710			1412	
Travel Time (s)		12.4			6.8			16.1			32.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	11.6	55.0		10.4	53.8		32.0	32.0		22.6	22.6	
Total Split (%)	9.7%	45.8%		8.7%	44.8%		26.7%	26.7%		18.8%	18.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	196	2	23	447	176	5	241	133	64	20	141
Future Volume (veh/h)	77	196	2	23	447	176	5	241	133	64	20	141
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	83	211	2	25	481	189	5	259	143	69	22	152
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	873	8	42	559	220	5	256	142	223	26	177
Arrive On Green	0.12	0.94	0.94	0.02	0.44	0.44	0.46	0.46	0.46	0.13	0.13	0.13
Sat Flow, veh/h	1781	1850	18	1781	1278	502	22	1119	618	1781	204	1412
Grp Volume(v), veh/h	83	0	213	25	0	670	407	0	0	69	0	174
Grp Sat Flow(s),veh/h/ln	1781	0	1867	1781	0	1780	1758	0	0	1781	0	1616
Q Serve(g_s), s	5.4	0.0	1.0	1.7	0.0	40.8	27.5	0.0	0.0	4.2	0.0	12.7
Cycle Q Clear(g_c), s	5.4	0.0	1.0	1.7	0.0	40.8	27.5	0.0	0.0	4.2	0.0	12.7
Prop In Lane	1.00		0.01	1.00		0.28	0.01		0.35	1.00		0.87
Lane Grp Cap(c), veh/h	104	0	881	42	0	779	403	0	0	223	0	202
V/C Ratio(X)	0.80	0.00	0.24	0.60	0.00	0.86	1.01	0.00	0.00	0.31	0.00	0.86
Avail Cap(c_a), veh/h	105	0	881	88	0	779	403	0	0	269	0	244
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.00	0.90	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.3	0.0	1.8	58.0	0.0	30.5	32.5	0.0	0.0	47.8	0.0	51.4
Incr Delay (d2), s/veh	31.1	0.0	0.6	12.8	0.0	12.0	47.4	0.0	0.0	0.8	0.0	22.2
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	3.2	0.0	0.5	0.9	0.0	19.7	14.4	0.0	0.0	1.9	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.5	0.0	2.4	70.8	0.0	42.4	79.9	0.0	0.0	48.5	0.0	73.6
LnGrp LOS	F	A	A	E	A	D	F	A	A	D	A	E
Approach Vol, veh/h		296			695			407			243	
Approach Delay, s/veh		25.1			43.5			79.9			66.5	
Approach LOS		C			D			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	61.1		19.5	11.5	57.0		32.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.9	50.5		18.1	7.1	49.3		27.5				
Max Q Clear Time (g_c+I1), s	3.7	3.0		14.7	7.4	42.8		29.5				
Green Ext Time (p_c), s	0.0	1.3		0.4	0.0	2.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
 4: Beckwith Av. & Singleton Rd.

OY (2025) Without Project AM Peak Hour  
 WITH IMPROVEMENTS



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	381	12	3	625	21	2
Future Volume (vph)	381	12	3	625	21	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	30			30	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	9.3			38.7	7.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	381	12	3	625	21	2
Future Vol, veh/h	381	12	3	625	21	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	389	12	3	638	21	2























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	401	0	1039 395
Stage 1	-	-	-	-	395 -
Stage 2	-	-	-	-	644 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1158	-	255 654
Stage 1	-	-	-	-	681 -
Stage 2	-	-	-	-	523 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1158	-	254 654
Mov Cap-2 Maneuver	-	-	-	-	254 -
Stage 1	-	-	-	-	681 -
Stage 2	-	-	-	-	521 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	268	-	-	1158	-
HCM Lane V/C Ratio	0.088	-	-	0.003	-
HCM Control Delay (s)	19.7	-	-	8.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Lanes, Volumes, Timings  
 5: Singleton Cyn. Rd. & Singleton Rd.

OY (2025) Without Project AM Peak Hour  
 WITH IMPROVEMENTS

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	34	344	4	1	492	13	7	1	1	21	1	108
Future Volume (vph)	34	344	4	1	492	13	7	1	1	21	1	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		17.5			16.6			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕		↕↗	↕
Traffic Vol, veh/h	34	344	4	1	492	13	7	1	1	21	1	108
Future Vol, veh/h	34	344	4	1	492	13	7	1	1	21	1	108
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	362	4	1	518	14	7	1	1	22	1	114
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	12.3	14.8	10.7	10.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	88%	0%	100%	0%	0%	100%	0%	0%	95%	0%
Vol Thru, %	12%	0%	0%	100%	97%	0%	100%	93%	5%	0%
Vol Right, %	0%	100%	0%	0%	3%	0%	0%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	1	34	229	119	1	328	177	22	108
LT Vol	7	0	34	0	0	1	0	0	21	0
Through Vol	1	0	0	229	115	0	328	164	1	0
RT Vol	0	1	0	0	4	0	0	13	0	108
Lane Flow Rate	8	1	36	241	125	1	345	186	23	114
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.019	0.002	0.067	0.419	0.216	0.002	0.577	0.309	0.049	0.202
Departure Headway (Hd)	7.909	6.765	6.758	6.254	6.23	6.523	6.02	5.968	7.571	6.391
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	451	527	529	575	575	548	597	602	472	560
Service Time	5.681	4.536	4.506	4.002	3.979	4.266	3.763	3.711	5.327	4.147
HCM Lane V/C Ratio	0.018	0.002	0.068	0.419	0.217	0.002	0.578	0.309	0.049	0.204
HCM Control Delay	10.8	9.5	10	13.5	10.7	9.3	16.7	11.4	10.7	10.8
HCM Lane LOS	B	A	A	B	B	A	C	B	B	B
HCM 95th-tile Q	0.1	0	0.2	2.1	0.8	0	3.7	1.3	0.2	0.7

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

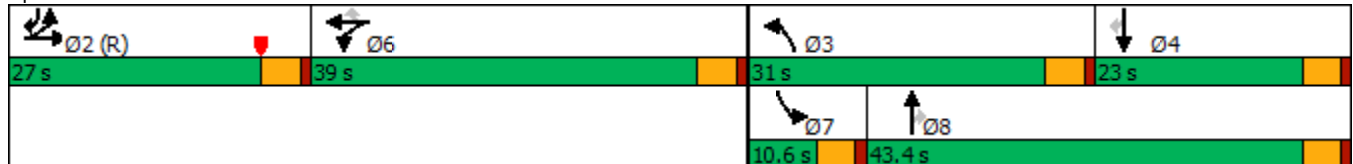
OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	181	42	17	318	20	223	458	162	23	142	308
Future Volume (vph)	131	181	42	17	318	20	223	458	162	23	142	308
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			14.4			5.7			14.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)	11%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		39.0	39.0	39.0	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.0	27.0		39.0	39.0	39.0	31.0	43.4	43.4	10.6	23.0	27.0
Total Split (%)	22.5%	22.5%		32.5%	32.5%	32.5%	25.8%	36.2%	36.2%	8.8%	19.2%	22.5%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated
























Splits and Phases: 6: Calimesa Bl. & 5th St.





HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	181	42	17	318	20	223	458	162	23	142	308
Future Volume (veh/h)	131	181	42	17	318	20	223	458	162	23	142	308
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	234	49	20	374	24	262	539	191	27	167	362
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	493	834	171	399	419	355	293	1152	514	44	345	731
Arrive On Green	0.28	0.28	0.28	0.22	0.22	0.22	0.16	0.32	0.32	0.02	0.18	0.18
Sat Flow, veh/h	1781	3011	619	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	139	144	139	20	374	24	262	539	191	27	167	362
Grp Sat Flow(s),veh/h/ln	1781	1870	1759	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.5	11.1	1.8	9.6	19.1
Cycle Q Clear(g_c), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.5	11.1	1.8	9.6	19.1
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	493	518	487	399	419	355	293	1152	514	44	345	731
V/C Ratio(X)	0.28	0.28	0.29	0.05	0.89	0.07	0.89	0.47	0.37	0.61	0.48	0.49
Avail Cap(c_a), veh/h	493	518	487	512	538	456	393	1152	514	91	345	731
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	34.0	34.0	34.1	36.5	45.1	36.7	49.1	32.3	31.2	57.9	43.8	22.6
Incr Delay (d2), s/veh	1.4	1.3	1.5	0.1	14.3	0.1	18.0	1.4	2.1	13.0	4.8	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.5	3.4	0.5	12.4	0.6	9.1	6.4	4.5	1.0	4.9	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	35.3	35.5	36.6	59.5	36.8	67.1	33.7	33.2	71.0	48.6	24.9
LnGrp LOS	D	D	D	D	E	D	E	C	C	E	D	C
Approach Vol, veh/h		422			418			992			556	
Approach Delay, s/veh		35.4			57.1			42.4			34.3	
Approach LOS		D			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		37.7	24.2	26.6		31.4	7.5	43.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.5	26.5	18.5		34.5	6.1	38.9				
Max Q Clear Time (g_c+I1), s		9.5	19.3	21.1		25.3	3.8	16.5				
Green Ext Time (p_c), s		1.7	0.4	0.0		1.6	0.0	4.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			41.9									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

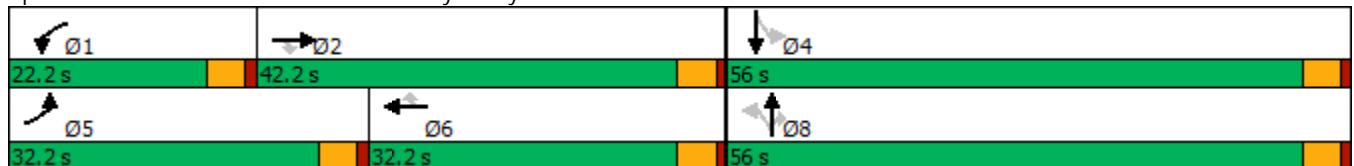
OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	414	21	127	368	338	12	23	121	468	21	221
Future Volume (vph)	306	414	21	127	368	338	12	23	121	468	21	221
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		50	100		100	150		0
Storage Lanes	1		1	1		1	0		0	1		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4		4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	32.0	32.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	32.2	42.2	42.2	22.2	32.2	32.2	56.0	56.0	56.0	56.0	56.0	56.0
Total Split (%)	26.7%	35.0%	35.0%	18.4%	26.7%	26.7%	46.5%	46.5%	46.5%	46.5%	46.5%	46.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max

Intersection Summary

























Area Type: Other  
 Cycle Length: 120.4  
 Actuated Cycle Length: 110.3  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	414	21	127	368	338	12	23	121	468	21	221
Future Volume (veh/h)	306	414	21	127	368	338	12	23	121	468	21	221
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	336	455	23	140	404	371	13	25	133	514	23	243
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	366	1237	552	169	844	376	430	826	700	595	61	648
Arrive On Green	0.21	0.35	0.35	0.09	0.24	0.24	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1113	1870	1585	1228	139	1467
Grp Volume(v), veh/h	336	455	23	140	404	371	13	25	133	514	0	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1113	1870	1585	1228	0	1606
Q Serve(g_s), s	21.6	11.2	1.1	9.0	11.4	27.2	0.9	0.9	6.0	47.5	0.0	12.9
Cycle Q Clear(g_c), s	21.6	11.2	1.1	9.0	11.4	27.2	13.9	0.9	6.0	48.4	0.0	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Lane Grp Cap(c), veh/h	366	1237	552	169	844	376	430	826	700	595	0	709
V/C Ratio(X)	0.92	0.37	0.04	0.83	0.48	0.99	0.03	0.03	0.19	0.86	0.00	0.38
Avail Cap(c_a), veh/h	423	1237	552	270	844	376	430	826	700	595	0	709
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	45.4	28.4	25.2	51.9	38.3	44.3	26.5	18.4	19.9	32.1	0.0	21.8
Incr Delay (d2), s/veh	23.0	0.2	0.0	11.0	0.4	42.5	0.1	0.1	0.6	15.4	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	11.7	4.7	0.4	4.5	5.0	14.9	0.3	0.4	2.3	16.2	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.4	28.6	25.2	62.9	38.7	86.8	26.6	18.5	20.5	47.5	0.0	23.3
LnGrp LOS	E	C	C	E	D	F	C	B	C	D	A	C
Approach Vol, veh/h		814			915			171			780	
Approach Delay, s/veh		44.9			61.9			20.6			39.3	
Approach LOS		D			E			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.6	45.1		56.0	28.5	32.2		56.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	17.7	37.7		51.5	27.7	27.7		51.5				
Max Q Clear Time (g_c+I1), s	11.0	13.2		50.4	23.6	29.2		15.9				
Green Ext Time (p_c), s	0.2	3.1		0.5	0.4	0.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	47.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

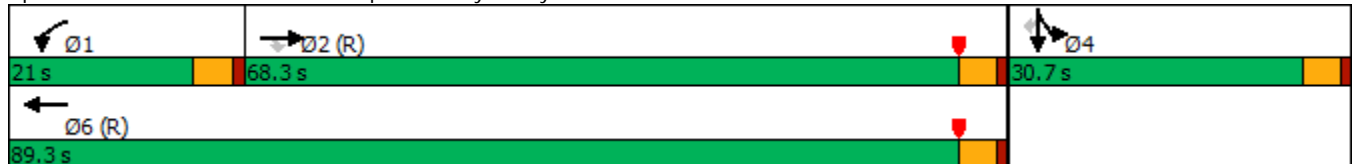
OY (2025) Without Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	806	197	171	417	0	0	0	0	291	0	415
Future Volume (vph)	0	806	197	171	417	0	0	0	0	291	0	415
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	145		0	0		0	0		345
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			90			90			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		450			641			982			791	
Travel Time (s)		8.8			12.5			22.3			18.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
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)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					21.8	21.8	21.8
Total Split (s)		68.3	68.3	21.0	89.3					30.7	30.7	30.7
Total Split (%)		56.9%	56.9%	17.5%	74.4%					25.6%	25.6%	25.6%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Min	C-Min	None	C-Min					Max	Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) Without Project AM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↖	↗
Traffic Volume (veh/h)	0	806	197	171	417	0	0	0	0	291	0	415
Future Volume (veh/h)	0	806	197	171	417	0	0	0	0	291	0	415
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	867	104	184	448	0				313	0	231
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1033	875	209	1322	0				389	0	346
Arrive On Green	0.00	0.55	0.55	0.23	1.00	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	867	104	184	448	0				313	0	231
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	46.4	3.8	12.0	0.0	0.0				20.0	0.0	16.0
Cycle Q Clear(g_c), s	0.0	46.4	3.8	12.0	0.0	0.0				20.0	0.0	16.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1033	875	209	1322	0				389	0	346
V/C Ratio(X)	0.00	0.84	0.12	0.88	0.34	0.00				0.80	0.00	0.67
Avail Cap(c_a), veh/h	0	1033	875	245	1322	0				389	0	346
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	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	22.4	12.9	45.2	0.0	0.0				44.5	0.0	42.9
Incr Delay (d2), s/veh	0.0	8.2	0.3	18.9	0.5	0.0				16.1	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	21.5	1.4	5.7	0.2	0.0				10.5	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.6	13.2	64.0	0.5	0.0				60.6	0.0	52.7
LnGrp LOS	A	C	B	E	A	A				E	A	D
Approach Vol, veh/h		971			632						544	
Approach Delay, s/veh		28.8			19.0						57.3	
Approach LOS		C			B						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.6	70.7		30.7		89.3						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	16.5	63.8		26.2		84.8						
Max Q Clear Time (g_c+I1), s	14.0	48.4		22.0		2.0						
Green Ext Time (p_c), s	0.1	6.0		1.1		3.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.1								
HCM 6th LOS				C								

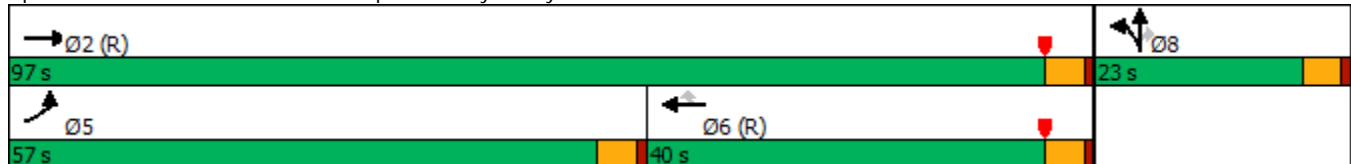
Lanes, Volumes, Timings  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) Without Project AM Peak Hour  
 WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	626	469	0	0	404	549	185	11	281	0	0	0
Future Volume (vph)	626	469	0	0	404	549	185	11	281	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	285		0	0		0	0		130	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	90			90			120			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		641			240			619			885	
Travel Time (s)		12.5			4.7			14.1			20.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
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	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	22.5	22.5			22.5	22.5	21.8	21.8	21.8			
Total Split (s)	57.0	97.0			40.0	40.0	23.0	23.0	23.0			
Total Split (%)	47.5%	80.8%			33.3%	33.3%	19.2%	19.2%	19.2%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			



















**Intersection Summary**  
 Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) Without Project AM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	626	469	0	0	404	549	185	11	281	0	0	0
Future Volume (veh/h)	626	469	0	0	404	549	185	11	281	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	673	504	0	0	434	321	199	12	141			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	692	1476	0	0	678	575	229	14	216			
Arrive On Green	0.65	1.00	0.00	0.00	0.48	0.48	0.14	0.14	0.14			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1685	102	1585			
Grp Volume(v), veh/h	673	504	0	0	434	321	211	0	141			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1786	0	1585			
Q Serve(g_s), s	43.1	0.0	0.0	0.0	20.8	17.2	13.9	0.0	10.1			
Cycle Q Clear(g_c), s	43.1	0.0	0.0	0.0	20.8	17.2	13.9	0.0	10.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	692	1476	0	0	678	575	243	0	216			
V/C Ratio(X)	0.97	0.34	0.00	0.00	0.64	0.56	0.87	0.00	0.65			
Avail Cap(c_a), veh/h	779	1476	0	0	678	575	275	0	244			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.30	0.30	0.00	0.00	0.58	0.58	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.4	0.0	0.0	0.0	25.2	24.3	50.8	0.0	49.2			
Incr Delay (d2), s/veh	11.2	0.2	0.0	0.0	2.7	2.3	22.4	0.0	5.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.0	0.1	0.0	0.0	8.7	6.1	7.7	0.0	4.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.2	0.0	0.0	27.9	26.5	73.2	0.0	54.3			
LnGrp LOS	C	A	A	A	C	C	E	A	D			
Approach Vol, veh/h		1177			755			352				
Approach Delay, s/veh		18.2			27.3			65.6				
Approach LOS		B			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		99.2			51.2	48.0		20.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		92.5			52.5	35.5		18.5				
Max Q Clear Time (g_c+I1), s		2.0			45.1	22.8		15.9				
Green Ext Time (p_c), s		3.5			1.6	3.1		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					28.5							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) Without Project AM Peak Hour  
 WITH IMPROVEMENTS

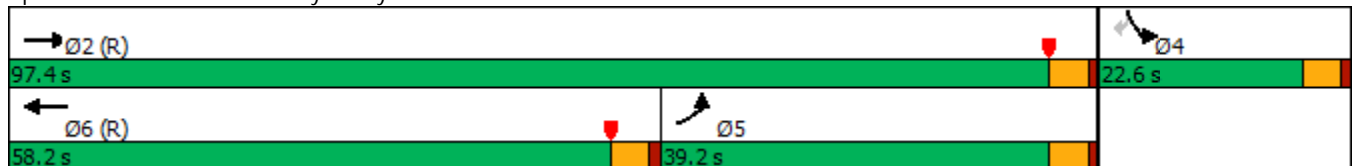


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↕		↖	↗
Traffic Volume (vph)	282	468	911	132	36	41
Future Volume (vph)	282	468	911	132	36	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	150
Storage Lanes	0			0	1	1
Taper Length (ft)	60				90	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	9.5	22.5	22.5		22.5	22.5
Total Split (s)	39.2	97.4	58.2		22.6	22.6
Total Split (%)	32.7%	81.2%	48.5%		18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
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)	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.





HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) Without Project AM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	282	468	911	132	36	41
Future Volume (veh/h)	282	468	911	132	36	41
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	328	544	1059	153	42	48
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	515	1448	1395	201	269	239
Arrive On Green	0.58	1.00	0.45	0.45	0.15	0.15
Sat Flow, veh/h	1781	1870	3210	450	1781	1585
Grp Volume(v), veh/h	328	544	603	609	42	48
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1789	1781	1585
Q Serve(g_s), s	14.7	0.0	34.1	34.2	2.5	3.2
Cycle Q Clear(g_c), s	14.7	0.0	34.1	34.2	2.5	3.2
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	515	1448	795	801	269	239
V/C Ratio(X)	0.64	0.38	0.76	0.76	0.16	0.20
Avail Cap(c_a), veh/h	515	1448	795	801	269	239
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	27.7	27.8	44.3	44.6
Incr Delay (d2), s/veh	2.3	0.7	6.7	6.7	1.2	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	4.8	0.3	15.5	15.6	1.2	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	0.7	34.4	34.5	45.5	46.5
LnGrp LOS	C	A	C	C	D	D
Approach Vol, veh/h		872	1212		90	
Approach Delay, s/veh		9.2	34.5		46.1	
Approach LOS		A	C		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	39.2	58.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	34.7	53.7
Max Q Clear Time (g_c+I1), s		2.0		5.2	16.7	36.2
Green Ext Time (p_c), s		3.9		0.2	0.9	7.7
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			24.8			
HCM 6th LOS			C			

Lanes, Volumes, Timings  
1: Singleton Rd. & I-10 EB Ramps

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	295	141	202	109	0	0	0	0	66	0	122
Future Volume (vph)	0	295	141	202	109	0	0	0	0	66	0	122
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	70		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			60			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1255			647			1041			468	
Travel Time (s)		28.5			14.7			23.7			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		52.0	52.0	40.0	92.0					28.0	28.0	28.0
Total Split (%)		43.3%	43.3%	33.3%	76.7%					23.3%	23.3%	23.3%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	295	141	202	109	0	0	0	0	66	0	122
Future Volume (veh/h)	0	295	141	202	109	0	0	0	0	66	0	122
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	324	155	222	120	0				73	0	134
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1029	872	252	1364	0				349	0	310
Arrive On Green	0.00	0.55	0.55	0.24	1.00	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	324	155	222	120	0				73	0	134
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	11.3	5.9	14.4	0.0	0.0				4.1	0.0	8.9
Cycle Q Clear(g_c), s	0.0	11.3	5.9	14.4	0.0	0.0				4.1	0.0	8.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1029	872	252	1364	0				349	0	310
V/C Ratio(X)	0.00	0.31	0.18	0.88	0.09	0.00				0.21	0.00	0.43
Avail Cap(c_a), veh/h	0	1029	872	527	1364	0				349	0	310
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.98	0.98	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.7	13.5	44.8	0.0	0.0				40.5	0.0	42.4
Incr Delay (d2), s/veh	0.0	0.8	0.4	9.4	0.1	0.0				1.4	0.0	4.3
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	5.0	2.2	6.4	0.0	0.0				2.0	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.5	13.9	54.3	0.1	0.0				41.8	0.0	46.7
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		479			342						207	
Approach Delay, s/veh		14.9			35.3						45.0	
Approach LOS		B			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.5	70.5		28.0		92.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	35.5	47.5		23.5		87.5						
Max Q Clear Time (g_c+I1), s	16.4	13.3		10.9		2.0						
Green Ext Time (p_c), s	0.6	2.6		0.6		0.7						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.8								
HCM 6th LOS				C								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Lanes, Volumes, Timings  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	121	0	0	249	200	63	0	294	0	0	0
Future Volume (vph)	240	121	0	0	249	200	63	0	294	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70		0	0		200	200		50	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	60			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		647			547			1033			503	
Travel Time (s)		14.7			12.4			23.5			11.4	
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5	22.5			
Total Split (s)	41.0	83.0			42.0	42.0	37.0	37.0	37.0			
Total Split (%)	34.2%	69.2%			35.0%	35.0%	30.8%	30.8%	30.8%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	121	0	0	249	200	63	0	294	0	0	0
Future Volume (veh/h)	240	121	0	0	249	200	63	0	294	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	261	132	0	0	271	217	68	0	320			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	295	1317	0	0	937	794	394	0	350			
Arrive On Green	0.17	0.70	0.00	0.00	1.00	1.00	0.22	0.00	0.22			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	261	132	0	0	271	217	68	0	320			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	17.2	2.7	0.0	0.0	0.0	0.0	3.7	0.0	23.6			
Cycle Q Clear(g_c), s	17.2	2.7	0.0	0.0	0.0	0.0	3.7	0.0	23.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	295	1317	0	0	937	794	394	0	350			
V/C Ratio(X)	0.88	0.10	0.00	0.00	0.29	0.27	0.17	0.00	0.91			
Avail Cap(c_a), veh/h	542	1317	0	0	937	794	482	0	429			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	0.92	0.92	1.00	0.00	1.00			
Uniform Delay (d), s/veh	48.9	5.7	0.0	0.0	0.0	0.0	37.9	0.0	45.6			
Incr Delay (d2), s/veh	8.3	0.1	0.0	0.0	0.7	0.8	0.2	0.0	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			
%ile BackOfQ(50%),veh/ln	8.3	1.0	0.0	0.0	0.2	0.2	1.7	0.0	11.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	5.8	0.0	0.0	0.7	0.8	38.1	0.0	66.7			
LnGrp LOS	E	A	A	A	A	A	D	A	E			
Approach Vol, veh/h		393			488			388				
Approach Delay, s/veh		40.0			0.7			61.7				
Approach LOS		D			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		89.0			24.4	64.6		31.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		78.5			36.5	37.5		32.5				
Max Q Clear Time (g_c+I1), s		4.7			19.2	2.0		25.6				
Green Ext Time (p_c), s		0.8			0.7	2.5		0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					31.5							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

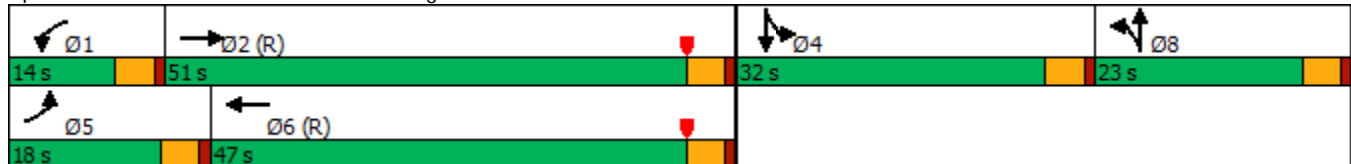
OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	319	6	49	305	72	6	47	17	159	105	137
Future Volume (vph)	91	319	6	49	305	72	6	47	17	159	105	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		547			300			710			1412	
Travel Time (s)		12.4			6.8			16.1			32.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	18.0	51.0		14.0	47.0		23.0	23.0		32.0	32.0	
Total Split (%)	15.0%	42.5%		11.7%	39.2%		19.2%	19.2%		26.7%	26.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary





















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	319	6	49	305	72	6	47	17	159	105	137
Future Volume (veh/h)	91	319	6	49	305	72	6	47	17	159	105	137
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	94	329	6	51	314	74	6	48	18	164	108	141
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	1038	19	66	788	186	11	90	34	303	125	164
Arrive On Green	0.11	0.95	0.95	0.04	0.54	0.54	0.08	0.08	0.08	0.17	0.17	0.17
Sat Flow, veh/h	1781	1831	33	1781	1463	345	149	1188	446	1781	736	961
Grp Volume(v), veh/h	94	0	335	51	0	388	72	0	0	164	0	249
Grp Sat Flow(s),veh/h/ln	1781	0	1864	1781	0	1808	1783	0	0	1781	0	1697
Q Serve(g_s), s	6.2	0.0	1.6	3.4	0.0	15.1	4.7	0.0	0.0	10.1	0.0	17.1
Cycle Q Clear(g_c), s	6.2	0.0	1.6	3.4	0.0	15.1	4.7	0.0	0.0	10.1	0.0	17.1
Prop In Lane	1.00		0.02	1.00		0.19	0.08		0.25	1.00		0.57
Lane Grp Cap(c), veh/h	117	0	1057	66	0	973	135	0	0	303	0	289
V/C Ratio(X)	0.80	0.00	0.32	0.77	0.00	0.40	0.53	0.00	0.00	0.54	0.00	0.86
Avail Cap(c_a), veh/h	200	0	1057	141	0	973	275	0	0	408	0	389
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.00	0.83	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.6	0.0	1.4	57.3	0.0	16.3	53.4	0.0	0.0	45.5	0.0	48.4
Incr Delay (d2), s/veh	10.0	0.0	0.7	17.3	0.0	1.2	3.2	0.0	0.0	1.5	0.0	13.9
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	3.0	0.0	0.7	1.9	0.0	6.5	2.2	0.0	0.0	4.6	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	0.0	2.1	74.6	0.0	17.5	56.6	0.0	0.0	47.0	0.0	62.3
LnGrp LOS	E	A	A	E	A	B	E	A	A	D	A	E
Approach Vol, veh/h		429			439			72			413	
Approach Delay, s/veh		15.3			24.1			56.6			56.2	
Approach LOS		B			C			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	72.5		24.9	12.4	69.1		13.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	46.5		27.5	13.5	42.5		18.5				
Max Q Clear Time (g_c+I1), s	5.4	3.6		19.1	8.2	17.1		6.7				
Green Ext Time (p_c), s	0.0	2.2		1.3	0.1	2.5		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				32.9								
HCM 6th LOS				C								

Lanes, Volumes, Timings  
 4: Beckwith Av. & Singleton Rd.

OY (2025) Without Project PM Peak Hour  
 WITH IMPROVEMENTS



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	466	29	5	409	17	4
Future Volume (vph)	466	29	5	409	17	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	30			30	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	9.3			38.7	7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

**Intersection Summary**  
 Area Type: Other  
 Control Type: Unsignalized



Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	466	29	5	409	17	4
Future Vol, veh/h	466	29	5	409	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	491	31	5	431	18	4























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	522	0	948 507
Stage 1	-	-	-	-	507 -
Stage 2	-	-	-	-	441 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1044	-	289 566
Stage 1	-	-	-	-	605 -
Stage 2	-	-	-	-	648 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1044	-	288 566
Mov Cap-2 Maneuver	-	-	-	-	288 -
Stage 1	-	-	-	-	605 -
Stage 2	-	-	-	-	645 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	318	-	-	1044	-
HCM Lane V/C Ratio	0.07	-	-	0.005	-
HCM Control Delay (s)	17.2	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings  
 5: Singleton Cyn. Rd. & Singleton Rd.

OY (2025) Without Project PM Peak Hour  
 WITH IMPROVEMENTS

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	89	382	1	1	352	14	1	1	2	17	1	42
Future Volume (vph)	89	382	1	1	352	14	1	1	2	17	1	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		17.5			16.6			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔	↕		↕↔	↕
Traffic Vol, veh/h	89	382	1	1	352	14	1	1	2	17	1	42
Future Vol, veh/h	89	382	1	1	352	14	1	1	2	17	1	42
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	93	398	1	1	367	15	1	1	2	18	1	44
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	11.1	11.3	9.5	9.6
HCM LOS	B	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	50%	0%	100%	0%	0%	100%	0%	0%	94%	0%
Vol Thru, %	50%	0%	0%	100%	99%	0%	100%	89%	6%	0%
Vol Right, %	0%	100%	0%	0%	1%	0%	0%	11%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	2	89	255	128	1	235	131	18	42
LT Vol	1	0	89	0	0	1	0	0	17	0
Through Vol	1	0	0	255	127	0	235	117	1	0
RT Vol	0	2	0	0	1	0	0	14	0	42
Lane Flow Rate	2	2	93	265	134	1	244	137	19	44
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.004	0.004	0.155	0.408	0.205	0.002	0.388	0.214	0.038	0.074
Departure Headway (Hd)	7.232	6.279	6.036	5.535	5.529	6.216	5.715	5.64	7.284	6.111
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	498	573	589	645	642	570	623	629	494	590
Service Time	4.935	3.983	3.83	3.328	3.323	4.014	3.512	3.438	4.984	3.811
HCM Lane V/C Ratio	0.004	0.003	0.158	0.411	0.209	0.002	0.392	0.218	0.038	0.075
HCM Control Delay	10	9	10	12.2	9.8	9	12.1	10	10.3	9.3
HCM Lane LOS	A	A	A	B	A	A	B	A	B	A
HCM 95th-tile Q	0	0	0.5	2	0.8	0	1.8	0.8	0.1	0.2

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

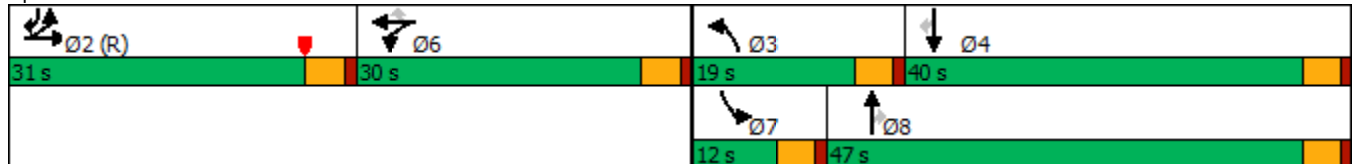
OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	90	86	40	189	28	82	351	171	32	291	339
Future Volume (vph)	94	90	86	40	189	28	82	351	171	32	291	339
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			14.4			5.7			14.6	
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
Shared Lane Traffic (%)	10%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	31.0	31.0		30.0	30.0	30.0	19.0	47.0	47.0	12.0	40.0	31.0
Total Split (%)	25.8%	25.8%		25.0%	25.0%	25.0%	15.8%	39.2%	39.2%	10.0%	33.3%	25.8%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max

Intersection Summary
























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	90	86	40	189	28	82	351	171	32	291	339
Future Volume (veh/h)	94	90	86	40	189	28	82	351	171	32	291	339
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	96	102	91	43	201	30	87	373	182	34	310	361
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	602	647	523	231	242	205	110	1259	561	50	599	1044
Arrive On Green	0.34	0.34	0.34	0.13	0.13	0.13	0.06	0.35	0.35	0.03	0.32	0.32
Sat Flow, veh/h	1781	1914	1548	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	96	99	94	43	201	30	87	373	182	34	310	361
Grp Sat Flow(s),veh/h/ln	1781	1870	1592	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.5	4.5	5.0	2.6	12.6	2.0	5.8	9.1	10.1	2.3	16.2	12.1
Cycle Q Clear(g_c), s	4.5	4.5	5.0	2.6	12.6	2.0	5.8	9.1	10.1	2.3	16.2	12.1
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	602	632	538	231	242	205	110	1259	561	50	599	1044
V/C Ratio(X)	0.16	0.16	0.17	0.19	0.83	0.15	0.79	0.30	0.32	0.68	0.52	0.35
Avail Cap(c_a), veh/h	602	632	538	379	397	337	215	1259	561	111	599	1044
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	27.8	27.9	46.6	50.9	46.3	55.5	28.0	28.3	57.8	33.2	9.1
Incr Delay (d2), s/veh	0.6	0.5	0.7	0.4	7.4	0.3	11.7	0.6	1.5	14.6	3.2	0.9
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	2.0	2.1	2.0	1.2	6.4	0.8	2.9	3.9	4.0	1.2	7.8	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	28.3	28.6	47.0	58.4	46.7	67.2	28.6	29.8	72.4	36.4	10.0
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	A
Approach Vol, veh/h		289			274			642			705	
Approach Delay, s/veh		28.4			55.3			34.2			24.6	
Approach LOS		C			E			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		45.1	11.9	43.0		20.0	7.9	47.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	14.5	35.5		25.5	7.5	42.5				
Max Q Clear Time (g_c+I1), s		7.0	7.8	18.2		14.6	4.3	12.1				
Green Ext Time (p_c), s		1.3	0.1	2.9		1.0	0.0	3.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			32.8									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	504	24	258	569	346	24	8	139	266	12	237
Future Volume (vph)	161	504	24	258	569	346	24	8	139	266	12	237
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		50	100		100	150		0
Storage Lanes	1		1	1		1	0		0	1		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	27.0	38.0	38.0	37.0	48.0	48.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	22.5%	31.7%	31.7%	30.8%	40.0%	40.0%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max

Intersection Summary

























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 94.8  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	504	24	258	569	346	24	8	139	266	12	237
Future Volume (veh/h)	161	504	24	258	569	346	24	8	139	266	12	237
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	169	531	25	272	599	364	25	8	146	280	13	249
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	208	821	366	316	1039	463	452	829	703	623	35	673
Arrive On Green	0.12	0.23	0.23	0.18	0.29	0.29	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1117	1870	1585	1233	79	1518
Grp Volume(v), veh/h	169	531	25	272	599	364	25	8	146	280	0	262
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1117	1870	1585	1233	0	1597
Q Serve(g_s), s	8.5	12.3	1.1	13.5	13.1	19.3	1.4	0.2	5.2	15.0	0.0	10.0
Cycle Q Clear(g_c), s	8.5	12.3	1.1	13.5	13.1	19.3	11.4	0.2	5.2	15.2	0.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	208	821	366	316	1039	463	452	829	703	623	0	708
V/C Ratio(X)	0.81	0.65	0.07	0.86	0.58	0.79	0.06	0.01	0.21	0.45	0.00	0.37
Avail Cap(c_a), veh/h	439	1303	581	634	1693	755	452	829	703	623	0	708
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	31.7	27.4	36.4	27.5	29.7	20.7	14.2	15.6	18.5	0.0	16.9
Incr Delay (d2), s/veh	7.5	0.9	0.1	6.8	0.5	3.0	0.2	0.0	0.7	2.3	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	4.0	5.2	0.4	6.3	5.4	7.4	0.4	0.1	1.9	4.5	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	32.6	27.5	43.2	28.0	32.7	20.9	14.2	16.2	20.8	0.0	18.4
LnGrp LOS	D	C	C	D	C	C	C	B	B	C	A	B
Approach Vol, veh/h		725			1235			179			542	
Approach Delay, s/veh		35.8			32.7			16.8			19.6	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.7	25.6		45.0	15.1	31.2		45.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	32.5	33.5		40.5	22.5	43.5		40.5				
Max Q Clear Time (g_c+I1), s	15.5	14.3		17.2	10.5	21.3		13.4				
Green Ext Time (p_c), s	0.7	3.4		2.8	0.3	5.4		0.6				

Intersection Summary

HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) Without Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	690	219	191	444	0	0	0	0	476	0	728
Future Volume (vph)	0	690	219	191	444	0	0	0	0	476	0	728
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	145		0	0		0	0		345
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			90			90			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		450			641			982				791
Travel Time (s)		8.8			12.5			22.3				18.0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Shared Lane Traffic (%)												
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)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		56.0	56.0	20.0	76.0					44.0	44.0	44.0
Total Split (%)		46.7%	46.7%	16.7%	63.3%					36.7%	36.7%	36.7%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Min	C-Min	None	C-Min					Max	Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated



















Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) Without Project PM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	690	219	191	444	0	0	0	0	476	0	728
Future Volume (veh/h)	0	690	219	191	444	0	0	0	0	476	0	728
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	697	120	193	448	0				481	0	381
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	817	692	217	1114	0				586	0	522
Arrive On Green	0.00	0.44	0.44	0.24	1.00	0.00				0.33	0.00	0.33
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	697	120	193	448	0				481	0	381
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	40.1	5.5	12.6	0.0	0.0				29.8	0.0	25.5
Cycle Q Clear(g_c), s	0.0	40.1	5.5	12.6	0.0	0.0				29.8	0.0	25.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	817	692	217	1114	0				586	0	522
V/C Ratio(X)	0.00	0.85	0.17	0.89	0.40	0.00				0.82	0.00	0.73
Avail Cap(c_a), veh/h	0	817	692	230	1114	0				586	0	522
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	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	30.3	20.6	44.6	0.0	0.0				37.0	0.0	35.5
Incr Delay (d2), s/veh	0.0	11.0	0.5	26.4	0.9	0.0				12.2	0.0	8.7
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	19.9	2.1	6.4	0.3	0.0				14.8	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.3	21.1	71.1	0.9	0.0				49.2	0.0	44.3
LnGrp LOS	A	D	C	E	A	A				D	A	D
Approach Vol, veh/h		817			641						862	
Approach Delay, s/veh		38.4			22.0						47.0	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.1	56.9		44.0		76.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	15.5	51.5		39.5		71.5						
Max Q Clear Time (g_c+I1), s	14.6	42.1		31.8		2.0						
Green Ext Time (p_c), s	0.0	3.5		2.9		3.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				37.1								
HCM 6th LOS				D								

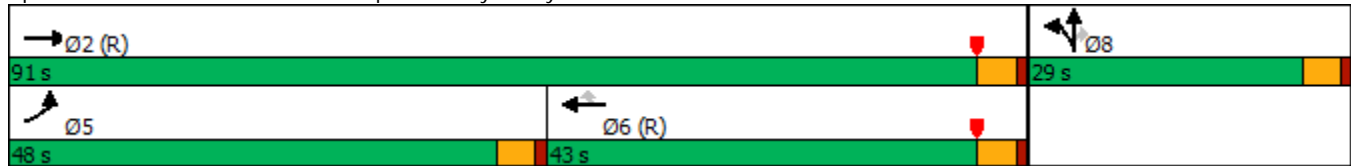
Lanes, Volumes, Timings  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) Without Project PM Peak Hour  
 WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	454	712	0	0	404	417	229	8	231	0	0	0
Future Volume (vph)	454	712	0	0	404	417	229	8	231	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	285		0	0		0	0		130	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	90			90			120			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		641			240			619			885	
Travel Time (s)		12.5			4.7			14.1			20.1	
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
Shared Lane Traffic (%)												
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	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5	22.5			
Total Split (s)	48.0	91.0			43.0	43.0	29.0	29.0	29.0			
Total Split (%)	40.0%	75.8%			35.8%	35.8%	24.2%	24.2%	24.2%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			



















**Intersection Summary**  
 Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) Without Project PM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	454	712	0	0	404	417	229	8	231	0	0	0
Future Volume (veh/h)	454	712	0	0	404	417	229	8	231	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	478	749	0	0	425	228	241	8	138			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	500	1429	0	0	833	706	278	9	256			
Arrive On Green	0.56	1.00	0.00	0.00	0.15	0.15	0.16	0.16	0.16			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1727	57	1585			
Grp Volume(v), veh/h	478	749	0	0	425	228	249	0	138			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1784	0	1585			
Q Serve(g_s), s	30.5	0.0	0.0	0.0	25.1	15.5	16.3	0.0	9.6			
Cycle Q Clear(g_c), s	30.5	0.0	0.0	0.0	25.1	15.5	16.3	0.0	9.6			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	500	1429	0	0	833	706	288	0	256			
V/C Ratio(X)	0.96	0.52	0.00	0.00	0.51	0.32	0.87	0.00	0.54			
Avail Cap(c_a), veh/h	646	1429	0	0	833	706	364	0	324			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.28	0.28	0.00	0.00	0.95	0.95	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.6	0.0	0.0	0.0	39.1	35.0	49.1	0.0	46.2			
Incr Delay (d2), s/veh	8.9	0.4	0.0	0.0	2.1	1.2	16.1	0.0	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			
%ile BackOfQ(50%),veh/ln	9.9	0.2	0.0	0.0	13.1	6.8	8.5	0.0	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	0.4	0.0	0.0	41.2	36.1	65.1	0.0	48.0			
LnGrp LOS	C	A	A	A	D	D	E	A	D			
Approach Vol, veh/h		1227			653			387				
Approach Delay, s/veh		13.7			39.4			59.0				
Approach LOS		B			D			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		96.2			38.2	58.0		23.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		86.5			43.5	38.5		24.5				
Max Q Clear Time (g_c+I1), s		2.0			32.5	27.1		18.3				
Green Ext Time (p_c), s		6.3			1.2	2.6		1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					28.8							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) Without Project PM Peak Hour  
 WITH IMPROVEMENTS



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↕		↗	↗
Traffic Volume (vph)	61	882	726	35	86	95
Future Volume (vph)	61	882	726	35	86	95
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	150
Storage Lanes	0			0	1	1
Taper Length (ft)	60				90	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	9.5	22.5	22.5		22.5	22.5
Total Split (s)	16.0	96.0	80.0		24.0	24.0
Total Split (%)	13.3%	80.0%	66.7%		20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
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)	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) Without Project PM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	61	882	726	35	86	95
Future Volume (veh/h)	61	882	726	35	86	95
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	66	959	789	38	93	103
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	84	1426	2339	113	289	258
Arrive On Green	0.09	1.00	0.68	0.68	0.16	0.16
Sat Flow, veh/h	1781	1870	3545	166	1781	1585
Grp Volume(v), veh/h	66	959	406	421	93	103
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1840	1781	1585
Q Serve(g_s), s	4.3	0.0	11.5	11.5	5.5	7.0
Cycle Q Clear(g_c), s	4.3	0.0	11.5	11.5	5.5	7.0
Prop In Lane	1.00			0.09	1.00	1.00
Lane Grp Cap(c), veh/h	84	1426	1204	1247	289	258
V/C Ratio(X)	0.78	0.67	0.34	0.34	0.32	0.40
Avail Cap(c_a), veh/h	171	1426	1204	1247	289	258
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	0.0	8.1	8.1	44.4	45.0
Incr Delay (d2), s/veh	12.4	2.1	0.8	0.7	2.9	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.8	4.3	4.4	2.7	6.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	66.1	2.1	8.8	8.8	47.3	49.6
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1025	827		196	
Approach Delay, s/veh		6.3	8.8		48.5	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.0		24.0	10.2	85.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		91.5		19.5	11.5	75.5
Max Q Clear Time (g_c+I1), s		2.0		9.0	6.3	13.5
Green Ext Time (p_c), s		10.2		0.4	0.0	6.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.3			
HCM 6th LOS			B			

**APPENDIX 5.6: OPENING YEAR CUMULATIVE (2025) WITH PROJECT PA  
1, HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT CONDITIONS WITH  
IMPROVEMENTS INTERSECTION ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Lanes, Volumes, Timings  
1: Singleton Rd. & I-10 EB Ramps

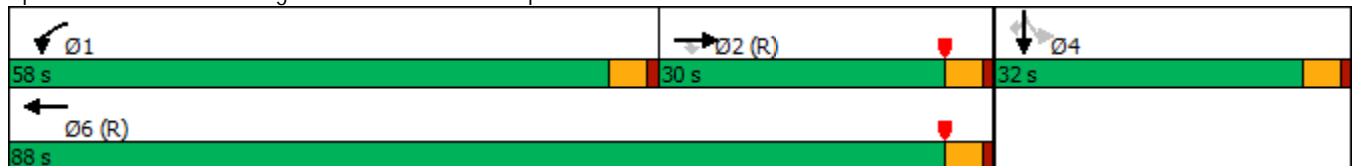
OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	112	41	358	156	0	0	0	0	114	0	209
Future Volume (vph)	0	112	41	358	156	0	0	0	0	114	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	70		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			60			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1255			647			1041			468	
Travel Time (s)		28.5			14.7			23.7			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		30.0	30.0	58.0	88.0					32.0	32.0	32.0
Total Split (%)		25.0%	25.0%	48.3%	73.3%					26.7%	26.7%	26.7%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated



















Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps





HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	112	41	358	156	0	0	0	0	114	0	209
Future Volume (veh/h)	0	112	41	358	156	0	0	0	0	114	0	209
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	123	45	393	171	0				125	0	230
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	787	667	423	1301	0				408	0	363
Arrive On Green	0.00	0.42	0.42	0.40	1.00	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	123	45	393	171	0				125	0	230
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	4.9	2.0	25.3	0.0	0.0				7.0	0.0	15.7
Cycle Q Clear(g_c), s	0.0	4.9	2.0	25.3	0.0	0.0				7.0	0.0	15.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	787	667	423	1301	0				408	0	363
V/C Ratio(X)	0.00	0.16	0.07	0.93	0.13	0.00				0.31	0.00	0.63
Avail Cap(c_a), veh/h	0	787	667	794	1301	0				408	0	363
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.6	20.7	35.2	0.0	0.0				38.3	0.0	41.7
Incr Delay (d2), s/veh	0.0	0.4	0.2	8.9	0.2	0.0				1.9	0.0	8.2
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	2.3	0.8	10.6	0.1	0.0				3.3	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.0	20.9	44.1	0.2	0.0				40.3	0.0	49.9
LnGrp LOS	A	C	C	D	A	A				D	A	D
Approach Vol, veh/h		168			564						355	
Approach Delay, s/veh		21.7			30.8						46.5	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	33.0	55.0		32.0		88.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	53.5	25.5		27.5		83.5						
Max Q Clear Time (g_c+I1), s	27.3	6.9		17.7		2.0						
Green Ext Time (p_c), s	1.2	0.7		1.1		1.1						

Intersection Summary

HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
2: Singleton Rd. & I-10 WB Ramps

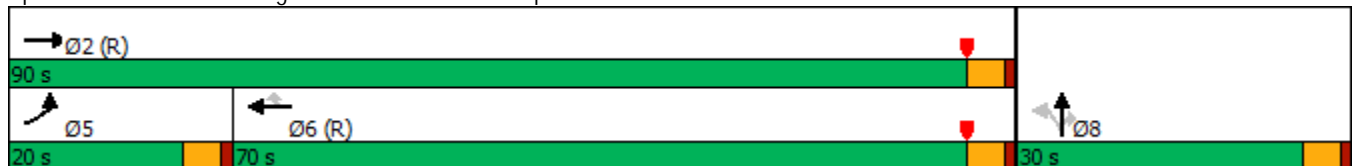
OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	154	0	0	402	266	111	0	232	0	0	0
Future Volume (vph)	72	154	0	0	402	266	111	0	232	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70		0	0		200	200		50	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	60			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		647			547			1033			503	
Travel Time (s)		14.7			12.4			23.5			11.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			60.0	60.0	22.5	22.5	22.5			
Total Split (s)	20.0	90.0			70.0	70.0	30.0	30.0	30.0			
Total Split (%)	16.7%	75.0%			58.3%	58.3%	25.0%	25.0%	25.0%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	154	0	0	402	266	111	0	232	0	0	0
Future Volume (veh/h)	72	154	0	0	402	266	111	0	232	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	77	166	0	0	432	286	119	0	249			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	98	1401	0	0	1228	1040	314	0	279			
Arrive On Green	0.11	1.00	0.00	0.00	1.00	1.00	0.18	0.00	0.18			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	77	166	0	0	432	286	119	0	249			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	5.1	0.0	0.0	0.0	0.0	0.0	7.1	0.0	18.4			
Cycle Q Clear(g_c), s	5.1	0.0	0.0	0.0	0.0	0.0	7.1	0.0	18.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	98	1401	0	0	1228	1040	314	0	279			
V/C Ratio(X)	0.79	0.12	0.00	0.00	0.35	0.27	0.38	0.00	0.89			
Avail Cap(c_a), veh/h	230	1401	0	0	1228	1040	379	0	337			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.64	0.64	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.7	0.0	0.0	0.0	0.0	0.0	43.6	0.0	48.3			
Incr Delay (d2), s/veh	12.8	0.2	0.0	0.0	0.5	0.4	0.8	0.0	21.7			
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	2.5	0.1	0.0	0.0	0.2	0.1	3.2	0.0	8.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	0.2	0.0	0.0	0.5	0.4	44.4	0.0	70.0			
LnGrp LOS	E	A	A	A	A	A	D	A	E			
Approach Vol, veh/h		243			718			368				
Approach Delay, s/veh		20.9			0.5			61.8				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		94.4			11.1	83.3		25.6				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		85.5			15.5	65.5		25.5				
Max Q Clear Time (g_c+I1), s		2.0			7.1	2.0		20.4				
Green Ext Time (p_c), s		1.0			0.1	4.2		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					21.2							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

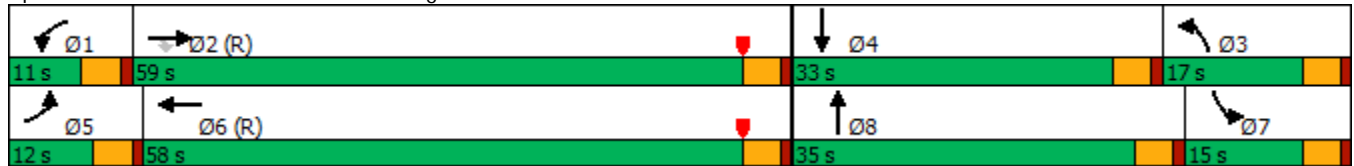
OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	196	113	29	447	176	81	244	136	64	26	141
Future Volume (vph)	77	196	113	29	447	176	81	244	136	64	26	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		547			300			993			1412	
Travel Time (s)		12.4			6.8			22.6			32.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	2	1	6		3	8		7	4	
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)	9.5	57.0	57.0	9.5	57.0		9.5	22.5		15.0	22.5	
Total Split (s)	12.0	59.0	59.0	11.0	58.0		17.0	35.0		15.0	33.0	
Total Split (%)	10.0%	49.2%	49.2%	9.2%	48.3%		14.2%	29.2%		12.5%	27.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	196	113	29	447	176	81	244	136	64	26	141
Future Volume (veh/h)	77	196	113	29	447	176	81	244	136	64	26	141
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	83	211	122	31	481	189	87	262	146	69	28	152
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	985	834	48	632	248	294	279	155	89	33	181
Arrive On Green	0.08	0.70	0.70	0.03	0.49	0.49	0.16	0.25	0.25	0.05	0.13	0.13
Sat Flow, veh/h	1781	1870	1585	1781	1278	502	1781	1128	629	1781	253	1371
Grp Volume(v), veh/h	83	211	122	31	0	670	87	0	408	69	0	180
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1780	1781	0	1757	1781	0	1624
Q Serve(g_s), s	5.5	4.8	1.5	2.1	0.0	36.6	5.1	0.0	27.3	4.6	0.0	13.0
Cycle Q Clear(g_c), s	5.5	4.8	1.5	2.1	0.0	36.6	5.1	0.0	27.3	4.6	0.0	13.0
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.36	1.00		0.84
Lane Grp Cap(c), veh/h	104	985	834	48	0	881	294	0	434	89	0	214
V/C Ratio(X)	0.80	0.21	0.15	0.65	0.00	0.76	0.30	0.00	0.94	0.78	0.00	0.84
Avail Cap(c_a), veh/h	111	985	834	96	0	881	294	0	447	156	0	386
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.6	9.2	2.2	57.8	0.0	24.6	44.0	0.0	44.3	56.4	0.0	50.9
Incr Delay (d2), s/veh	28.2	0.5	0.3	13.8	0.0	6.2	0.6	0.0	27.7	13.6	0.0	8.6
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	3.2	2.0	1.1	1.1	0.0	16.5	2.3	0.0	15.1	2.4	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.8	9.7	2.5	71.6	0.0	30.7	44.5	0.0	72.0	70.0	0.0	59.5
LnGrp LOS	F	A	A	E	A	C	D	A	E	E	A	E
Approach Vol, veh/h		416			701			495			249	
Approach Delay, s/veh		22.2			32.5			67.2			62.4	
Approach LOS		C			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	67.7	24.3	20.3	11.5	63.9	10.5	34.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	54.5	12.5	28.5	7.5	53.5	10.5	30.5				
Max Q Clear Time (g_c+I1), s	4.1	6.8	7.1	15.0	7.5	38.6	6.6	29.3				
Green Ext Time (p_c), s	0.0	1.7	0.1	0.8	0.0	4.2	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay	43.4
HCM 6th LOS	D

Lanes, Volumes, Timings  
4: Beckwith Av. & Singleton Rd.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	384	12	3	631	21	2
Future Volume (vph)	384	12	3	631	21	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	30			30	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	9.3			38.7	7.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	384	12	3	631	21	2
Future Vol, veh/h	384	12	3	631	21	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	392	12	3	644	21	2























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	404	0	1048 398
Stage 1	-	-	-	-	398 -
Stage 2	-	-	-	-	650 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1155	-	252 652
Stage 1	-	-	-	-	678 -
Stage 2	-	-	-	-	520 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1155	-	251 652
Mov Cap-2 Maneuver	-	-	-	-	251 -
Stage 1	-	-	-	-	678 -
Stage 2	-	-	-	-	518 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	265	-	-	1155	-
HCM Lane V/C Ratio	0.089	-	-	0.003	-
HCM Control Delay (s)	19.9	-	-	8.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Lanes, Volumes, Timings  
 5: Singleton Cyn. Rd. & Singleton Rd.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
 WITH IMPROVEMENTS

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	34	347	4	1	498	13	7	1	1	21	1	108
Future Volume (vph)	34	347	4	1	498	13	7	1	1	21	1	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		17.5			16.6			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											



Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕↗		↕↗	↕↗
Traffic Vol, veh/h	34	347	4	1	498	13	7	1	1	21	1	108
Future Vol, veh/h	34	347	4	1	498	13	7	1	1	21	1	108
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	365	4	1	524	14	7	1	1	22	1	114
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	12.4	15	10.8	10.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	88%	0%	100%	0%	0%	100%	0%	0%	95%	0%
Vol Thru, %	12%	0%	0%	100%	97%	0%	100%	93%	5%	0%
Vol Right, %	0%	100%	0%	0%	3%	0%	0%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	1	34	231	120	1	332	179	22	108
LT Vol	7	0	34	0	0	1	0	0	21	0
Through Vol	1	0	0	231	116	0	332	166	1	0
RT Vol	0	1	0	0	4	0	0	13	0	108
Lane Flow Rate	8	1	36	244	126	1	349	188	23	114
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.019	0.002	0.067	0.424	0.219	0.002	0.586	0.313	0.049	0.203
Departure Headway (Hd)	7.94	6.796	6.776	6.273	6.249	6.537	6.034	5.982	7.598	6.418
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	449	524	528	572	573	547	598	601	471	558
Service Time	5.712	4.567	4.524	4.02	3.996	4.278	3.775	3.723	5.355	4.174
HCM Lane V/C Ratio	0.018	0.002	0.068	0.427	0.22	0.002	0.584	0.313	0.049	0.204
HCM Control Delay	10.9	9.6	10	13.6	10.8	9.3	17	11.4	10.7	10.8
HCM Lane LOS	B	A	A	B	B	A	C	B	B	B
HCM 95th-tile Q	0.1	0	0.2	2.1	0.8	0	3.8	1.3	0.2	0.8

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

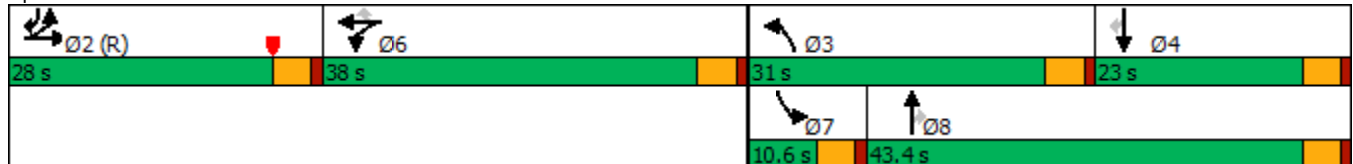
OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	181	42	17	318	20	223	461	162	23	148	309
Future Volume (vph)	131	181	42	17	318	20	223	461	162	23	148	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			14.4			5.7			14.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)	11%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	28.0	28.0		38.0	38.0	38.0	31.0	43.4	43.4	10.6	23.0	28.0
Total Split (%)	23.3%	23.3%		31.7%	31.7%	31.7%	25.8%	36.2%	36.2%	8.8%	19.2%	23.3%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max

Intersection Summary

























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 										
Traffic Volume (veh/h)	131	181	42	17	318	20	223	461	162	23	148	309
Future Volume (veh/h)	131	181	42	17	318	20	223	461	162	23	148	309
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	234	49	20	374	24	262	542	191	27	174	364
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	495	836	172	398	418	354	293	1152	514	44	345	733
Arrive On Green	0.28	0.28	0.28	0.22	0.22	0.22	0.16	0.32	0.32	0.02	0.18	0.18
Sat Flow, veh/h	1781	3011	619	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	139	144	139	20	374	24	262	542	191	27	174	364
Grp Sat Flow(s),veh/h/ln	1781	1870	1759	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.6	11.1	1.8	10.0	19.2
Cycle Q Clear(g_c), s	7.3	7.2	7.5	1.1	23.3	1.4	17.3	14.6	11.1	1.8	10.0	19.2
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	495	519	489	398	418	354	293	1152	514	44	345	733
V/C Ratio(X)	0.28	0.28	0.29	0.05	0.90	0.07	0.89	0.47	0.37	0.61	0.50	0.50
Avail Cap(c_a), veh/h	495	519	489	497	522	442	393	1152	514	91	345	733
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	33.9	33.9	34.0	36.6	45.2	36.7	49.1	32.3	31.2	57.9	44.0	22.5
Incr Delay (d2), s/veh	1.4	1.3	1.5	0.1	15.4	0.1	18.0	1.4	2.1	13.0	5.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.5	3.4	0.5	12.5	0.6	9.1	6.4	4.5	1.0	5.1	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	35.2	35.5	36.7	60.6	36.8	67.1	33.7	33.2	71.0	49.2	24.9
LnGrp LOS	D	D	D	D	E	D	E	C	C	E	D	C
Approach Vol, veh/h		422			418			995			565	
Approach Delay, s/veh		35.3			58.1			42.4			34.6	
Approach LOS		D			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		37.8	24.2	26.6		31.3	7.5	43.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	26.5	18.5		33.5	6.1	38.9				
Max Q Clear Time (g_c+I1), s		9.5	19.3	21.2		25.3	3.8	16.6				
Green Ext Time (p_c), s		1.7	0.4	0.0		1.5	0.0	4.2				

Intersection Summary

HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

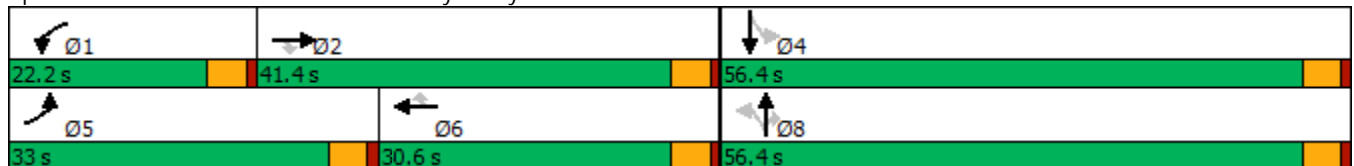
OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	420	21	127	371	338	12	23	121	468	21	221
Future Volume (vph)	306	420	21	127	371	338	12	23	121	468	21	221
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		50	100		100	150		0
Storage Lanes	1		1	1		1	0		0	1		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	33.0	41.4	41.4	22.2	30.6	30.6	56.4	56.4	56.4	56.4	56.4	56.4
Total Split (%)	27.5%	34.5%	34.5%	18.5%	25.5%	25.5%	47.0%	47.0%	47.0%	47.0%	47.0%	47.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max

Intersection Summary

























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 110.7  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	420	21	127	371	338	12	23	121	468	21	221
Future Volume (veh/h)	306	420	21	127	371	338	12	23	121	468	21	221
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	336	462	23	140	408	371	13	25	133	514	23	243
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	1200	535	169	805	359	442	842	714	606	63	661
Arrive On Green	0.21	0.34	0.34	0.09	0.23	0.23	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1113	1870	1585	1228	139	1467
Grp Volume(v), veh/h	336	462	23	140	408	371	13	25	133	514	0	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1113	1870	1585	1228	0	1606
Q Serve(g_s), s	21.3	11.4	1.1	8.9	11.6	26.1	0.9	0.9	5.8	46.2	0.0	12.6
Cycle Q Clear(g_c), s	21.3	11.4	1.1	8.9	11.6	26.1	13.5	0.9	5.8	47.1	0.0	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Lane Grp Cap(c), veh/h	367	1200	535	169	805	359	442	842	714	606	0	723
V/C Ratio(X)	0.91	0.39	0.04	0.83	0.51	1.03	0.03	0.03	0.19	0.85	0.00	0.37
Avail Cap(c_a), veh/h	440	1200	535	274	805	359	442	842	714	606	0	723
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	44.8	29.1	25.7	51.2	39.0	44.6	25.3	17.7	19.0	30.8	0.0	20.9
Incr Delay (d2), s/veh	21.3	0.2	0.0	10.5	0.5	56.5	0.1	0.1	0.6	13.7	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	4.8	0.4	4.4	5.1	15.7	0.3	0.4	2.2	15.5	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	29.3	25.7	61.8	39.5	101.1	25.4	17.7	19.6	44.5	0.0	22.3
LnGrp LOS	E	C	C	E	D	F	C	B	B	D	A	C
Approach Vol, veh/h		821			919			171			780	
Approach Delay, s/veh		44.2			67.7			19.8			36.9	
Approach LOS		D			E			B			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.4	43.4		56.4	28.3	30.6		56.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	17.7	36.9		51.9	28.5	26.1		51.9				
Max Q Clear Time (g_c+I1), s	10.9	13.4		49.1	23.3	28.1		15.5				
Green Ext Time (p_c), s	0.2	3.1		1.1	0.5	0.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

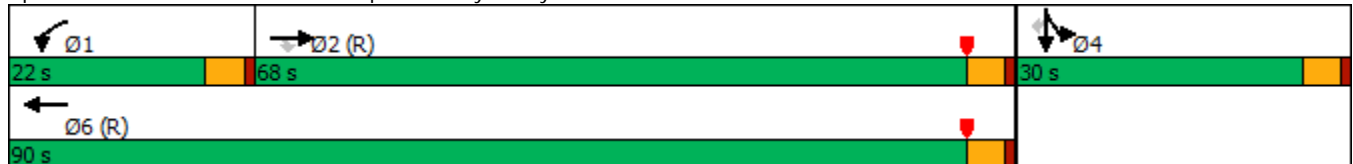
OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	812	197	200	420	0	0	0	0	291	0	415
Future Volume (vph)	0	812	197	200	420	0	0	0	0	291	0	415
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	145		0	0		0	0		345
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			90			90			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		450			641			982			791	
Travel Time (s)		8.8			12.5			22.3			18.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
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)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					21.8	21.8	21.8
Total Split (s)		68.0	68.0	22.0	90.0					30.0	30.0	30.0
Total Split (%)		56.7%	56.7%	18.3%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Min	C-Min	None	C-Min					Max	Max	Max

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	812	197	200	420	0	0	0	0	291	0	415
Future Volume (veh/h)	0	812	197	200	420	0	0	0	0	291	0	415
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	873	104	215	452	0				313	0	231
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1012	858	238	1333	0				379	0	337
Arrive On Green	0.00	0.54	0.54	0.27	1.00	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	873	104	215	452	0				313	0	231
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	48.2	3.9	14.0	0.0	0.0				20.1	0.0	16.1
Cycle Q Clear(g_c), s	0.0	48.2	3.9	14.0	0.0	0.0				20.1	0.0	16.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1012	858	238	1333	0				379	0	337
V/C Ratio(X)	0.00	0.86	0.12	0.90	0.34	0.00				0.83	0.00	0.69
Avail Cap(c_a), veh/h	0	1012	858	260	1333	0				379	0	337
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.58	0.58	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.7	13.5	43.2	0.0	0.0				45.1	0.0	43.6
Incr Delay (d2), s/veh	0.0	9.7	0.3	20.1	0.4	0.0				18.4	0.0	10.8
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	0.0	22.7	1.4	6.6	0.1	0.0				10.8	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.3	13.8	63.3	0.4	0.0				63.5	0.0	54.4
LnGrp LOS	A	C	B	E	A	A				E	A	D
Approach Vol, veh/h		977			667						544	
Approach Delay, s/veh		31.3			20.7						59.6	
Approach LOS		C			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.6	69.4		30.0		90.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	17.5	63.5		25.5		85.5						
Max Q Clear Time (g_c+I1), s	16.0	50.2		22.1		2.0						
Green Ext Time (p_c), s	0.1	5.6		0.9		3.1						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				35.1								
HCM 6th LOS				D								

Lanes, Volumes, Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

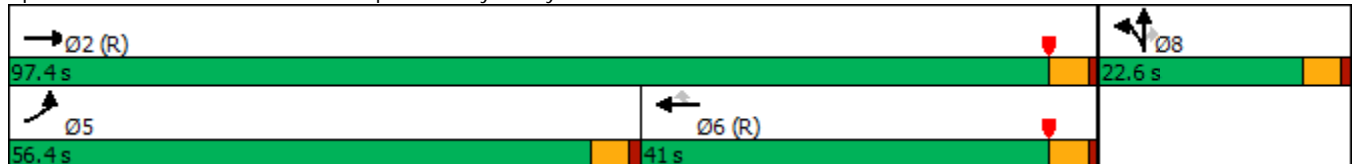
OY (2025) w/ Scenario 1 Project AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	626	475	0	0	436	549	185	11	321	0	0	0
Future Volume (vph)	626	475	0	0	436	549	185	11	321	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	285		0	0		0	0		130	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	90			90			120			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		641			240			619			885	
Travel Time (s)		12.5			4.7			14.1			20.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
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	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	22.5	22.5			22.5	22.5	21.8	21.8	21.8			
Total Split (s)	56.4	97.4			41.0	41.0	22.6	22.6	22.6			
Total Split (%)	47.0%	81.2%			34.2%	34.2%	18.8%	18.8%	18.8%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated



















Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	626	475	0	0	436	549	185	11	321	0	0	0
Future Volume (veh/h)	626	475	0	0	436	549	185	11	321	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	673	511	0	0	469	321	199	12	184			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	692	1476	0	0	679	575	229	14	216			
Arrive On Green	0.65	1.00	0.00	0.00	0.48	0.48	0.14	0.14	0.14			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1685	102	1585			
Grp Volume(v), veh/h	673	511	0	0	469	321	211	0	184			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1786	0	1585			
Q Serve(g_s), s	43.1	0.0	0.0	0.0	23.3	17.2	13.9	0.0	13.6			
Cycle Q Clear(g_c), s	43.1	0.0	0.0	0.0	23.3	17.2	13.9	0.0	13.6			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	692	1476	0	0	679	575	243	0	216			
V/C Ratio(X)	0.97	0.35	0.00	0.00	0.69	0.56	0.87	0.00	0.85			
Avail Cap(c_a), veh/h	770	1476	0	0	679	575	269	0	239			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.28	0.28	0.00	0.00	0.54	0.54	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.5	0.0	0.0	0.0	25.8	24.2	50.8	0.0	50.7			
Incr Delay (d2), s/veh	11.0	0.2	0.0	0.0	3.1	2.1	23.2	0.0	23.0			
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	14.0	0.1	0.0	0.0	9.8	6.1	7.8	0.0	6.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	0.2	0.0	0.0	28.9	26.3	74.0	0.0	73.7			
LnGrp LOS	C	A	A	A	C	C	E	A	E			
Approach Vol, veh/h		1184			790			395				
Approach Delay, s/veh		17.9			27.9			73.9				
Approach LOS		B			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		99.2			51.1	48.1		20.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		92.9			51.9	36.5		18.1				
Max Q Clear Time (g_c+I1), s		2.0			45.1	25.3		15.9				
Green Ext Time (p_c), s		3.6			1.5	3.1		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				30.6								
HCM 6th LOS				C								

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
 WITH IMPROVEMENTS

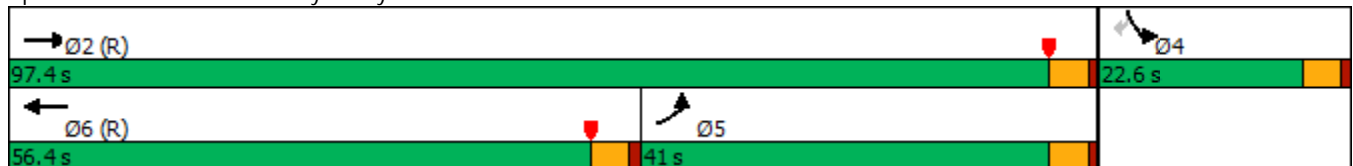


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↗	↑	↕		↖	↗
Traffic Volume (vph)	328	468	911	138	39	73
Future Volume (vph)	328	468	911	138	39	73
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	150
Storage Lanes	0			0	1	1
Taper Length (ft)	60				90	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	9.5	22.5	22.5		22.5	22.5
Total Split (s)	41.0	97.4	56.4		22.6	22.6
Total Split (%)	34.2%	81.2%	47.0%		18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
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)	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 1 Project AM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↕		↖	↗
Traffic Volume (veh/h)	328	468	911	138	39	73
Future Volume (veh/h)	328	468	911	138	39	73
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	381	544	1059	160	45	85
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	542	1448	1339	202	269	239
Arrive On Green	0.61	1.00	0.43	0.43	0.15	0.15
Sat Flow, veh/h	1781	1870	3190	467	1781	1585
Grp Volume(v), veh/h	381	544	607	612	45	85
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1786	1781	1585
Q Serve(g_s), s	17.6	0.0	35.3	35.5	2.6	5.8
Cycle Q Clear(g_c), s	17.6	0.0	35.3	35.5	2.6	5.8
Prop In Lane	1.00			0.26	1.00	1.00
Lane Grp Cap(c), veh/h	542	1448	768	773	269	239
V/C Ratio(X)	0.70	0.38	0.79	0.79	0.17	0.36
Avail Cap(c_a), veh/h	542	1448	768	773	269	239
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	29.3	29.4	44.4	45.7
Incr Delay (d2), s/veh	3.6	0.7	8.1	8.2	1.3	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.3	16.3	16.5	1.3	5.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	0.7	37.5	37.6	45.7	49.8
LnGrp LOS	C	A	D	D	D	D
Approach Vol, veh/h		925	1219		130	
Approach Delay, s/veh		10.0	37.5		48.4	
Approach LOS		B	D		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	41.0	56.4
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	36.5	51.9
Max Q Clear Time (g_c+I1), s		2.0		7.8	19.6	37.5
Green Ext Time (p_c), s		3.9		0.2	1.1	6.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			27.0			
HCM 6th LOS			C			

Lanes, Volumes, Timings  
1: Singleton Rd. & I-10 EB Ramps

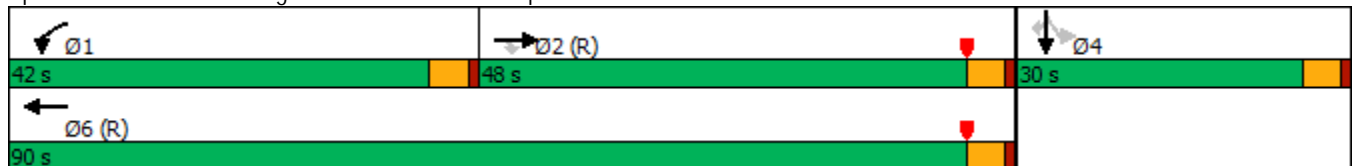
OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	295	141	239	109	0	0	0	0	160	0	122
Future Volume (vph)	0	295	141	239	109	0	0	0	0	160	0	122
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	70		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			60			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1255			647			1041			468	
Travel Time (s)		28.5			14.7			23.7			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		48.0	48.0	42.0	90.0					30.0	30.0	30.0
Total Split (%)		40.0%	40.0%	35.0%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	295	141	239	109	0	0	0	0	160	0	122
Future Volume (veh/h)	0	295	141	239	109	0	0	0	0	160	0	122
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	324	155	263	120	0				176	0	134
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	955	809	293	1333	0				379	0	337
Arrive On Green	0.00	0.51	0.51	0.27	1.00	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	324	155	263	120	0				176	0	134
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	12.3	6.4	17.1	0.0	0.0				10.4	0.0	8.7
Cycle Q Clear(g_c), s	0.0	12.3	6.4	17.1	0.0	0.0				10.4	0.0	8.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	955	809	293	1333	0				379	0	337
V/C Ratio(X)	0.00	0.34	0.19	0.90	0.09	0.00				0.46	0.00	0.40
Avail Cap(c_a), veh/h	0	955	809	557	1333	0				379	0	337
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.97	0.97	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.4	15.9	42.5	0.0	0.0				41.3	0.0	40.6
Incr Delay (d2), s/veh	0.0	0.9	0.5	9.3	0.1	0.0				4.1	0.0	3.5
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	0.0	5.5	2.4	7.5	0.0	0.0				5.0	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.3	16.4	51.8	0.1	0.0				45.4	0.0	44.1
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		479			383						310	
Approach Delay, s/veh		17.7			35.6						44.8	
Approach LOS		B			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.3	65.7		30.0		90.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	37.5	43.5		25.5		85.5						
Max Q Clear Time (g_c+I1), s	19.1	14.3		12.4		2.0						
Green Ext Time (p_c), s	0.7	2.6		1.2		0.7						

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
2: Singleton Rd. & I-10 WB Ramps

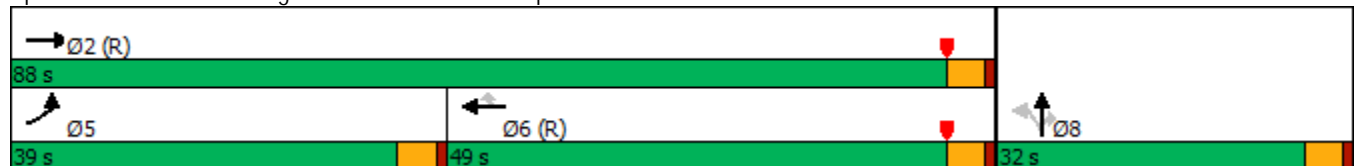
OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	215	0	0	286	316	63	0	323	0	0	0
Future Volume (vph)	240	215	0	0	286	316	63	0	323	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70		0	0		200	200		50	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	60			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		647			547			1033			503	
Travel Time (s)		14.7			12.4			23.5			11.4	
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	39.0	22.5			49.0	49.0	32.0	32.0	32.0			
Total Split (s)	39.0	88.0			49.0	49.0	32.0	32.0	32.0			
Total Split (%)	32.5%	73.3%			40.8%	40.8%	26.7%	26.7%	26.7%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	215	0	0	286	316	63	0	323	0	0	0
Future Volume (veh/h)	240	215	0	0	286	316	63	0	323	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	261	234	0	0	311	343	68	0	351			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	291	1301	0	0	926	785	408	0	363			
Arrive On Green	0.27	1.00	0.00	0.00	0.83	0.83	0.23	0.00	0.23			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	261	234	0	0	311	343	68	0	351			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	16.9	0.0	0.0	0.0	4.8	7.0	3.7	0.0	26.3			
Cycle Q Clear(g_c), s	16.9	0.0	0.0	0.0	4.8	7.0	3.7	0.0	26.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	291	1301	0	0	926	785	408	0	363			
V/C Ratio(X)	0.90	0.18	0.00	0.00	0.34	0.44	0.17	0.00	0.97			
Avail Cap(c_a), veh/h	512	1301	0	0	926	785	408	0	363			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.67	1.67	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	0.83	0.83	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.7	0.0	0.0	0.0	5.7	5.9	37.1	0.0	45.8			
Incr Delay (d2), s/veh	9.7	0.3	0.0	0.0	0.8	1.5	0.2	0.0	38.2			
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	7.5	0.1	0.0	0.0	1.8	2.1	1.6	0.0	14.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	0.3	0.0	0.0	6.5	7.3	37.3	0.0	84.0			
LnGrp LOS	D	A	A	A	A	A	D	A	F			
Approach Vol, veh/h		495			654			419				
Approach Delay, s/veh		27.8			6.9			76.4				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		88.0			24.1	63.9		32.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		83.5			34.5	44.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0			18.9	9.0		28.3				
Green Ext Time (p_c), s		1.5			0.7	3.3		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					32.1							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

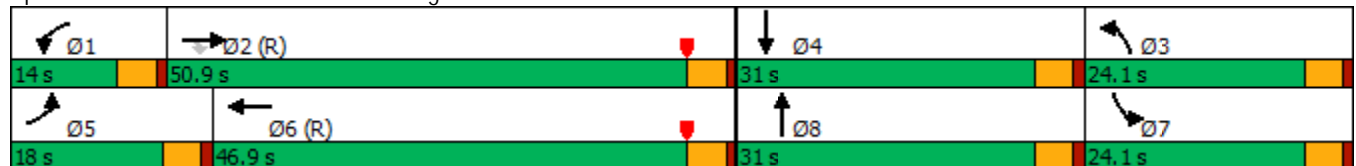
OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	319	129	54	305	72	159	56	26	159	110	137
Future Volume (vph)	91	319	129	54	305	72	159	56	26	159	110	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		547			300			993			1412	
Travel Time (s)		12.4			6.8			22.6			32.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	2	1	6		3	8		7	4	
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)	9.5	22.5	22.5	9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	18.0	50.9	50.9	14.0	46.9		24.1	31.0		24.1	31.0	
Total Split (%)	15.0%	42.4%	42.4%	11.7%	39.1%		20.1%	25.8%		20.1%	25.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated























Splits and Phases: 3: Calimesa Bl. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	319	129	54	305	72	159	56	26	159	110	137
Future Volume (veh/h)	91	319	129	54	305	72	159	56	26	159	110	137
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	94	329	133	56	314	74	164	58	27	164	113	141
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	994	843	72	741	175	193	101	47	346	128	160
Arrive On Green	0.11	0.89	0.89	0.04	0.51	0.51	0.11	0.08	0.08	0.19	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1463	345	1781	1207	562	1781	756	944
Grp Volume(v), veh/h	94	329	133	56	0	388	164	0	85	164	0	254
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1808	1781	0	1769	1781	0	1700
Q Serve(g_s), s	6.2	3.4	0.8	3.7	0.0	16.2	10.8	0.0	5.6	9.8	0.0	17.5
Cycle Q Clear(g_c), s	6.2	3.4	0.8	3.7	0.0	16.2	10.8	0.0	5.6	9.8	0.0	17.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.32	1.00		0.56
Lane Grp Cap(c), veh/h	117	994	843	72	0	916	193	0	147	346	0	288
V/C Ratio(X)	0.80	0.33	0.16	0.77	0.00	0.42	0.85	0.00	0.58	0.47	0.00	0.88
Avail Cap(c_a), veh/h	200	994	843	141	0	916	291	0	391	346	0	376
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.6	3.3	1.2	57.0	0.0	18.6	52.5	0.0	53.0	42.9	0.0	48.7
Incr Delay (d2), s/veh	10.3	0.8	0.3	15.9	0.0	1.4	13.7	0.0	3.5	1.0	0.0	17.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.3	0.5	2.0	0.0	7.1	5.6	0.0	2.6	4.4	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	4.1	1.5	73.0	0.0	20.0	66.3	0.0	56.5	43.9	0.0	66.1
LnGrp LOS	E	A	A	E	A	C	E	A	E	D	A	E
Approach Vol, veh/h		556			444			249			418	
Approach Delay, s/veh		13.4			26.7			62.9			57.4	
Approach LOS		B			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	68.3	17.5	24.8	12.4	65.3	27.8	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	46.4	19.6	26.5	13.5	42.4	19.6	26.5				
Max Q Clear Time (g_c+I1), s	5.7	5.4	12.8	19.5	8.2	18.2	11.8	7.6				
Green Ext Time (p_c), s	0.0	2.6	0.2	0.8	0.1	2.5	0.2	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			35.4									
HCM 6th LOS			D									

Lanes, Volumes, Timings  
4: Beckwith Av. & Singleton Rd.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	475	29	5	414	17	4
Future Volume (vph)	475	29	5	414	17	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	30			30	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	9.3			38.7	7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	475	29	5	414	17	4
Future Vol, veh/h	475	29	5	414	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	500	31	5	436	18	4























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	531	0	962 516
Stage 1	-	-	-	-	516 -
Stage 2	-	-	-	-	446 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1036	-	284 559
Stage 1	-	-	-	-	599 -
Stage 2	-	-	-	-	645 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1036	-	283 559
Mov Cap-2 Maneuver	-	-	-	-	283 -
Stage 1	-	-	-	-	599 -
Stage 2	-	-	-	-	642 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	1036	-
HCM Lane V/C Ratio	0.071	-	-	0.005	-
HCM Control Delay (s)	17.4	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	89	391	1	1	357	14	1	1	2	17	1	42
Future Volume (vph)	89	391	1	1	357	14	1	1	2	17	1	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		17.5			16.6			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕		↕↗	↕
Traffic Vol, veh/h	89	391	1	1	357	14	1	1	2	17	1	42
Future Vol, veh/h	89	391	1	1	357	14	1	1	2	17	1	42
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	93	407	1	1	372	15	1	1	2	18	1	44
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	11.2	11.5	9.6	9.7
HCM LOS	B	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	50%	0%	100%	0%	0%	100%	0%	0%	94%	0%
Vol Thru, %	50%	0%	0%	100%	99%	0%	100%	89%	6%	0%
Vol Right, %	0%	100%	0%	0%	1%	0%	0%	11%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	2	89	261	131	1	238	133	18	42
LT Vol	1	0	89	0	0	1	0	0	17	0
Through Vol	1	0	0	261	130	0	238	119	1	0
RT Vol	0	2	0	0	1	0	0	14	0	42
Lane Flow Rate	2	2	93	272	137	1	248	139	19	44
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.004	0.004	0.156	0.418	0.211	0.002	0.395	0.222	0.038	0.075
Departure Headway (Hd)	7.271	6.318	6.151	5.649	5.644	6.336	5.735	5.761	7.322	6.149
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	494	569	587	641	640	568	620	628	492	586
Service Time	4.981	4.028	3.851	3.349	3.344	4.036	3.535	3.461	5.027	3.854
HCM Lane V/C Ratio	0.004	0.004	0.158	0.424	0.214	0.002	0.4	0.221	0.039	0.075
HCM Control Delay	10	9.1	10	12.3	9.8	9	12.3	10.1	10.3	9.4
HCM Lane LOS	A	A	A	B	A	A	B	B	B	A
HCM 95th-tile Q	0	0	0.5	2.1	0.8	0	1.9	0.8	0.1	0.2

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

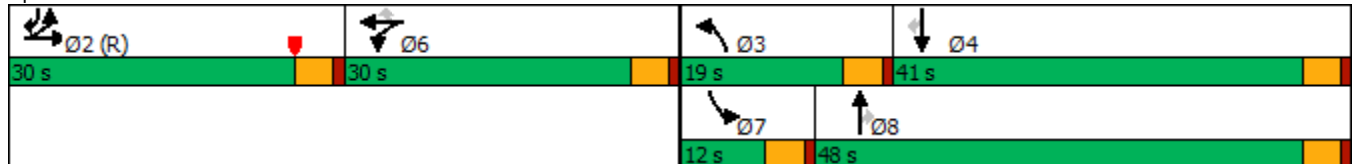
OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	90	86	40	189	28	82	360	171	32	296	340
Future Volume (vph)	96	90	86	40	189	28	82	360	171	32	296	340
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			14.4			5.7			14.6	
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
Shared Lane Traffic (%)	10%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	30.0	30.0		30.0	30.0	30.0	19.0	48.0	48.0	12.0	41.0	30.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%	25.0%	15.8%	40.0%	40.0%	10.0%	34.2%	25.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max

Intersection Summary
























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	90	86	40	189	28	82	360	171	32	296	340
Future Volume (veh/h)	96	90	86	40	189	28	82	360	171	32	296	340
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	96	104	91	43	201	30	87	383	182	34	315	362
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	587	636	506	231	242	205	110	1288	575	50	615	1044
Arrive On Green	0.33	0.33	0.33	0.13	0.13	0.13	0.06	0.36	0.36	0.03	0.33	0.33
Sat Flow, veh/h	1781	1930	1534	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	96	100	95	43	201	30	87	383	182	34	315	362
Grp Sat Flow(s),veh/h/ln	1781	1870	1594	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.6	4.6	5.1	2.6	12.6	2.0	5.8	9.2	9.9	2.3	16.3	12.1
Cycle Q Clear(g_c), s	4.6	4.6	5.1	2.6	12.6	2.0	5.8	9.2	9.9	2.3	16.3	12.1
Prop In Lane	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	587	617	526	231	242	205	110	1288	575	50	615	1044
V/C Ratio(X)	0.16	0.16	0.18	0.19	0.83	0.15	0.79	0.30	0.32	0.68	0.51	0.35
Avail Cap(c_a), veh/h	587	617	526	379	397	337	215	1288	575	111	615	1044
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	28.5	28.5	28.7	46.6	50.9	46.3	55.5	27.3	27.5	57.8	32.5	9.1
Incr Delay (d2), s/veh	0.6	0.6	0.7	0.4	7.4	0.3	11.7	0.6	1.4	14.6	3.0	0.9
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	2.1	2.2	2.1	1.2	6.4	0.8	2.9	4.0	4.0	1.2	7.8	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	29.0	29.4	47.0	58.4	46.7	67.2	27.9	29.0	72.4	35.5	10.0
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	A
Approach Vol, veh/h		291			274			652			711	
Approach Delay, s/veh		29.2			55.3			33.5			24.3	
Approach LOS		C			E			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.1	11.9	44.0		20.0	7.9	48.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	14.5	36.5		25.5	7.5	43.5				
Max Q Clear Time (g_c+I1), s		7.1	7.8	18.3		14.6	4.3	11.9				
Green Ext Time (p_c), s		1.3	0.1	3.0		1.0	0.0	3.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				32.5								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	509	24	258	578	346	24	8	139	266	12	237
Future Volume (vph)	161	509	24	258	578	346	24	8	139	266	12	237
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		50	100		100	150		0
Storage Lanes	1		1	1		1	0		0	1		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	27.0	38.0	38.0	37.0	48.0	48.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	22.5%	31.7%	31.7%	30.8%	40.0%	40.0%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 95  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↗	↘
Traffic Volume (veh/h)	161	509	24	258	578	346	24	8	139	266	12	237
Future Volume (veh/h)	161	509	24	258	578	346	24	8	139	266	12	237
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	169	536	25	272	608	364	25	8	146	280	13	249
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	207	823	367	316	1040	464	452	829	702	622	35	672
Arrive On Green	0.12	0.23	0.23	0.18	0.29	0.29	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1117	1870	1585	1233	79	1518
Grp Volume(v), veh/h	169	536	25	272	608	364	25	8	146	280	0	262
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1117	1870	1585	1233	0	1597
Q Serve(g_s), s	8.5	12.5	1.1	13.5	13.3	19.3	1.4	0.2	5.2	15.0	0.0	10.0
Cycle Q Clear(g_c), s	8.5	12.5	1.1	13.5	13.3	19.3	11.4	0.2	5.2	15.2	0.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	207	823	367	316	1040	464	452	829	702	622	0	708
V/C Ratio(X)	0.81	0.65	0.07	0.86	0.58	0.78	0.06	0.01	0.21	0.45	0.00	0.37
Avail Cap(c_a), veh/h	438	1302	581	633	1691	754	452	829	702	622	0	708
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	31.8	27.4	36.5	27.6	29.7	20.8	14.2	15.6	18.5	0.0	17.0
Incr Delay (d2), s/veh	7.5	0.9	0.1	6.8	0.5	3.0	0.2	0.0	0.7	2.3	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	4.0	5.3	0.4	6.3	5.5	7.4	0.4	0.1	1.9	4.5	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	32.7	27.5	43.3	28.1	32.6	21.0	14.3	16.3	20.8	0.0	18.4
LnGrp LOS	D	C	C	D	C	C	C	B	B	C	A	B
Approach Vol, veh/h		730			1244			179			542	
Approach Delay, s/veh		35.8			32.7			16.9			19.7	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.7	25.7		45.0	15.1	31.3		45.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	32.5	33.5		40.5	22.5	43.5		40.5				
Max Q Clear Time (g_c+I1), s	15.5	14.5		17.2	10.5	21.3		13.4				
Green Ext Time (p_c), s	0.7	3.4		2.8	0.3	5.5		0.6				

Intersection Summary

HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

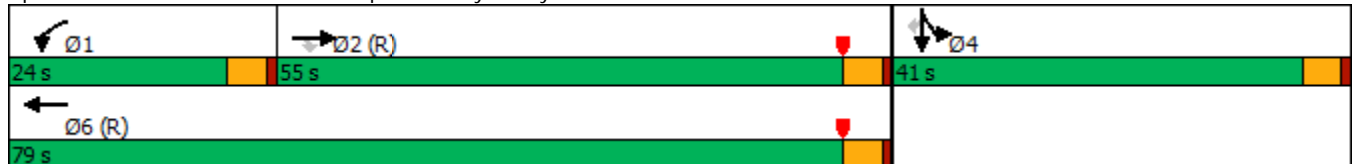
OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	695	219	247	453	0	0	0	0	476	0	728
Future Volume (vph)	0	695	219	247	453	0	0	0	0	476	0	728
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	145		0	0		0	0		345
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			90			90			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		450			641			982				791
Travel Time (s)		8.8			12.5			22.3				18.0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Shared Lane Traffic (%)												
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)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		55.0	55.0	24.0	79.0					41.0	41.0	41.0
Total Split (%)		45.8%	45.8%	20.0%	65.8%					34.2%	34.2%	34.2%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Min	C-Min	None	C-Min					Max	Max	Max

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	695	219	247	453	0	0	0	0	476	0	728
Future Volume (veh/h)	0	695	219	247	453	0	0	0	0	476	0	728
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	702	120	249	458	0				481	0	381
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	806	683	271	1161	0				542	0	482
Arrive On Green	0.00	0.43	0.43	0.30	1.00	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	702	120	249	458	0				481	0	381
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	41.0	5.6	16.2	0.0	0.0				30.9	0.0	26.4
Cycle Q Clear(g_c), s	0.0	41.0	5.6	16.2	0.0	0.0				30.9	0.0	26.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	806	683	271	1161	0				542	0	482
V/C Ratio(X)	0.00	0.87	0.18	0.92	0.39	0.00				0.89	0.00	0.79
Avail Cap(c_a), veh/h	0	806	683	289	1161	0				542	0	482
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.72	0.72	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.1	21.0	41.0	0.0	0.0				39.8	0.0	38.2
Incr Delay (d2), s/veh	0.0	12.4	0.6	24.8	0.7	0.0				19.1	0.0	12.4
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	20.6	2.2	7.7	0.2	0.0				16.2	0.0	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	43.5	21.6	65.8	0.7	0.0				58.9	0.0	50.7
LnGrp LOS	A	D	C	E	A	A				E	A	D
Approach Vol, veh/h		822			707						862	
Approach Delay, s/veh		40.3			23.6						55.2	
Approach LOS		D			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.8	56.2		41.0		79.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	19.5	50.5		36.5		74.5						
Max Q Clear Time (g_c+I1), s	18.2	43.0		32.9		2.0						
Green Ext Time (p_c), s	0.1	3.0		1.6		3.1						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			40.8									
HCM 6th LOS			D									

Lanes, Volumes, Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

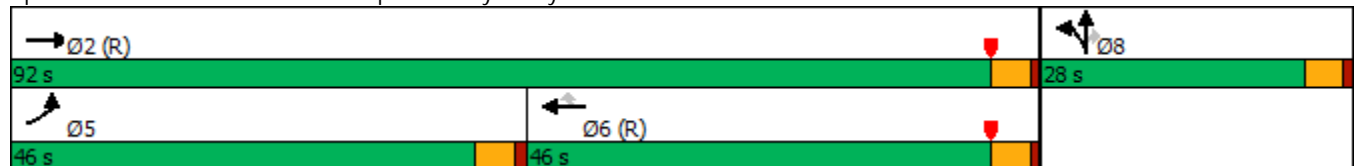
OY (2025) w/ Scenario 1 Project PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	454	717	0	0	468	417	229	8	278	0	0	0
Future Volume (vph)	454	717	0	0	468	417	229	8	278	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	285		0	0		0	0		130	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	90			90			120			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		641			240			619			885	
Travel Time (s)		12.5			4.7			14.1			20.1	
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
Shared Lane Traffic (%)												
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	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5	22.5			
Total Split (s)	46.0	92.0			46.0	46.0	28.0	28.0	28.0			
Total Split (%)	38.3%	76.7%			38.3%	38.3%	23.3%	23.3%	23.3%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



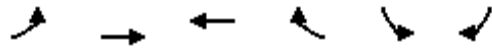
HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	454	717	0	0	468	417	229	8	278	0	0	0
Future Volume (veh/h)	454	717	0	0	468	417	229	8	278	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	478	755	0	0	493	228	241	8	188			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	499	1429	0	0	834	707	278	9	255			
Arrive On Green	0.56	1.00	0.00	0.00	0.15	0.15	0.16	0.16	0.16			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1727	57	1585			
Grp Volume(v), veh/h	478	755	0	0	493	228	249	0	188			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1784	0	1585			
Q Serve(g_s), s	30.5	0.0	0.0	0.0	29.5	15.5	16.3	0.0	13.5			
Cycle Q Clear(g_c), s	30.5	0.0	0.0	0.0	29.5	15.5	16.3	0.0	13.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	499	1429	0	0	834	707	287	0	255			
V/C Ratio(X)	0.96	0.53	0.00	0.00	0.59	0.32	0.87	0.00	0.74			
Avail Cap(c_a), veh/h	616	1429	0	0	834	707	349	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.26	0.26	0.00	0.00	0.93	0.93	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.7	0.0	0.0	0.0	40.9	34.9	49.1	0.0	47.9			
Incr Delay (d2), s/veh	9.2	0.4	0.0	0.0	2.9	1.1	17.3	0.0	7.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.0	0.1	0.0	0.0	15.5	6.8	8.6	0.0	5.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	0.4	0.0	0.0	43.8	36.1	66.4	0.0	55.0			
LnGrp LOS	C	A	A	A	D	D	E	A	E			
Approach Vol, veh/h		1233			721			437				
Approach Delay, s/veh		13.8			41.3			61.5				
Approach LOS		B			D			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		96.2			38.1	58.0		23.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		87.5			41.5	41.5		23.5				
Max Q Clear Time (g_c+I1), s		2.0			32.5	31.5		18.3				
Green Ext Time (p_c), s		6.4			1.1	2.8		1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					30.8							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
 WITH IMPROVEMENTS

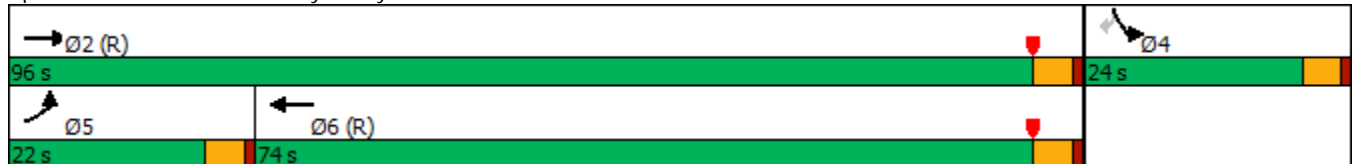


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↕↔		↖	↗
Traffic Volume (vph)	113	882	726	40	95	159
Future Volume (vph)	113	882	726	40	95	159
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	150
Storage Lanes	0			0	1	1
Taper Length (ft)	60				90	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	9.5	22.5	22.5		22.5	22.5
Total Split (s)	22.0	96.0	74.0		24.0	24.0
Total Split (%)	18.3%	80.0%	61.7%		20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
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)	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 1 Project PM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕	↑	↑↔		↕	↕
Traffic Volume (veh/h)	113	882	726	40	95	159
Future Volume (veh/h)	113	882	726	40	95	159
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	123	959	789	43	103	173
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	148	1426	2199	120	289	258
Arrive On Green	0.17	1.00	0.64	0.64	0.16	0.16
Sat Flow, veh/h	1781	1870	3520	187	1781	1585
Grp Volume(v), veh/h	123	959	409	423	103	173
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1837	1781	1585
Q Serve(g_s), s	8.0	0.0	12.9	12.9	6.2	12.3
Cycle Q Clear(g_c), s	8.0	0.0	12.9	12.9	6.2	12.3
Prop In Lane	1.00			0.10	1.00	1.00
Lane Grp Cap(c), veh/h	148	1426	1140	1179	289	258
V/C Ratio(X)	0.83	0.67	0.36	0.36	0.36	0.67
Avail Cap(c_a), veh/h	260	1426	1140	1179	289	258
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	10.0	10.0	44.7	47.2
Incr Delay (d2), s/veh	9.4	2.1	0.9	0.9	3.4	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.8	5.0	5.1	3.0	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.6	2.1	10.9	10.9	48.1	60.4
LnGrp LOS	E	A	B	B	D	E
Approach Vol, veh/h		1082	832		276	
Approach Delay, s/veh		8.5	10.9		55.8	
Approach LOS		A	B		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.0		24.0	14.5	81.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		91.5		19.5	17.5	69.5
Max Q Clear Time (g_c+I1), s		2.0		14.3	10.0	14.9
Green Ext Time (p_c), s		10.2		0.4	0.2	6.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			15.4			
HCM 6th LOS			B			

**APPENDIX 5.7: OPENING YEAR CUMULATIVE (2025) WITH PROJECT PA  
1, PARCEL HUBE WAREHOUSE & TRUCK/TRAILER LOT CONDITIONS  
WITH IMPROVEMENTS INTERSECTION ANALYSIS WORKSHEETS**



This Page Intentionally Left Blank

Lanes, Volumes, Timings  
1: Singleton Rd. & I-10 EB Ramps

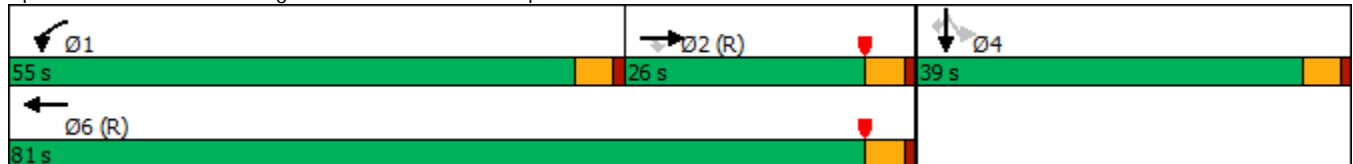
OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	112	41	427	156	0	0	0	0	283	0	209
Future Volume (vph)	0	112	41	427	156	0	0	0	0	283	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	70		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			60			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1255			647			1041			468	
Travel Time (s)		28.5			14.7			23.7			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		26.0	26.0	55.0	81.0					39.0	39.0	39.0
Total Split (%)		21.7%	21.7%	45.8%	67.5%					32.5%	32.5%	32.5%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	112	41	427	156	0	0	0	0	283	0	209
Future Volume (veh/h)	0	112	41	427	156	0	0	0	0	283	0	209
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	123	45	469	171	0				311	0	230
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	600	508	498	1192	0				512	0	456
Arrive On Green	0.00	0.32	0.32	0.47	1.00	0.00				0.29	0.00	0.29
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	123	45	469	171	0				311	0	230
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	5.7	2.4	30.1	0.0	0.0				18.1	0.0	14.5
Cycle Q Clear(g_c), s	0.0	5.7	2.4	30.1	0.0	0.0				18.1	0.0	14.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	600	508	498	1192	0				512	0	456
V/C Ratio(X)	0.00	0.21	0.09	0.94	0.14	0.00				0.61	0.00	0.50
Avail Cap(c_a), veh/h	0	600	508	750	1192	0				512	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.6	28.5	31.1	0.0	0.0				36.9	0.0	35.6
Incr Delay (d2), s/veh	0.0	0.8	0.3	14.6	0.2	0.0				5.3	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	2.7	1.0	12.9	0.1	0.0				8.6	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.4	28.8	45.7	0.2	0.0				42.2	0.0	39.6
LnGrp LOS	A	C	C	D	A	A				D	A	D
Approach Vol, veh/h		168			640						541	
Approach Delay, s/veh		30.0			33.5						41.1	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	38.0	43.0		39.0		81.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	50.5	21.5		34.5		76.5						
Max Q Clear Time (g_c+I1), s	32.1	7.7		20.1		2.0						
Green Ext Time (p_c), s	1.4	0.6		2.4		1.1						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				36.1								
HCM 6th LOS				D								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Lanes, Volumes, Timings  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	323	0	0	471	483	111	0	286	0	0	0
Future Volume (vph)	72	323	0	0	471	483	111	0	286	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70		0	0		200	200		50	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	60			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30				30
Link Distance (ft)		647			547			1033				503
Travel Time (s)		14.7			12.4			23.5				11.4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			71.0	71.0	30.0	30.0	30.0			
Total Split (s)	16.3	90.0			73.7	73.7	30.0	30.0	30.0			
Total Split (%)	13.6%	75.0%			61.4%	61.4%	25.0%	25.0%	25.0%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	323	0	0	471	483	111	0	286	0	0	0
Future Volume (veh/h)	72	323	0	0	471	483	111	0	286	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	77	347	0	0	506	519	119	0	308			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	97	1340	0	0	1167	989	372	0	331			
Arrive On Green	0.11	1.00	0.00	0.00	0.92	0.92	0.21	0.00	0.21			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	77	347	0	0	506	519	119	0	308			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	5.1	0.0	0.0	0.0	4.1	5.8	6.8	0.0	22.9			
Cycle Q Clear(g_c), s	5.1	0.0	0.0	0.0	4.1	5.8	6.8	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	97	1340	0	0	1167	989	372	0	331			
V/C Ratio(X)	0.79	0.26	0.00	0.00	0.43	0.52	0.32	0.00	0.93			
Avail Cap(c_a), veh/h	175	1340	0	0	1167	989	379	0	337			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.48	1.48	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	0.36	0.36	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.8	0.0	0.0	0.0	1.9	1.9	40.3	0.0	46.6			
Incr Delay (d2), s/veh	13.0	0.5	0.0	0.0	0.4	0.7	0.5	0.0	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			
%ile BackOfQ(50%),veh/ln	2.5	0.2	0.0	0.0	1.2	1.3	3.0	0.0	11.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	0.5	0.0	0.0	2.3	2.7	40.8	0.0	78.3			
LnGrp LOS	E	A	A	A	A	A	D	A	E			
Approach Vol, veh/h		424			1025			427				
Approach Delay, s/veh		12.3			2.5			67.8				
Approach LOS		B			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		90.5			11.1	79.4		29.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		85.5			11.8	69.2		25.5				
Max Q Clear Time (g_c+I1), s		2.0			7.1	7.8		24.9				
Green Ext Time (p_c), s		2.4			0.1	6.3		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					19.6							
HCM 6th LOS					B							

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

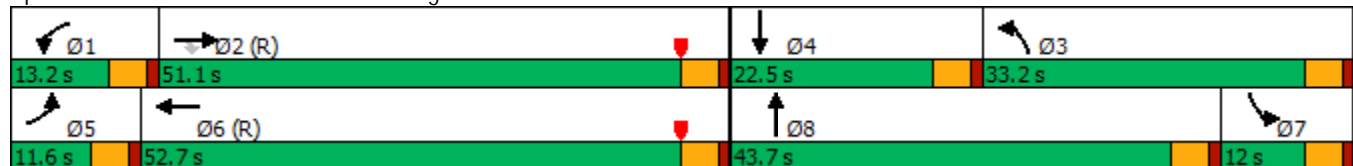
OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	196	335	44	447	176	367	263	155	64	41	141
Future Volume (vph)	77	196	335	44	447	176	367	263	155	64	41	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		547			300			993			1412	
Travel Time (s)		12.4			6.8			22.6			32.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	2	1	6		3	8		7	4	
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)	9.5	22.5	22.5	9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	11.6	51.1	51.1	13.2	52.7		33.2	43.7		12.0	22.5	
Total Split (%)	9.7%	42.6%	42.6%	11.0%	43.9%		27.7%	36.4%		10.0%	18.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	

Intersection Summary























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	196	335	44	447	176	367	263	155	64	41	141
Future Volume (veh/h)	77	196	335	44	447	176	367	263	155	64	41	141
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	83	211	360	47	481	189	395	283	167	69	44	152
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	833	706	61	538	211	419	308	182	162	50	172
Arrive On Green	0.10	0.74	0.74	0.03	0.42	0.42	0.24	0.28	0.28	0.09	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	1781	1278	502	1781	1103	651	1781	368	1273
Grp Volume(v), veh/h	83	211	360	47	0	670	395	0	450	69	0	196
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1780	1781	0	1753	1781	0	1641
Q Serve(g_s), s	5.5	4.3	5.0	3.1	0.0	42.0	26.1	0.0	29.8	4.4	0.0	14.1
Cycle Q Clear(g_c), s	5.5	4.3	5.0	3.1	0.0	42.0	26.1	0.0	29.8	4.4	0.0	14.1
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.37	1.00		0.78
Lane Grp Cap(c), veh/h	104	833	706	61	0	749	419	0	490	162	0	222
V/C Ratio(X)	0.80	0.25	0.51	0.78	0.00	0.89	0.94	0.00	0.92	0.42	0.00	0.88
Avail Cap(c_a), veh/h	105	833	706	129	0	749	426	0	573	162	0	246
HCM Platoon Ratio	1.67	1.67	1.67	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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.5	9.1	1.9	57.5	0.0	32.3	45.1	0.0	41.9	51.6	0.0	50.9
Incr Delay (d2), s/veh	30.8	0.7	2.4	18.7	0.0	15.4	29.3	0.0	18.3	1.8	0.0	27.1
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	1.8	3.2	1.7	0.0	20.9	14.9	0.0	15.3	2.0	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.2	9.7	4.3	76.2	0.0	47.7	74.3	0.0	60.1	53.3	0.0	78.0
LnGrp LOS	F	A	A	E	A	D	E	A	E	D	A	E
Approach Vol, veh/h		654			717			845			265	
Approach Delay, s/veh		16.2			49.5			66.8			71.6	
Approach LOS		B			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	57.9	32.7	20.8	11.5	55.0	15.4	38.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.7	46.6	28.7	18.0	7.1	48.2	7.5	39.2				
Max Q Clear Time (g_c+I1), s	5.1	7.0	28.1	16.1	7.5	44.0	6.4	31.8				
Green Ext Time (p_c), s	0.0	2.7	0.1	0.2	0.0	1.8	0.0	1.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.0									
HCM 6th LOS			D									

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

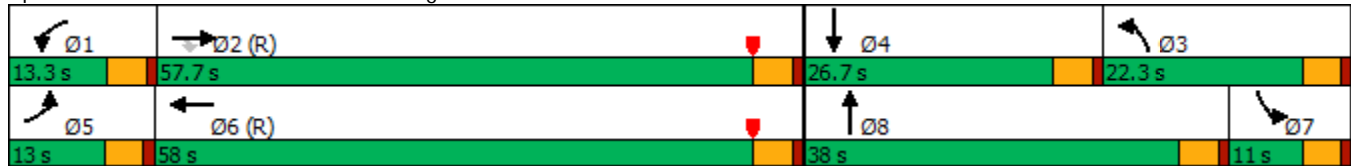
OY (2025) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	196	335	44	447	176	367	263	155	64	41	141
Future Volume (vph)	77	196	335	44	447	176	367	263	155	64	41	141
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		547			300			993			1412	
Travel Time (s)		12.4			6.8			22.6			32.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	2	1	6		3	8		7	4	
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)	9.5	22.5	22.5	9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	13.0	57.7	57.7	13.3	58.0		22.3	38.0		11.0	26.7	
Total Split (%)	10.8%	48.1%	48.1%	11.1%	48.3%		18.6%	31.7%		9.2%	22.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated























Splits and Phases: 3: Calimesa Bl. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	196	335	44	447	176	367	263	155	64	41	141
Future Volume (veh/h)	77	196	335	44	447	176	367	263	155	64	41	141
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	83	211	360	47	481	189	395	283	167	69	44	152
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	926	785	61	601	236	632	299	177	88	51	176
Arrive On Green	0.10	0.83	0.83	0.03	0.47	0.47	0.18	0.27	0.27	0.05	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	1781	1278	502	3456	1103	651	1781	368	1273
Grp Volume(v), veh/h	83	211	360	47	0	670	395	0	450	69	0	196
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1780	1728	0	1753	1781	0	1641
Q Serve(g_s), s	5.5	2.9	3.7	3.1	0.0	38.3	12.7	0.0	30.2	4.6	0.0	14.0
Cycle Q Clear(g_c), s	5.5	2.9	3.7	3.1	0.0	38.3	12.7	0.0	30.2	4.6	0.0	14.0
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.37	1.00		0.78
Lane Grp Cap(c), veh/h	104	926	785	61	0	838	632	0	476	88	0	226
V/C Ratio(X)	0.80	0.23	0.46	0.78	0.00	0.80	0.62	0.00	0.95	0.78	0.00	0.87
Avail Cap(c_a), veh/h	126	926	785	131	0	838	632	0	489	96	0	304
HCM Platoon Ratio	1.67	1.67	1.67	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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.4	5.5	1.4	57.5	0.0	27.0	45.2	0.0	42.8	56.4	0.0	50.6
Incr Delay (d2), s/veh	22.7	0.5	1.7	18.7	0.0	7.9	1.9	0.0	27.2	31.0	0.0	17.6
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	1.2	2.2	1.7	0.0	17.7	5.6	0.0	16.6	2.8	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	6.0	3.2	76.2	0.0	34.9	47.2	0.0	70.0	87.4	0.0	68.2
LnGrp LOS	E	A	A	E	A	C	D	A	E	F	A	E
Approach Vol, veh/h		654			717			845				265
Approach Delay, s/veh		13.3			37.6			59.3				73.2
Approach LOS		B			D			E				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	63.9	26.5	21.1	11.5	61.0	10.4	37.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.8	53.2	17.8	22.2	8.5	53.5	6.5	33.5				
Max Q Clear Time (g_c+I1), s	5.1	5.7	14.7	16.0	7.5	40.3	6.6	32.2				
Green Ext Time (p_c), s	0.0	2.7	0.5	0.5	0.0	4.0	0.0	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			42.4									
HCM 6th LOS			D									

Lanes, Volumes, Timings  
4: Beckwith Av. & Singleton Rd.

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	403	12	3	646	21	2
Future Volume (vph)	403	12	3	646	21	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	30			30	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	9.3			38.7	7.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	403	12	3	646	21	2
Future Vol, veh/h	403	12	3	646	21	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	411	12	3	659	21	2























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	423	0	1082
Stage 1	-	-	-	-	417
Stage 2	-	-	-	-	665
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1136	-	241
Stage 1	-	-	-	-	665
Stage 2	-	-	-	-	511
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1136	-	240
Mov Cap-2 Maneuver	-	-	-	-	240
Stage 1	-	-	-	-	665
Stage 2	-	-	-	-	509

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	254	-	-	1136	-
HCM Lane V/C Ratio	0.092	-	-	0.003	-
HCM Control Delay (s)	20.6	-	-	8.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Lanes, Volumes, Timings  
 5: Singleton Cyn. Rd. & Singleton Rd.

OY (2025) w/ Scenario 2 AM Peak Hour  
 WITH IMPROVEMENTS

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	34	366	4	1	513	13	7	1	1	21	1	108
Future Volume (vph)	34	366	4	1	513	13	7	1	1	21	1	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		17.5			16.6			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕		↕↗	↕
Traffic Vol, veh/h	34	366	4	1	513	13	7	1	1	21	1	108
Future Vol, veh/h	34	366	4	1	513	13	7	1	1	21	1	108
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	385	4	1	540	14	7	1	1	22	1	114
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	12.9	15.7	10.9	11
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	88%	0%	100%	0%	0%	100%	0%	0%	95%	0%
Vol Thru, %	12%	0%	0%	100%	97%	0%	100%	93%	5%	0%
Vol Right, %	0%	100%	0%	0%	3%	0%	0%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	1	34	244	126	1	342	184	22	108
LT Vol	7	0	34	0	0	1	0	0	21	0
Through Vol	1	0	0	244	122	0	342	171	1	0
RT Vol	0	1	0	0	4	0	0	13	0	108
Lane Flow Rate	8	1	36	257	133	1	360	194	23	114
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.019	0.002	0.068	0.451	0.232	0.002	0.609	0.325	0.049	0.206
Departure Headway (Hd)	8.042	6.897	6.822	6.318	6.296	6.59	6.086	6.036	7.69	6.51
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	443	516	524	570	569	543	594	595	465	549
Service Time	5.821	4.675	4.572	4.068	4.046	4.335	3.832	3.782	5.454	4.273
HCM Lane V/C Ratio	0.018	0.002	0.069	0.451	0.234	0.002	0.606	0.326	0.049	0.208
HCM Control Delay	11	9.7	10.1	14.2	11	9.3	17.9	11.7	10.9	11
HCM Lane LOS	B	A	B	B	B	A	C	B	B	B
HCM 95th-tile Q	0.1	0	0.2	2.3	0.9	0	4.1	1.4	0.2	0.8

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

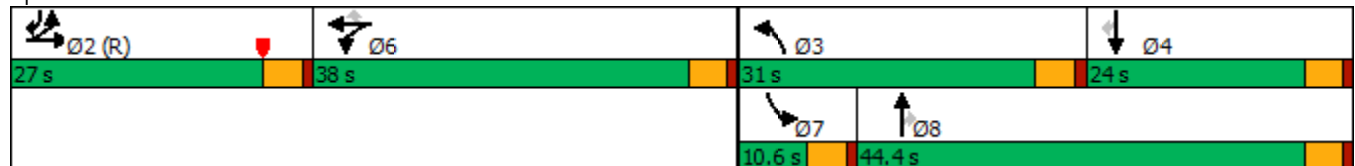
OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	181	42	17	318	20	223	480	162	23	163	313
Future Volume (vph)	136	181	42	17	318	20	223	480	162	23	163	313
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			14.4			5.7			14.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)	13%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.0	27.0		38.0	38.0	38.0	31.0	44.4	44.4	10.6	24.0	27.0
Total Split (%)	22.5%	22.5%		31.7%	31.7%	31.7%	25.8%	37.0%	37.0%	8.8%	20.0%	22.5%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max

Intersection Summary
























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	181	42	17	318	20	223	480	162	23	163	313
Future Volume (veh/h)	136	181	42	17	318	20	223	480	162	23	163	313
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	240	49	20	374	24	262	565	191	27	192	368
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	480	815	163	398	418	354	293	1182	527	44	361	733
Arrive On Green	0.27	0.27	0.27	0.22	0.22	0.22	0.16	0.33	0.33	0.02	0.19	0.19
Sat Flow, veh/h	1781	3025	607	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	141	147	142	20	374	24	262	565	191	27	192	368
Grp Sat Flow(s),veh/h/ln	1781	1870	1761	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	7.5	7.5	7.7	1.1	23.3	1.4	17.3	15.1	11.0	1.8	11.1	19.5
Cycle Q Clear(g_c), s	7.5	7.5	7.7	1.1	23.3	1.4	17.3	15.1	11.0	1.8	11.1	19.5
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	480	504	474	398	418	354	293	1182	527	44	361	733
V/C Ratio(X)	0.29	0.29	0.30	0.05	0.90	0.07	0.89	0.48	0.36	0.61	0.53	0.50
Avail Cap(c_a), veh/h	480	504	474	497	522	442	393	1182	527	91	361	733
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	34.8	34.8	34.8	36.6	45.2	36.7	49.1	31.8	30.4	57.9	43.6	22.6
Incr Delay (d2), s/veh	1.6	1.5	1.6	0.1	15.4	0.1	18.0	1.4	1.9	13.0	5.5	2.5
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	3.5	3.6	3.5	0.5	12.5	0.6	9.1	6.7	4.4	1.0	5.6	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	36.2	36.5	36.7	60.6	36.8	67.1	33.2	32.3	71.0	49.1	25.0
LnGrp LOS	D	D	D	D	E	D	E	C	C	E	D	C
Approach Vol, veh/h		430			418			1018			587	
Approach Delay, s/veh		36.3			58.1			41.8			35.0	
Approach LOS		D			E			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.8	24.2	27.6		31.3	7.5	44.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.5	26.5	19.5		33.5	6.1	39.9				
Max Q Clear Time (g_c+I1), s		9.7	19.3	21.5		25.3	3.8	17.1				
Green Ext Time (p_c), s		1.7	0.4	0.0		1.5	0.0	4.4				

Intersection Summary

HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

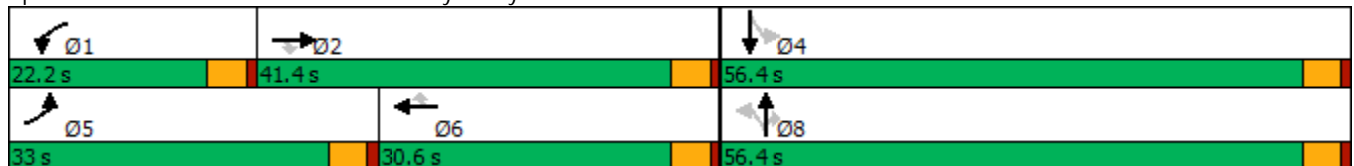
OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	435	21	127	390	338	12	23	121	468	21	221
Future Volume (vph)	306	435	21	127	390	338	12	23	121	468	21	221
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		50	100		100	150		0
Storage Lanes	1		1	1		1	0		0	1		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	33.0	41.4	41.4	22.2	30.6	30.6	56.4	56.4	56.4	56.4	56.4	56.4
Total Split (%)	27.5%	34.5%	34.5%	18.5%	25.5%	25.5%	47.0%	47.0%	47.0%	47.0%	47.0%	47.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 111.4  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	435	21	127	390	338	12	23	121	468	21	221
Future Volume (veh/h)	306	435	21	127	390	338	12	23	121	468	21	221
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	336	478	23	140	429	371	13	25	133	514	23	243
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	1200	535	169	805	359	442	842	714	606	63	661
Arrive On Green	0.21	0.34	0.34	0.09	0.23	0.23	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1113	1870	1585	1228	139	1467
Grp Volume(v), veh/h	336	478	23	140	429	371	13	25	133	514	0	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1113	1870	1585	1228	0	1606
Q Serve(g_s), s	21.3	11.9	1.1	8.9	12.2	26.1	0.9	0.9	5.8	46.2	0.0	12.6
Cycle Q Clear(g_c), s	21.3	11.9	1.1	8.9	12.2	26.1	13.5	0.9	5.8	47.1	0.0	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Lane Grp Cap(c), veh/h	367	1200	535	169	805	359	442	842	714	606	0	723
V/C Ratio(X)	0.91	0.40	0.04	0.83	0.53	1.03	0.03	0.03	0.19	0.85	0.00	0.37
Avail Cap(c_a), veh/h	440	1200	535	274	805	359	442	842	714	606	0	723
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	44.8	29.2	25.7	51.2	39.2	44.6	25.3	17.7	19.0	30.8	0.0	20.9
Incr Delay (d2), s/veh	21.3	0.2	0.0	10.5	0.7	56.5	0.1	0.1	0.6	13.7	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	5.0	0.4	4.4	5.4	15.7	0.3	0.4	2.2	15.5	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	29.4	25.7	61.8	39.9	101.1	25.4	17.7	19.6	44.5	0.0	22.3
LnGrp LOS	E	C	C	E	D	F	C	B	B	D	A	C
Approach Vol, veh/h		837			940			171			780	
Approach Delay, s/veh		44.0			67.3			19.8			36.9	
Approach LOS		D			E			B			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.4	43.4		56.4	28.3	30.6		56.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	17.7	36.9		51.9	28.5	26.1		51.9				
Max Q Clear Time (g_c+I1), s	10.9	13.9		49.1	23.3	28.1		15.5				
Green Ext Time (p_c), s	0.2	3.2		1.1	0.5	0.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 2 AM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↖	↗
Traffic Volume (vph)	0	827	197	301	439	0	0	0	0	291	0	415
Future Volume (vph)	0	827	197	301	439	0	0	0	0	291	0	415
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	145		0	0		0	0		345
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			90			90			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		450			641			982				791
Travel Time (s)		8.8			12.5			22.3				18.0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
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)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		65.0	65.0	28.0	93.0					27.0	27.0	27.0
Total Split (%)		54.2%	54.2%	23.3%	77.5%					22.5%	22.5%	22.5%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Min	C-Min	None	C-Min					Max	Max	Max

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 11.7 (10%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 2 AM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	827	197	301	439	0	0	0	0	291	0	415
Future Volume (veh/h)	0	827	197	301	439	0	0	0	0	291	0	415
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	889	104	324	472	0				313	0	231
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	949	804	343	1379	0				334	0	297
Arrive On Green	0.00	0.51	0.51	0.39	1.00	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	889	104	324	472	0				313	0	231
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	53.6	4.2	21.1	0.0	0.0				20.8	0.0	16.6
Cycle Q Clear(g_c), s	0.0	53.6	4.2	21.1	0.0	0.0				20.8	0.0	16.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	949	804	343	1379	0				334	0	297
V/C Ratio(X)	0.00	0.94	0.13	0.94	0.34	0.00				0.94	0.00	0.78
Avail Cap(c_a), veh/h	0	949	804	349	1379	0				334	0	297
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.30	0.30	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.8	15.6	36.2	0.0	0.0				48.1	0.0	46.4
Incr Delay (d2), s/veh	0.0	17.5	0.3	14.8	0.2	0.0				35.6	0.0	17.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	27.2	1.6	8.7	0.1	0.0				12.5	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	45.2	15.9	51.0	0.2	0.0				83.6	0.0	64.3
LnGrp LOS	A	D	B	D	A	A				F	A	E
Approach Vol, veh/h		993			796						544	
Approach Delay, s/veh		42.2			20.9						75.4	
Approach LOS		D			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	27.6	65.4		27.0		93.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	23.5	60.5		22.5		88.5						
Max Q Clear Time (g_c+I1), s	23.1	55.6		22.8		2.0						
Green Ext Time (p_c), s	0.0	2.8		0.0		3.3						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				42.7								
HCM 6th LOS				D								

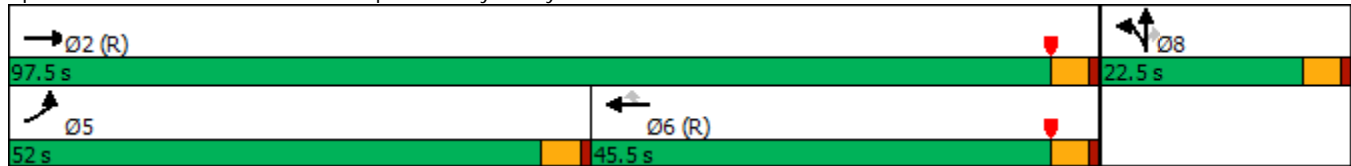
Lanes, Volumes, Timings  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 2 AM Peak Hour  
 WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	626	490	0	0	556	549	185	11	400	0	0	0
Future Volume (vph)	626	490	0	0	556	549	185	11	400	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	285		0	0		0	0		130	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	90			90			120			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		641			240			619			885	
Travel Time (s)		12.5			4.7			14.1			20.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
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	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	22.5	22.5			22.5	22.5	22.5	22.5	22.5			
Total Split (s)	52.0	97.5			45.5	45.5	22.5	22.5	22.5			
Total Split (%)	43.3%	81.3%			37.9%	37.9%	18.8%	18.8%	18.8%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			



















**Intersection Summary**  
 Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



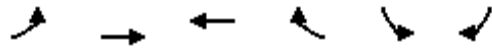
HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 2 AM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	626	490	0	0	556	549	185	11	400	0	0	0
Future Volume (veh/h)	626	490	0	0	556	549	185	11	400	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	673	527	0	0	598	321	199	12	269			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	687	1450	0	0	658	558	253	15	238			
Arrive On Green	0.64	1.00	0.00	0.00	0.70	0.70	0.15	0.15	0.15			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1685	102	1585			
Grp Volume(v), veh/h	673	527	0	0	598	321	211	0	269			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1786	0	1585			
Q Serve(g_s), s	43.7	0.0	0.0	0.0	31.5	12.1	13.7	0.0	18.0			
Cycle Q Clear(g_c), s	43.7	0.0	0.0	0.0	31.5	12.1	13.7	0.0	18.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	687	1450	0	0	658	558	268	0	238			
V/C Ratio(X)	0.98	0.36	0.00	0.00	0.91	0.58	0.79	0.00	1.13			
Avail Cap(c_a), veh/h	705	1450	0	0	658	558	268	0	238			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.19	0.19	0.00	0.00	0.46	0.46	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.9	0.0	0.0	0.0	16.2	13.3	49.2	0.0	51.0			
Incr Delay (d2), s/veh	10.5	0.1	0.0	0.0	10.0	2.0	14.4	0.0	98.3			
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	14.2	0.1	0.0	0.0	7.9	3.3	7.2	0.0	13.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	0.1	0.0	0.0	26.2	15.3	63.6	0.0	149.3			
LnGrp LOS	C	A	A	A	C	B	E	A	F			
Approach Vol, veh/h		1200			919			480				
Approach Delay, s/veh		17.7			22.4			111.6				
Approach LOS		B			C			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		97.5			50.8	46.7		22.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		93.0			47.5	41.0		18.0				
Max Q Clear Time (g_c+I1), s		2.0			45.7	33.5		20.0				
Green Ext Time (p_c), s		3.8			0.5	3.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					36.7							
HCM 6th LOS					D							

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 2 AM Peak Hour  
 WITH IMPROVEMENTS

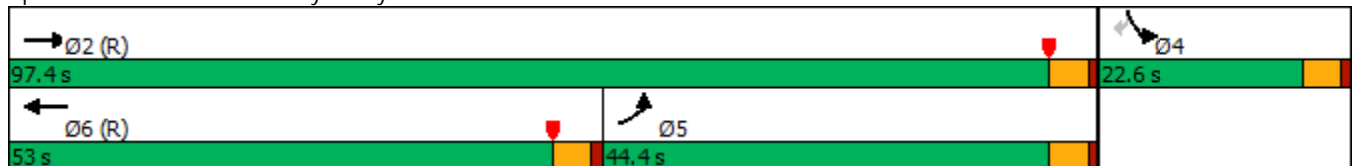


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	421	468	911	153	58	193
Future Volume (vph)	421	468	911	153	58	193
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	150
Storage Lanes	0			0	1	1
Taper Length (ft)	60				90	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	9.5	22.5	22.5		22.5	22.5
Total Split (s)	44.4	97.4	53.0		22.6	22.6
Total Split (%)	37.0%	81.2%	44.2%		18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
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)	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 2 AM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↗	↑	↑↑		↖	↖
Traffic Volume (veh/h)	421	468	911	153	58	193
Future Volume (veh/h)	421	468	911	153	58	193
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	490	544	1059	178	67	224
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	592	1448	1231	206	269	239
Arrive On Green	0.67	1.00	0.40	0.40	0.15	0.15
Sat Flow, veh/h	1781	1870	3138	511	1781	1585
Grp Volume(v), veh/h	490	544	617	620	67	224
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1778	1781	1585
Q Serve(g_s), s	24.6	0.0	38.0	38.3	4.0	16.8
Cycle Q Clear(g_c), s	24.6	0.0	38.0	38.3	4.0	16.8
Prop In Lane	1.00			0.29	1.00	1.00
Lane Grp Cap(c), veh/h	592	1448	718	719	269	239
V/C Ratio(X)	0.83	0.38	0.86	0.86	0.25	0.94
Avail Cap(c_a), veh/h	592	1448	718	719	269	239
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	0.0	32.6	32.7	45.0	50.4
Incr Delay (d2), s/veh	8.2	0.6	12.7	13.0	2.2	43.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.3	18.4	18.5	1.9	16.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.7	0.6	45.4	45.7	47.2	94.3
LnGrp LOS	C	A	D	D	D	F
Approach Vol, veh/h		1034	1237		291	
Approach Delay, s/veh		12.5	45.5		83.4	
Approach LOS		B	D		F	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	44.4	53.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	39.9	48.5
Max Q Clear Time (g_c+I1), s		2.0		18.8	26.6	40.3
Green Ext Time (p_c), s		3.9		0.0	1.4	4.8
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			36.5			
HCM 6th LOS			D			

Lanes, Volumes, Timings  
1: Singleton Rd. & I-10 EB Ramps

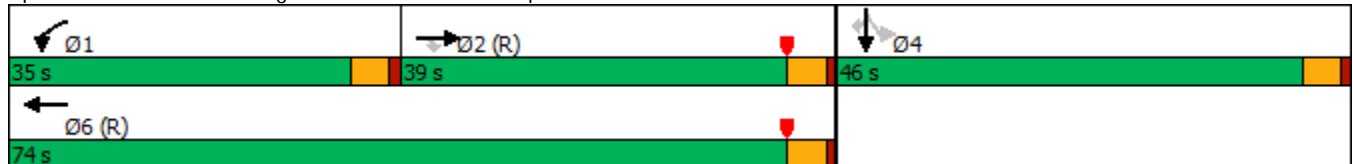
OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	295	141	251	109	0	0	0	0	395	0	122
Future Volume (vph)	0	295	141	251	109	0	0	0	0	395	0	122
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	70		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			60			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1255			647			1041			468	
Travel Time (s)		28.5			14.7			23.7			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		39.0	39.0	35.0	74.0					46.0	46.0	46.0
Total Split (%)		32.5%	32.5%	29.2%	61.7%					38.3%	38.3%	38.3%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated



















Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps





HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	295	141	251	109	0	0	0	0	395	0	122
Future Volume (veh/h)	0	295	141	251	109	0	0	0	0	395	0	122
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	324	155	276	120	0				434	0	134
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	693	588	305	1083	0				616	0	548
Arrive On Green	0.00	0.37	0.37	0.29	0.97	0.00				0.35	0.00	0.35
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	324	155	276	120	0				434	0	134
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	15.8	8.2	17.9	0.3	0.0				25.3	0.0	7.2
Cycle Q Clear(g_c), s	0.0	15.8	8.2	17.9	0.3	0.0				25.3	0.0	7.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	693	588	305	1083	0				616	0	548
V/C Ratio(X)	0.00	0.47	0.26	0.91	0.11	0.00				0.70	0.00	0.24
Avail Cap(c_a), veh/h	0	693	588	453	1083	0				616	0	548
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.7	26.3	41.9	0.8	0.0				33.9	0.0	28.0
Incr Delay (d2), s/veh	0.0	2.1	1.0	15.5	0.2	0.0				6.6	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
%ile BackOfQ(50%),veh/ln	0.0	7.5	3.3	8.4	0.2	0.0				12.0	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.9	27.4	57.5	1.0	0.0				40.6	0.0	29.1
LnGrp LOS	A	C	C	E	A	A				D	A	C
Approach Vol, veh/h		479			396						568	
Approach Delay, s/veh		29.8			40.4						37.9	
Approach LOS		C			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.0	49.0		46.0		74.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	30.5	34.5		41.5		69.5						
Max Q Clear Time (g_c+I1), s	19.9	17.8		27.3		2.3						
Green Ext Time (p_c), s	0.6	2.3		2.8		0.7						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				35.9								
HCM 6th LOS				D								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Lanes, Volumes, Timings  
2: Singleton Rd. & I-10 WB Ramps

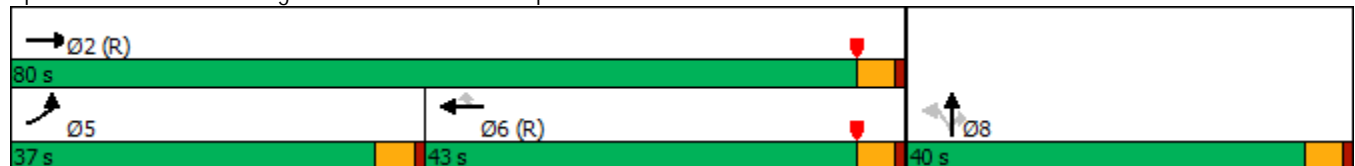
OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	450	0	0	298	355	63	0	398	0	0	0
Future Volume (vph)	240	450	0	0	298	355	63	0	398	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70		0	0		200	200		50	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	60			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		647			547			1033			503	
Travel Time (s)		14.7			12.4			23.5			11.4	
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5	22.5			
Total Split (s)	37.0	80.0			43.0	43.0	40.0	40.0	40.0			
Total Split (%)	30.8%	66.7%			35.8%	35.8%	33.3%	33.3%	33.3%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	450	0	0	298	355	63	0	398	0	0	0
Future Volume (veh/h)	240	450	0	0	298	355	63	0	398	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	261	489	0	0	324	386	68	0	433			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	289	1193	0	0	820	695	512	0	455			
Arrive On Green	0.32	1.00	0.00	0.00	0.57	0.57	0.29	0.00	0.29			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	261	489	0	0	324	386	68	0	433			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	16.8	0.0	0.0	0.0	11.5	18.4	3.4	0.0	32.1			
Cycle Q Clear(g_c), s	16.8	0.0	0.0	0.0	11.5	18.4	3.4	0.0	32.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	289	1193	0	0	820	695	512	0	455			
V/C Ratio(X)	0.90	0.41	0.00	0.00	0.40	0.56	0.13	0.00	0.95			
Avail Cap(c_a), veh/h	482	1193	0	0	820	695	527	0	469			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.30	1.30	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	0.77	0.77	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.7	0.0	0.0	0.0	17.0	18.5	31.7	0.0	41.9			
Incr Delay (d2), s/veh	11.2	0.9	0.0	0.0	1.1	2.5	0.1	0.0	29.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.1	0.3	0.0	0.0	4.8	6.5	1.5	0.0	16.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	0.9	0.0	0.0	18.1	20.9	31.8	0.0	71.0			
LnGrp LOS	D	A	A	A	B	C	C	A	E			
Approach Vol, veh/h		750			710			501				
Approach Delay, s/veh		18.3			19.6			65.7				
Approach LOS		B			B			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		81.0			23.9	57.1		39.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		75.5			32.5	38.5		35.5				
Max Q Clear Time (g_c+I1), s		2.0			18.8	20.4		34.1				
Green Ext Time (p_c), s		3.6			0.6	3.2		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					30.9							
HCM 6th LOS					C							

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

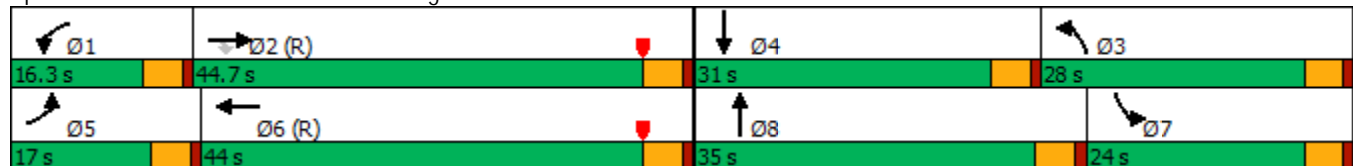
OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	319	439	74	305	72	211	59	29	159	130	137
Future Volume (vph)	91	319	439	74	305	72	211	59	29	159	130	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30				30
Link Distance (ft)		547			300			993				1412
Travel Time (s)		12.4			6.8			22.6				32.1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	2	1	6		3	8		7	4	
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)	9.5	22.5	22.5	9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	17.0	44.7	44.7	16.3	44.0		28.0	35.0		24.0	31.0	
Total Split (%)	14.2%	37.3%	37.3%	13.6%	36.7%		23.3%	29.2%		20.0%	25.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	

Intersection Summary























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	319	439	74	305	72	211	59	29	159	130	137
Future Volume (veh/h)	91	319	439	74	305	72	211	59	29	159	130	137
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	94	329	453	76	314	74	218	61	30	164	134	141
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	890	755	97	680	160	248	99	49	420	150	158
Arrive On Green	0.11	0.80	0.80	0.05	0.46	0.46	0.14	0.08	0.08	0.24	0.18	0.18
Sat Flow, veh/h	1781	1870	1585	1781	1463	345	1781	1184	582	1781	834	878
Grp Volume(v), veh/h	94	329	453	76	0	388	218	0	91	164	0	275
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1808	1781	0	1766	1781	0	1712
Q Serve(g_s), s	6.2	6.1	7.9	5.1	0.0	17.5	14.4	0.0	6.0	9.3	0.0	18.8
Cycle Q Clear(g_c), s	6.2	6.1	7.9	5.1	0.0	17.5	14.4	0.0	6.0	9.3	0.0	18.8
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.33	1.00		0.51
Lane Grp Cap(c), veh/h	117	890	755	97	0	841	248	0	147	420	0	308
V/C Ratio(X)	0.80	0.37	0.60	0.78	0.00	0.46	0.88	0.00	0.62	0.39	0.00	0.89
Avail Cap(c_a), veh/h	186	890	755	175	0	841	349	0	449	420	0	378
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.7	7.1	2.7	56.0	0.0	21.9	50.6	0.0	53.2	38.6	0.0	48.1
Incr Delay (d2), s/veh	10.4	1.0	2.9	12.7	0.0	1.8	16.5	0.0	4.2	0.6	0.0	19.7
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	3.0	2.3	3.3	2.6	0.0	7.8	7.5	0.0	2.8	4.1	0.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	8.0	5.6	68.8	0.0	23.7	67.1	0.0	57.3	39.2	0.0	67.8
LnGrp LOS	E	A	A	E	A	C	E	A	E	D	A	E
Approach Vol, veh/h		876			464			309				439
Approach Delay, s/veh		12.7			31.1			64.2				57.1
Approach LOS		B			C			E				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	61.6	21.2	26.1	12.4	60.3	32.8	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.8	40.2	23.5	26.5	12.5	39.5	19.5	30.5				
Max Q Clear Time (g_c+I1), s	7.1	9.9	16.4	20.8	8.2	19.5	11.3	8.0				
Green Ext Time (p_c), s	0.1	4.0	0.3	0.8	0.1	2.4	0.3	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			33.7									
HCM 6th LOS			C									

Lanes, Volumes, Timings  
3: Calimesa Bl. & Singleton Rd.

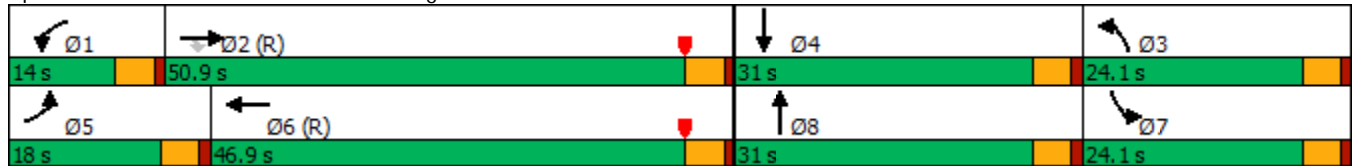
OY (2025) w/ Scenario 2 Project PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	319	129	54	305	72	159	56	26	159	110	137
Future Volume (vph)	91	319	129	54	305	72	159	56	26	159	110	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	150		50	150		50	150		50
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		547			300			993			1412	
Travel Time (s)		12.4			6.8			22.6			32.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	2	1	6		3	8		7	4	
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)	9.5	22.5	22.5	9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	18.0	50.9	50.9	14.0	46.9		24.1	31.0		24.1	31.0	
Total Split (%)	15.0%	42.4%	42.4%	11.7%	39.1%		20.1%	25.8%		20.1%	25.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
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)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

OY (2025) w/ Scenario 2 Project PM Peak Hour  
With Additional Improvements (Scenario 2)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	319	129	54	305	72	159	56	26	159	110	137
Future Volume (veh/h)	91	319	129	54	305	72	159	56	26	159	110	137
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	94	329	133	56	314	74	164	58	27	164	113	141
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	1074	910	72	803	189	228	101	47	271	128	160
Arrive On Green	0.11	0.96	0.96	0.04	0.55	0.55	0.07	0.08	0.08	0.15	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1463	345	3456	1207	562	1781	756	944
Grp Volume(v), veh/h	94	329	133	56	0	388	164	0	85	164	0	254
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1808	1728	0	1769	1781	0	1700
Q Serve(g_s), s	6.2	1.2	0.3	3.7	0.0	14.8	5.6	0.0	5.6	10.3	0.0	17.5
Cycle Q Clear(g_c), s	6.2	1.2	0.3	3.7	0.0	14.8	5.6	0.0	5.6	10.3	0.0	17.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.32	1.00		0.56
Lane Grp Cap(c), veh/h	117	1074	910	72	0	992	228	0	147	271	0	288
V/C Ratio(X)	0.80	0.31	0.15	0.77	0.00	0.39	0.72	0.00	0.58	0.61	0.00	0.88
Avail Cap(c_a), veh/h	200	1074	910	141	0	992	564	0	391	291	0	376
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.6	1.1	0.5	57.0	0.0	15.6	54.9	0.0	53.0	47.5	0.0	48.7
Incr Delay (d2), s/veh	10.3	0.6	0.3	15.9	0.0	1.2	4.2	0.0	3.5	3.2	0.0	17.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.6	0.2	2.0	0.0	6.3	2.6	0.0	2.6	4.8	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	1.7	0.8	73.0	0.0	16.7	59.1	0.0	56.5	50.7	0.0	66.1
LnGrp LOS	E	A	A	E	A	B	E	A	E	D	A	E
Approach Vol, veh/h		556			444			249			418	
Approach Delay, s/veh		11.8			23.8			58.2			60.0	
Approach LOS		B			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	73.4	12.4	24.8	12.4	70.4	22.7	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	46.4	19.6	26.5	13.5	42.4	19.6	26.5				
Max Q Clear Time (g_c+I1), s	5.7	3.2	7.6	19.5	8.2	16.8	12.3	7.6				
Green Ext Time (p_c), s	0.0	2.6	0.4	0.8	0.1	2.5	0.2	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									

Lanes, Volumes, Timings  
4: Beckwith Av. & Singleton Rd.

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	478	29	5	434	17	4
Future Volume (vph)	478	29	5	434	17	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	30			30	35	
Link Distance (ft)	407			1704	371	
Travel Time (s)	9.3			38.7	7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized



Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	478	29	5	434	17	4
Future Vol, veh/h	478	29	5	434	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	503	31	5	457	18	4























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	534	0	986 519
Stage 1	-	-	-	-	519 -
Stage 2	-	-	-	-	467 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1034	-	275 557
Stage 1	-	-	-	-	597 -
Stage 2	-	-	-	-	631 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1034	-	274 557
Mov Cap-2 Maneuver	-	-	-	-	274 -
Stage 1	-	-	-	-	597 -
Stage 2	-	-	-	-	628 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	303	-	-	1034	-
HCM Lane V/C Ratio	0.073	-	-	0.005	-
HCM Control Delay (s)	17.8	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	89	394	1	1	377	14	1	1	2	17	1	42
Future Volume (vph)	89	394	1	1	377	14	1	1	2	17	1	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		50	0		50
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		771			731			389			331	
Travel Time (s)		17.5			16.6			8.8			7.5	
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
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗	↕		↕↗	↕
Traffic Vol, veh/h	89	394	1	1	377	14	1	1	2	17	1	42
Future Vol, veh/h	89	394	1	1	377	14	1	1	2	17	1	42
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	93	410	1	1	393	15	1	1	2	18	1	44
Number of Lanes	1	2	0	1	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	11.5	11.9	9.6	9.8
HCM LOS	B	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	50%	0%	100%	0%	0%	100%	0%	0%	94%	0%
Vol Thru, %	50%	0%	0%	100%	99%	0%	100%	90%	6%	0%
Vol Right, %	0%	100%	0%	0%	1%	0%	0%	10%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	2	89	263	132	1	251	140	18	42
LT Vol	1	0	89	0	0	1	0	0	17	0
Through Vol	1	0	0	263	131	0	251	126	1	0
RT Vol	0	2	0	0	1	0	0	14	0	42
Lane Flow Rate	2	2	93	274	138	1	262	145	19	44
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.004	0.004	0.16	0.433	0.218	0.002	0.425	0.233	0.038	0.075
Departure Headway (Hd)	7.338	6.385	6.204	5.702	5.697	6.347	5.846	5.775	7.385	6.211
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	488	561	581	635	634	565	618	623	485	577
Service Time	5.075	4.122	3.904	3.402	3.397	4.067	3.566	3.495	5.12	3.946
HCM Lane V/C Ratio	0.004	0.004	0.16	0.431	0.218	0.002	0.424	0.233	0.039	0.076
HCM Control Delay	10.1	9.1	10.1	12.7	10	9.1	12.8	10.2	10.4	9.5
HCM Lane LOS	B	A	B	B	A	A	B	B	B	A
HCM 95th-tile Q	0	0	0.6	2.2	0.8	0	2.1	0.9	0.1	0.2

Lanes, Volumes, Timings  
6: Calimesa Bl. & 5th St.

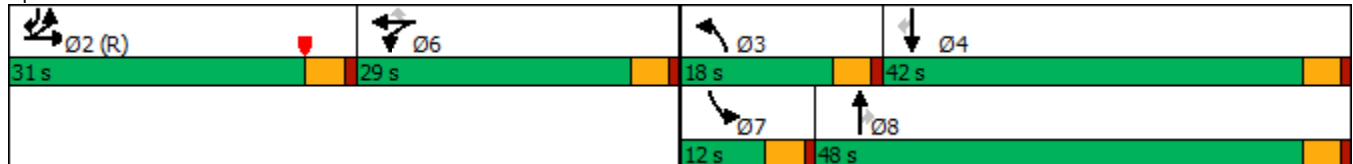
OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	90	86	40	189	28	82	363	171	32	316	345
Future Volume (vph)	97	90	86	40	189	28	82	363	171	32	316	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		80	80		80	130		50	75		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		820			632			292			752	
Travel Time (s)		18.6			14.4			5.7			14.6	
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
Shared Lane Traffic (%)	10%											
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2		6	6		3	8		7	4	2
Permitted Phases						6			8			4
Detector Phase	2	2		6	6	6	3	8	8	7	4	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	31.0	31.0		29.0	29.0	29.0	18.0	48.0	48.0	12.0	42.0	31.0
Total Split (%)	25.8%	25.8%		24.2%	24.2%	24.2%	15.0%	40.0%	40.0%	10.0%	35.0%	25.8%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max		None	None	None	None	Max	Max	None	Max	C-Max

Intersection Summary
























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	90	86	40	189	28	82	363	171	32	316	345
Future Volume (veh/h)	97	90	86	40	189	28	82	363	171	32	316	345
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	97	105	91	43	201	30	87	386	182	34	336	367
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	588	640	504	230	241	205	110	1288	575	50	615	1045
Arrive On Green	0.33	0.33	0.33	0.13	0.13	0.13	0.06	0.36	0.36	0.03	0.33	0.33
Sat Flow, veh/h	1781	1938	1528	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	97	101	95	43	201	30	87	386	182	34	336	367
Grp Sat Flow(s),veh/h/ln	1781	1870	1595	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.6	4.6	5.1	2.6	12.6	2.0	5.8	9.3	9.9	2.3	17.6	12.3
Cycle Q Clear(g_c), s	4.6	4.6	5.1	2.6	12.6	2.0	5.8	9.3	9.9	2.3	17.6	12.3
Prop In Lane	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	588	618	527	230	241	205	110	1288	575	50	615	1045
V/C Ratio(X)	0.16	0.16	0.18	0.19	0.83	0.15	0.79	0.30	0.32	0.68	0.55	0.35
Avail Cap(c_a), veh/h	588	618	527	364	382	324	200	1288	575	111	615	1045
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	28.5	28.5	28.6	46.6	51.0	46.4	55.5	27.4	27.5	57.8	32.9	9.1
Incr Delay (d2), s/veh	0.6	0.6	0.8	0.4	8.6	0.3	11.8	0.6	1.4	14.6	3.5	0.9
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	2.1	2.2	2.1	1.2	6.5	0.8	2.9	4.0	4.0	1.2	8.5	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	29.0	29.4	47.0	59.6	46.7	67.3	28.0	29.0	72.4	36.4	10.0
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	B
Approach Vol, veh/h		293			274			655			737	
Approach Delay, s/veh		29.2			56.2			33.5			24.9	
Approach LOS		C			E			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.1	11.9	44.0		20.0	7.9	48.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	13.5	37.5		24.5	7.5	43.5				
Max Q Clear Time (g_c+I1), s		7.1	7.8	19.6		14.6	4.3	11.9				
Green Ext Time (p_c), s		1.3	0.1	3.1		0.9	0.0	3.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			32.8									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Lanes, Volumes, Timings  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	529	24	258	581	346	24	8	139	266	12	237
Future Volume (vph)	161	529	24	258	581	346	24	8	139	266	12	237
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	150		50	100		100	150		0
Storage Lanes	1		1	1		1	0		0	1		0
Taper Length (ft)	110			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		627			279			369				980
Travel Time (s)		12.2			5.4			8.4				22.3
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
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4		4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	27.0	38.0	38.0	37.0	48.0	48.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	22.5%	31.7%	31.7%	30.8%	40.0%	40.0%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max

Intersection Summary

























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 95.8  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	529	24	258	581	346	24	8	139	266	12	237
Future Volume (veh/h)	161	529	24	258	581	346	24	8	139	266	12	237
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	169	557	25	272	612	364	25	8	146	280	13	249
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	207	824	368	316	1041	464	451	828	702	622	35	672
Arrive On Green	0.12	0.23	0.23	0.18	0.29	0.29	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1117	1870	1585	1233	79	1518
Grp Volume(v), veh/h	169	557	25	272	612	364	25	8	146	280	0	262
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1117	1870	1585	1233	0	1597
Q Serve(g_s), s	8.5	13.1	1.1	13.6	13.5	19.3	1.4	0.2	5.2	15.0	0.0	10.0
Cycle Q Clear(g_c), s	8.5	13.1	1.1	13.6	13.5	19.3	11.4	0.2	5.2	15.3	0.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	207	824	368	316	1041	464	451	828	702	622	0	707
V/C Ratio(X)	0.81	0.68	0.07	0.86	0.59	0.78	0.06	0.01	0.21	0.45	0.00	0.37
Avail Cap(c_a), veh/h	438	1302	581	633	1690	754	451	828	702	622	0	707
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	32.0	27.4	36.5	27.6	29.7	20.8	14.3	15.6	18.5	0.0	17.0
Incr Delay (d2), s/veh	7.5	1.0	0.1	6.8	0.5	2.9	0.2	0.0	0.7	2.3	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	4.0	5.5	0.4	6.3	5.6	7.4	0.4	0.1	1.9	4.5	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	33.0	27.5	43.3	28.1	32.6	21.0	14.3	16.3	20.9	0.0	18.5
LnGrp LOS	D	C	C	D	C	C	C	B	B	C	A	B
Approach Vol, veh/h		751			1248			179			542	
Approach Delay, s/veh		35.9			32.7			16.9			19.7	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.7	25.7		45.0	15.2	31.3		45.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	32.5	33.5		40.5	22.5	43.5		40.5				
Max Q Clear Time (g_c+I1), s	15.6	15.1		17.3	10.5	21.3		13.4				
Green Ext Time (p_c), s	0.7	3.5		2.8	0.3	5.5		0.6				

Intersection Summary

HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lanes, Volumes, Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

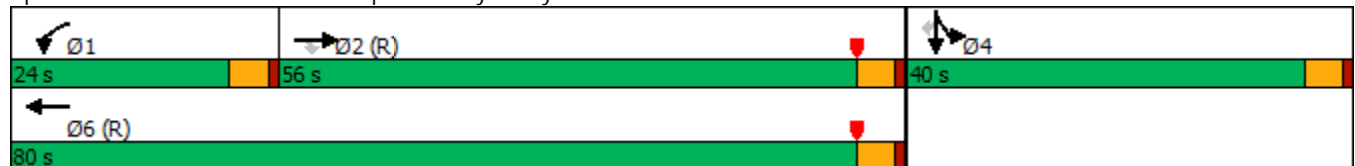
OY (2025) w/ Scenario 2 PM Peak Hour  
WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	715	219	265	456	0	0	0	0	476	0	728
Future Volume (vph)	0	715	219	265	456	0	0	0	0	476	0	728
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	145		0	0		0	0		345
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	90			90			90			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				30
Link Distance (ft)		450			641			982				791
Travel Time (s)		8.8			12.5			22.3				18.0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Shared Lane Traffic (%)												
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)		10.0	10.0	5.0	10.0					10.0	10.0	10.0
Minimum Split (s)		22.5	22.5	9.5	22.5					22.5	22.5	22.5
Total Split (s)		56.0	56.0	24.0	80.0					40.0	40.0	40.0
Total Split (%)		46.7%	46.7%	20.0%	66.7%					33.3%	33.3%	33.3%
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	3.5
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	4.5	4.5	4.5					4.5	4.5	4.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Min	C-Min	None	C-Min					Max	Max	Max

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 80 (67%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 2 PM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↖	↗
Traffic Volume (veh/h)	0	715	219	265	456	0	0	0	0	476	0	728
Future Volume (veh/h)	0	715	219	265	456	0	0	0	0	476	0	728
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	722	120	268	461	0				481	0	381
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	803	681	289	1177	0				527	0	469
Arrive On Green	0.00	0.43	0.43	0.32	1.00	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	1870	1585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	722	120	268	461	0				481	0	381
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	43.0	5.6	17.5	0.0	0.0				31.3	0.0	26.7
Cycle Q Clear(g_c), s	0.0	43.0	5.6	17.5	0.0	0.0				31.3	0.0	26.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	803	681	289	1177	0				527	0	469
V/C Ratio(X)	0.00	0.90	0.18	0.93	0.39	0.00				0.91	0.00	0.81
Avail Cap(c_a), veh/h	0	803	681	289	1177	0				527	0	469
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.68	0.68	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.8	21.1	39.9	0.0	0.0				40.8	0.0	39.2
Incr Delay (d2), s/veh	0.0	15.0	0.6	26.5	0.7	0.0				22.7	0.0	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	22.1	2.2	8.4	0.2	0.0				16.9	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.8	21.7	66.4	0.7	0.0				63.4	0.0	53.4
LnGrp LOS	A	D	C	E	A	A				E	A	D
Approach Vol, veh/h		842			729						862	
Approach Delay, s/veh		43.2			24.8						59.0	
Approach LOS		D			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	56.0		40.0		80.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	19.5	51.5		35.5		75.5						
Max Q Clear Time (g_c+I1), s	19.5	45.0		33.3		2.0						
Green Ext Time (p_c), s	0.0	2.8		1.1		3.2						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			43.3									
HCM 6th LOS			D									

Lanes, Volumes, Timings  
 9: I-10 WB Ramps & Cherry Valley Bl.

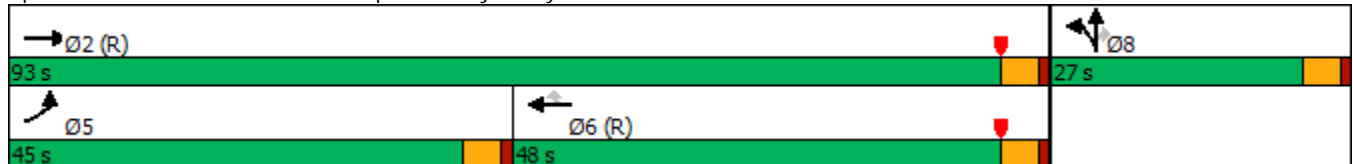
OY (2025) w/ Scenario 2 PM Peak Hour  
 WITH IMPROVEMENTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	454	737	0	0	490	417	229	8	387	0	0	0
Future Volume (vph)	454	737	0	0	490	417	229	8	387	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	285		0	0		0	0		130	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	90			90			120			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		641			240			619			885	
Travel Time (s)		12.5			4.7			14.1			20.1	
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
Shared Lane Traffic (%)												
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	10.0			10.0	10.0	10.0	10.0	10.0			
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5	22.5			
Total Split (s)	45.0	93.0			48.0	48.0	27.0	27.0	27.0			
Total Split (%)	37.5%	77.5%			40.0%	40.0%	22.5%	22.5%	22.5%			
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5	3.5			
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			
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5	4.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			

Intersection Summary



















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

OY (2025) w/ Scenario 2 PM Peak Hour  
 WITH IMPROVEMENTS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	454	737	0	0	490	417	229	8	387	0	0	0
Future Volume (veh/h)	454	737	0	0	490	417	229	8	387	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	478	776	0	0	516	228	241	8	302			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	499	1379	0	0	785	666	324	11	297			
Arrive On Green	0.56	1.00	0.00	0.00	0.14	0.14	0.19	0.19	0.19			
Sat Flow, veh/h	1781	1870	0	0	1870	1585	1727	57	1585			
Grp Volume(v), veh/h	478	776	0	0	516	228	249	0	302			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1585	1784	0	1585			
Q Serve(g_s), s	30.6	0.0	0.0	0.0	31.4	15.6	15.8	0.0	22.5			
Cycle Q Clear(g_c), s	30.6	0.0	0.0	0.0	31.4	15.6	15.8	0.0	22.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	499	1379	0	0	785	666	335	0	297			
V/C Ratio(X)	0.96	0.56	0.00	0.00	0.66	0.34	0.74	0.00	1.02			
Avail Cap(c_a), veh/h	601	1379	0	0	785	666	335	0	297			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.24	0.24	0.00	0.00	0.89	0.89	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.7	0.0	0.0	0.0	43.5	36.7	46.0	0.0	48.7			
Incr Delay (d2), s/veh	9.1	0.4	0.0	0.0	3.8	1.2	8.7	0.0	56.4			
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	10.0	0.2	0.0	0.0	16.6	6.9	7.8	0.0	13.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	0.4	0.0	0.0	47.3	38.0	54.8	0.0	105.1			
LnGrp LOS	C	A	A	A	D	D	D	A	F			
Approach Vol, veh/h		1254			744			551				
Approach Delay, s/veh		13.5			44.4			82.4				
Approach LOS		B			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		93.0			38.1	54.9		27.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		88.5			40.5	43.5		22.5				
Max Q Clear Time (g_c+I1), s		2.0			32.6	33.4		24.5				
Green Ext Time (p_c), s		6.7			1.0	2.9		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					37.4							
HCM 6th LOS					D							

Lanes, Volumes, Timings  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 2 PM Peak Hour  
 WITH IMPROVEMENTS



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑↑		↖	↖
Traffic Volume (vph)	242	882	726	60	98	181
Future Volume (vph)	242	882	726	60	98	181
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	150
Storage Lanes	0			0	1	1
Taper Length (ft)	60				90	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		240	629		475	
Travel Time (s)		4.7	12.3		9.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	9.5	22.5	22.5		22.5	22.5
Total Split (s)	36.0	96.0	60.0		24.0	24.0
Total Split (%)	30.0%	80.0%	50.0%		20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
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)	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Max	Max

Intersection Summary

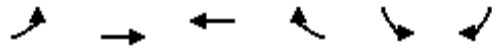
Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

OY (2025) w/ Scenario 2 PM Peak Hour  
 WITH IMPROVEMENTS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Volume (veh/h)	242	882	726	60	98	181
Future Volume (veh/h)	242	882	726	60	98	181
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	263	959	789	65	107	197
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	290	1426	1869	154	289	258
Arrive On Green	0.33	1.00	0.56	0.56	0.16	0.16
Sat Flow, veh/h	1781	1870	3418	274	1781	1585
Grp Volume(v), veh/h	263	959	422	432	107	197
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1821	1781	1585
Q Serve(g_s), s	17.0	0.0	16.4	16.4	6.4	14.3
Cycle Q Clear(g_c), s	17.0	0.0	16.4	16.4	6.4	14.3
Prop In Lane	1.00			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	290	1426	999	1024	289	258
V/C Ratio(X)	0.91	0.67	0.42	0.42	0.37	0.76
Avail Cap(c_a), veh/h	468	1426	999	1024	289	258
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	15.1	15.1	44.8	48.1
Incr Delay (d2), s/veh	11.2	1.9	1.3	1.3	3.6	19.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.8	6.7	6.9	3.1	13.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.8	1.9	16.4	16.4	48.4	67.3
LnGrp LOS	D	A	B	B	D	E
Approach Vol, veh/h		1222	854		304	
Approach Delay, s/veh		12.4	16.4		60.6	
Approach LOS		B	B		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.0		24.0	24.0	72.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		91.5		19.5	31.5	55.5
Max Q Clear Time (g_c+I1), s		2.0		16.3	19.0	18.4
Green Ext Time (p_c), s		10.2		0.3	0.6	6.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			20.0			
HCM 6th LOS			C			

**APPENDIX 6.1: INTERIM YEAR CUMULATIVE (2028) WITHOUT PROJECT  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	10.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	652	334	445	439	0	0	0	0	113	0	298
Future Vol, veh/h	0	652	334	445	439	0	0	0	0	113	0	298
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	716	367	489	482	0	0	0	0	123	0	324

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1083	0	0		2360	2543	482
Stage 1	-	-	-	-	-	-		1460	1460	-
Stage 2	-	-	-	-	-	-		900	1083	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	644	-	0		~ 39	27	584
Stage 1	0	-	-	-	-	0		213	194	-
Stage 2	0	-	-	-	-	0		397	293	-
Platoon blocked, %		-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	-	644	-	-		0	0	584
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		213	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	13.1	28.4
HCM LOS			D

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	644	-	584
HCM Lane V/C Ratio	-	-	0.759	-	0.765
HCM Control Delay (s)	-	-	26	0	28.4
HCM Lane LOS	-	-	D	A	D
HCM 95th %tile Q(veh)	-	-	7	-	6.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	97.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	391	0	0	650	235	274
Future Vol, veh/h	391	0	0	650	235	274
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	420	0	0	699	253	295

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1119 420
Stage 1	-	-	-	-	420 -
Stage 2	-	-	-	-	699 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 229 633
Stage 1	-	0	0	-	663 -
Stage 2	-	0	0	-	493 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 229 633
Mov Cap-2 Maneuver	-	-	-	-	~ 229 -
Stage 1	-	-	-	-	663 -
Stage 2	-	-	-	-	493 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	296.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	349	-	-
HCM Lane V/C Ratio	1.568	-	-
HCM Control Delay (s)	296.9	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	31.3	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	501.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	171	462	33	30	807	202	50	257	147	75	22	182
Future Vol, veh/h	171	462	33	30	807	202	50	257	147	75	22	182
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	184	497	35	32	868	217	54	276	158	81	24	196
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	406.7	827.3	164.1	64.9
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	26%	3%	27%
Vol Thru, %	57%	69%	78%	8%
Vol Right, %	32%	5%	19%	65%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	454	666	1039	279
LT Vol	50	171	30	75
Through Vol	257	462	807	22
RT Vol	147	33	202	182
Lane Flow Rate	488	716	1117	300
Geometry Grp	1	1	1	1
Degree of Util (X)	1.2	1.799	2.766	0.775
Departure Headway (Hd)	15.137	14.335	11.696	18.18
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	244	265	324	204
Service Time	13.137	12.335	9.696	16.18
HCM Lane V/C Ratio	2	2.702	3.448	1.471
HCM Control Delay	164.1	406.7	827.3	64.9
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	13.7	30.6	72.4	5.3

Intersection							
Int Delay, s/veh	65.1						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	30	559	81	20	797	224	52
Future Vol, veh/h	30	559	81	20	797	224	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	33	570	83	20	813	229	53

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	653	0	1465	612
Stage 1	-	-	-	-	-	612	-
Stage 2	-	-	-	-	-	853	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	934	-	~ 141	493
Stage 1	-	-	-	-	-	541	-
Stage 2	-	-	-	-	-	418	-
Platoon blocked, %		-	-	-		-	
Mov Cap-1 Maneuver	-	-	-	934	-	~ 138	493
Mov Cap-2 Maneuver	-	-	-	-	-	~ 138	-
Stage 1	-	-	-	-	-	541	-
Stage 2	-	-	-	-	-	409	-

Approach	EB	WB	NB
HCM Control Delay, s		0.2	\$ 415.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	160	-	-	934	-
HCM Lane V/C Ratio	1.76	-	-	0.022	-
HCM Control Delay (s)	\$ 415.5	-	-	8.9	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	20.4	-	-	0.1	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	18.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	38	568	5	1	670	14	8	1	1	23	1	118
Future Vol, veh/h	38	568	5	1	670	14	8	1	1	23	1	118
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	598	5	1	705	15	8	1	1	24	1	124
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	16.9	21.6	11.2	12.5
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	80%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	10%	0%	100%	97%	0%	100%	94%	1%
Vol Right, %	10%	0%	0%	3%	0%	0%	6%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	38	379	194	1	447	237	142
LT Vol	8	38	0	0	1	0	0	23
Through Vol	1	0	379	189	0	447	223	1
RT Vol	1	0	0	5	0	0	14	118
Lane Flow Rate	11	40	399	205	1	470	250	149
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.024	0.073	0.668	0.342	0.002	0.776	0.41	0.288
Departure Headway (Hd)	8.228	6.54	6.033	6.015	6.451	5.945	5.903	6.936
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	546	598	595	554	607	610	517
Service Time	6.012	4.294	3.787	3.769	4.202	3.695	3.654	4.7
HCM Lane V/C Ratio	0.025	0.073	0.667	0.345	0.002	0.774	0.41	0.288
HCM Control Delay	11.2	9.8	20.2	11.9	9.2	26.4	12.7	12.5
HCM Lane LOS	B	A	C	B	A	D	B	B
HCM 95th-tile Q	0.1	0.2	5	1.5	0	7.3	2	1.2

Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	248	289	34	450	21	1009	523	210	25	164	452
Future Volume (vph)	248	289	34	450	21	1009	523	210	25	164	452
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	34.6	34.6	34.6	26.8	43.0	43.0	5.9	18.0	45.1
Actuated g/C Ratio	0.19	0.19	0.29	0.29	0.29	0.22	0.36	0.36	0.05	0.15	0.38
v/c Ratio	0.84	0.79	0.08	0.99	0.05	3.01	0.49	0.39	0.33	0.69	0.81
Control Delay	71.0	53.7	31.8	78.3	0.1	927.5	32.4	19.6	65.8	62.3	38.8
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	71.0	53.7	31.8	78.3	0.1	927.5	32.4	19.6	65.8	62.3	38.8
LOS	E	D	C	E	A	F	C	B	E	E	D
Approach Delay		59.5		71.9			549.4			45.9	
Approach LOS		E		E			F			D	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.01  
 Intersection Signal Delay: 300.3  
 Intersection Capacity Utilization 118.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	289	109	34	450	21	1009	523	210	25	164	452
Future Volume (veh/h)	248	289	109	34	450	21	1009	523	210	25	164	452
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	253	394	128	40	529	25	1187	615	247	29	193	532
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	511	164	514	539	457	398	1235	551	46	281	536
Arrive On Green	0.19	0.19	0.19	0.29	0.29	0.29	0.22	0.35	0.35	0.03	0.15	0.15
Sat Flow, veh/h	1781	2713	871	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	253	270	252	40	529	25	1187	615	247	29	193	532
Grp Sat Flow(s),veh/h/ln	1781	1870	1714	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	16.1	16.4	16.8	2.0	33.7	1.4	26.8	16.4	14.5	1.9	11.7	18.0
Cycle Q Clear(g_c), s	16.1	16.4	16.8	2.0	33.7	1.4	26.8	16.4	14.5	1.9	11.7	18.0
Prop In Lane	1.00		0.51	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	352	323	514	539	457	398	1235	551	46	281	536
V/C Ratio(X)	0.75	0.77	0.78	0.08	0.98	0.05	2.98	0.50	0.45	0.63	0.69	0.99
Avail Cap(c_a), veh/h	335	352	323	514	539	457	398	1235	551	89	281	536
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	46.1	46.2	46.3	31.1	42.4	30.9	46.6	30.9	30.3	57.9	48.3	32.2
Incr Delay (d2), s/veh	14.5	14.7	16.9	0.1	33.8	0.0	899.4	1.4	2.6	13.4	12.9	37.0
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	8.5	9.1	8.7	0.9	20.6	0.5	111.1	7.2	5.8	1.0	6.4	21.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	60.9	63.3	31.2	76.1	30.9	946.0	32.3	32.9	71.2	61.3	69.2
LnGrp LOS	E	E	E	C	E	C	F	C	C	E	E	E
Approach Vol, veh/h		775			594			2049			754	
Approach Delay, s/veh		61.6			71.2			561.7			67.2	
Approach LOS		E			E			F			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	31.3	22.5		39.1	7.6	46.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		18.8	28.8	20.0		35.7	3.9	18.4				
Green Ext Time (p_c), s		1.5	0.0	0.0		0.0	0.0	4.9				

Intersection Summary		
HCM 6th Ctrl Delay		309.6
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	340	486	23	135	432	374	12	25	128	534	23
Future Volume (vph)	340	486	23	135	432	374	12	25	128	534	23
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	23.8	23.8	10.2	23.0	23.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	18.3%	39.7%	39.7%	17.0%	38.3%	38.3%	43.3%	43.3%	43.3%	43.3%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	6.5	19.3	19.3	5.7	18.5	18.5	21.5	21.5	21.5		21.5
Actuated g/C Ratio	0.11	0.32	0.32	0.10	0.31	0.31	0.36	0.36	0.36		0.36
v/c Ratio	1.96	0.47	0.04	0.88	0.44	0.53	0.03	0.04	0.21		1.73
Control Delay	471.7	17.9	0.1	76.3	18.1	4.9	12.9	12.8	3.9		356.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	471.7	17.9	0.1	76.3	18.1	4.9	12.9	12.8	3.9		356.1
LOS	F	B	A	E	B	A	B	B	A		F
Approach Delay		199.3			21.2			5.9			356.1
Approach LOS		F			C			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.96  
 Intersection Signal Delay: 175.1  
 Intersection Capacity Utilization 96.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service F

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	486	23	135	432	374	12	25	128	534	23	283
Future Volume (veh/h)	340	486	23	135	432	374	12	25	128	534	23	283
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	374	534	25	148	475	411	13	27	141	587	25	311
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	1143	510	169	1096	489	547	670	568	394	13	157
Arrive On Green	0.11	0.32	0.32	0.09	0.31	0.31	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1044	1870	1585	826	35	438
Grp Volume(v), veh/h	374	534	25	148	475	411	13	27	141	923	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1044	1870	1585	1299	0	0
Q Serve(g_s), s	6.5	7.2	0.7	4.9	6.4	14.5	0.0	0.6	3.8	20.9	0.0	0.0
Cycle Q Clear(g_c), s	6.5	7.2	0.7	4.9	6.4	14.5	0.4	0.6	3.8	21.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.64		0.34
Lane Grp Cap(c), veh/h	193	1143	510	169	1096	489	547	670	568	564	0	0
V/C Ratio(X)	1.94	0.47	0.05	0.87	0.43	0.84	0.02	0.04	0.25	1.64	0.00	0.00
Avail Cap(c_a), veh/h	193	1143	510	169	1096	489	547	670	568	564	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	16.2	14.0	26.8	16.6	19.4	12.5	12.5	13.6	21.4	0.0	0.0
Incr Delay (d2), s/veh	440.6	1.4	0.2	36.3	1.3	15.9	0.1	0.1	1.0	294.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.2	2.8	0.2	3.6	2.5	6.8	0.1	0.2	1.4	53.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	467.4	17.6	14.2	63.1	17.8	35.3	12.6	12.6	14.6	316.1	0.0	0.0
LnGrp LOS	F	B	B	E	B	D	B	B	B	F	A	A
Approach Vol, veh/h		933			1034			181			923	
Approach Delay, s/veh		197.8			31.2			14.2			316.1	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	23.8		26.0	11.0	23.0		26.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.7	19.3		21.5	6.5	18.5		21.5				
Max Q Clear Time (g_c+I1), s	6.9	9.2		23.5	8.5	16.5		5.8				
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	1.0		0.5				

Intersection Summary

HCM 6th Ctrl Delay	166.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.



**Intersection**

Intersection Delay, s/veh 66.4  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	945	203	313	493	0	0	0	0	357	0	446
Future Vol, veh/h	0	945	203	313	493	0	0	0	0	357	0	446
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1016	218	337	530	0	0	0	0	384	0	480
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	647.6	358.1	315.9
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	39%	44%
Vol Thru, %	82%	61%	0%
Vol Right, %	18%	0%	56%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1148	806	803
LT Vol	0	313	357
Through Vol	945	493	0
RT Vol	203	0	446
Lane Flow Rate	1234	867	863
Geometry Grp	1	1	1
Degree of Util (X)	2.375	1.711	1.628
Departure Headway (Hd)	9.648	10.859	8.878
Convergence, Y/N	Yes	Yes	Yes
Cap	395	347	414
Service Time	7.648	8.859	6.878
HCM Lane V/C Ratio	3.124	2.499	2.085
HCM Control Delay	647.6	358.1	315.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	69	35.5	38.3

Intersection												
Intersection Delay, s/veh	642.1											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	686	616	0	0	616	613	189	11	377	0	0	0
Future Vol, veh/h	686	616	0	0	616	613	189	11	377	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	738	662	0	0	662	659	203	12	405	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	826.1	690.2	124.6
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	33%	53%	0%
Vol Thru, %	2%	47%	50%
Vol Right, %	65%	0%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	577	1302	1229
LT Vol	189	686	0
Through Vol	11	616	616
RT Vol	377	0	613
Lane Flow Rate	620	1400	1322
Geometry Grp	1	1	1
Degree of Util (X)	1.156	2.775	2.471
Departure Headway (Hd)	9.141	9.604	9.578
Convergence, Y/N	Yes	Yes	Yes
Cap	403	392	396
Service Time	7.141	7.604	7.578
HCM Lane V/C Ratio	1.538	3.571	3.338
HCM Control Delay	124.6	826.1	690.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	17.5	87.6	73.8

Intersection						
Int Delay, s/veh	49.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	371	623	994	152	65	236
Future Vol, veh/h	371	623	994	152	65	236
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	431	724	1156	177	76	274

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1333	0	-	0	2831 1245
Stage 1	-	-	-	-	1245 -
Stage 2	-	-	-	-	1586 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	518	-	-	-	~ 19 ~ 212
Stage 1	-	-	-	-	271 -
Stage 2	-	-	-	-	185 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	518	-	-	-	0 ~ 212
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	185 -

Approach	EB	WB	SB
HCM Control Delay, s	14.1	0	\$ 353
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	518	-	-	-	212
HCM Lane V/C Ratio	0.833	-	-	-	1.651
HCM Control Delay (s)	37.7	0	-	-	\$ 353
HCM Lane LOS	E	A	-	-	F
HCM 95th %tile Q(veh)	8.4	-	-	-	23

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	457.9
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	343	2	0	1333	244	0
Future Vol, veh/h	343	2	0	1333	244	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	381	2	0	1481	271	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	30	649.1	18
HCM LOS	D	F	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1333	345	244
LT Vol	0	343	0
Through Vol	1333	0	244
RT Vol	0	2	0
Lane Flow Rate	1481	383	271
Geometry Grp	1	1	1
Degree of Util (X)	2.401	0.694	0.473
Departure Headway (Hd)	5.837	8.976	8.014
Convergence, Y/N	Yes	Yes	Yes
Cap	637	406	453
Service Time	3.837	6.976	6.014
HCM Lane V/C Ratio	2.325	0.943	0.598
HCM Control Delay	649.1	30	18
HCM Lane LOS	F	D	C
HCM 95th-tile Q	112.9	5.1	2.5

Intersection						
Int Delay, s/veh	6588.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	165	210	41	106	483	61
Future Vol, veh/h	165	210	41	106	483	61
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	330	420	82	212	966	122

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2242	188	0	0	294
Stage 1	188	-	-	-	-
Stage 2	2054	-	-	-	-
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	~ 46	854	-	-	1268
Stage 1	844	-	-	-	-
Stage 2	~ 108	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	~ 8	854	-	-	1268
Mov Cap-2 Maneuver	~ 8	-	-	-	-
Stage 1	844	-	-	-	-
Stage 2	~ 20	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay \$	18707.7	0	14.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	18	1268
HCM Lane V/C Ratio	-	-41.667	0.762	-
HCM Control Delay (s)	-	\$ 18707.7	16.3	0
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	94.5	7.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	250.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	858	431	352	841	0	0	0	0	326	0	577
Future Vol, veh/h	0	858	431	352	841	0	0	0	0	326	0	577
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	943	474	387	924	0	0	0	0	354	0	627

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	1417	0	0	2878	3115	924
Stage 1	-	-	-	-	-	-	1698	1698	-
Stage 2	-	-	-	-	-	-	1180	1417	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	481	-	0	~ 18	11	~ 327
Stage 1	0	-	-	-	-	0	~ 163	148	-
Stage 2	0	-	-	-	-	0	~ 292	203	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	481	-	-	0	0	~ 327
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-
Stage 1	-	-	-	-	-	-	~ 163	0	-
Stage 2	-	-	-	-	-	-	0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	10.8	\$ 932.9
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	481	-	327
HCM Lane V/C Ratio	-	-	0.804	-	3.002
HCM Control Delay (s)	-	-	36.6	0\$	932.9
HCM Lane LOS	-	-	E	A	F
HCM 95th %tile Q(veh)	-	-	7.5	-	86.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 751.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	⚡	
Traffic Vol, veh/h	656	0	0	725	470	475
Future Vol, veh/h	656	0	0	725	470	475
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	713	0	0	788	511	516

**Major/Minor**

	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1501 713
Stage 1	-	-	-	-	713 -
Stage 2	-	-	-	-	788 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 134 ~ 432
Stage 1	-	0	0	-	~ 486 -
Stage 2	-	0	0	-	~ 448 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 134 ~ 432
Mov Cap-2 Maneuver	-	-	-	-	~ 134 -
Stage 1	-	-	-	-	~ 486 -
Stage 2	-	-	-	-	~ 448 -

**Approach**

	EB	WB	NB
HCM Control Delay, s	0	0	\$ 1849
HCM LOS			F

**Minor Lane/Major Mvmt**

	NBLn1	EBT	WBT
Capacity (veh/h)	205	-	-
HCM Lane V/C Ratio	5.011	-	-
HCM Control Delay (s)	\$ 1849	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	106.4	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	573
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	158	874	99	74	797	94	90	58	40	191	118	244
Future Vol, veh/h	158	874	99	74	797	94	90	58	40	191	118	244
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	901	102	76	822	97	93	60	41	197	122	252
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	801.4	624.8	44.6	195
HCM LOS	F	F	E	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	48%	14%	8%	35%
Vol Thru, %	31%	77%	83%	21%
Vol Right, %	21%	9%	10%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	188	1131	965	553
LT Vol	90	158	74	191
Through Vol	58	874	797	118
RT Vol	40	99	94	244
Lane Flow Rate	194	1166	995	570
Geometry Grp	1	1	1	1
Degree of Util (X)	0.517	2.705	2.303	1.295
Departure Headway (Hd)	21.027	12.213	13.104	13.879
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	174	315	289	268
Service Time	19.027	10.213	11.104	11.879
HCM Lane V/C Ratio	1.115	3.702	3.443	2.127
HCM Control Delay	44.6	801.4	624.8	195
HCM Lane LOS	E	F	F	F
HCM 95th-tile Q	2.6	67.3	49.5	17



Intersection						
Int Delay, s/veh	54.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	
Traffic Vol, veh/h	731	255	63	679	151	38
Future Vol, veh/h	731	255	63	679	151	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	769	268	66	715	159	40

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1037	0	1750 903
Stage 1	-	-	-	-	903 -
Stage 2	-	-	-	-	847 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	670	-	~ 94 336
Stage 1	-	-	-	-	396 -
Stage 2	-	-	-	-	420 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	670	-	~ 85 336
Mov Cap-2 Maneuver	-	-	-	-	~ 85 -
Stage 1	-	-	-	-	396 -
Stage 2	-	-	-	-	378 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	\$ 549.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	100	-	-	670	-
HCM Lane V/C Ratio	1.989	-	-	0.099	-
HCM Control Delay (s)	\$ 549.6	-	-	11	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	16.8	-	-	0.3	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↘			↕↘	
Traffic Vol, veh/h	105	664	1	1	665	15	1	1	2	18	1	54
Future Vol, veh/h	105	664	1	1	665	15	1	1	2	18	1	54
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	692	1	1	693	16	1	1	2	19	1	56
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	17.3	19.1	10.4	11.2
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	25%
Vol Thru, %	25%	0%	100%	100%	0%	100%	94%	1%
Vol Right, %	50%	0%	0%	0%	0%	0%	6%	74%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	105	443	222	1	443	237	73
LT Vol	1	105	0	0	1	0	0	18
Through Vol	1	0	443	221	0	443	222	1
RT Vol	2	0	0	1	0	0	15	54
Lane Flow Rate	4	109	461	232	1	462	247	76
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.009	0.187	0.723	0.363	0.002	0.737	0.39	0.151
Departure Headway (Hd)	7.548	6.146	5.643	5.64	6.246	5.743	5.698	7.131
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	474	584	641	639	573	628	631	503
Service Time	5.302	3.878	3.375	3.372	3.98	3.476	3.432	4.878
HCM Lane V/C Ratio	0.008	0.187	0.719	0.363	0.002	0.736	0.391	0.151
HCM Control Delay	10.4	10.3	21.8	11.6	9	22.9	12	11.2
HCM Lane LOS	B	B	C	B	A	C	B	B
HCM 95th-tile Q	0	0.7	6.1	1.7	0	6.4	1.8	0.5

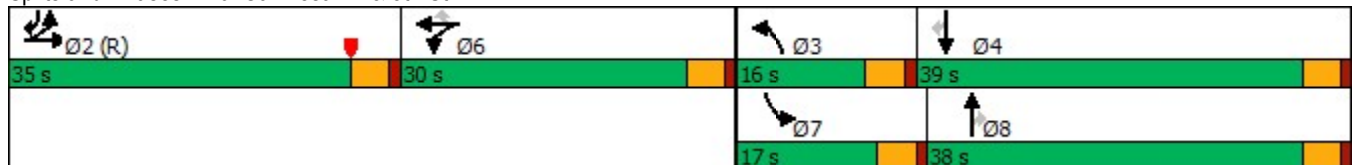
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	190	178	91	327	29	1036	403	215	34	355	502
Future Volume (vph)	190	178	91	327	29	1036	403	215	34	355	502
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	24.6	24.6	24.6	12.4	43.2	43.2	7.9	34.5	69.5
Actuated g/C Ratio	0.25	0.25	0.20	0.20	0.20	0.10	0.36	0.36	0.07	0.29	0.58
v/c Ratio	0.44	0.40	0.27	0.91	0.08	6.05	0.34	0.35	0.31	0.71	0.56
Control Delay	41.6	27.0	41.9	75.5	0.4	2296.2	30.6	15.6	59.6	46.6	15.6
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	41.6	27.0	41.9	75.5	0.4	2296.2	30.6	15.6	59.6	46.6	15.6
LOS	D	C	D	E	A	F	C	B	E	D	B
Approach Delay		31.9		63.7			1447.2			29.6	
Approach LOS		C		E			F			C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 6.05  
 Intersection Signal Delay: 705.9  
 Intersection Capacity Utilization 118.1%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	178	132	91	327	29	1036	403	215	34	355	502
Future Volume (veh/h)	190	178	132	91	327	29	1036	403	215	34	355	502
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	224	140	97	348	31	1102	429	229	36	378	534
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	470	579	346	361	379	321	171	1259	561	52	538	874
Arrive On Green	0.26	0.26	0.26	0.20	0.20	0.20	0.10	0.35	0.35	0.03	0.29	0.29
Sat Flow, veh/h	1781	2192	1312	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	177	190	174	97	348	31	1102	429	229	36	378	534
Grp Sat Flow(s),veh/h/ln	1781	1870	1634	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	9.7	10.0	10.5	5.5	21.9	1.9	11.5	10.6	13.1	2.4	21.7	27.3
Cycle Q Clear(g_c), s	9.7	10.0	10.5	5.5	21.9	1.9	11.5	10.6	13.1	2.4	21.7	27.3
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	494	431	361	379	321	171	1259	561	52	538	874
V/C Ratio(X)	0.38	0.38	0.40	0.27	0.92	0.10	6.46	0.34	0.41	0.69	0.70	0.61
Avail Cap(c_a), veh/h	470	494	431	379	397	337	171	1259	561	186	538	874
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	36.2	36.4	40.3	46.9	38.9	54.3	28.5	29.2	57.7	38.2	18.2
Incr Delay (d2), s/veh	2.3	2.3	2.8	0.4	25.4	0.1	2467.4	0.7	2.2	15.3	7.5	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.9	4.6	2.5	12.9	0.8	122.1	4.6	5.3	1.3	10.9	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	38.4	39.2	40.7	72.2	39.0	2521.6	29.2	31.4	73.0	45.7	21.4
LnGrp LOS	D	D	D	D	E	D	F	C	C	E	D	C
Approach Vol, veh/h		541			476			1760			948	
Approach Delay, s/veh		38.7			63.6			1590.1			33.0	
Approach LOS		D			E			F			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.2	16.0	39.0		28.8	8.0	47.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		12.5	13.5	29.3		23.9	4.4	15.1				
Green Ext Time (p_c), s		2.6	0.0	2.1		0.4	0.0	3.4				

Intersection Summary

HCM 6th Ctrl Delay	773.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	259	592	26	274	665	434	26	9	148	325	12
Future Volume (vph)	259	592	26	274	665	434	26	9	148	325	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	24.0	24.0	12.0	25.0	25.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	18.3%	40.0%	40.0%	20.0%	41.7%	41.7%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	6.5	19.5	19.5	7.5	20.5	20.5	19.5	19.5	19.5		19.5
Actuated g/C Ratio	0.11	0.32	0.32	0.12	0.34	0.34	0.32	0.32	0.32		0.32
v/c Ratio	1.43	0.54	0.05	1.30	0.58	0.60	0.09	0.01	0.25		1.30
Control Delay	247.7	18.7	0.2	193.2	18.5	8.3	15.2	13.9	4.3		168.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	247.7	18.7	0.2	193.2	18.5	8.3	15.2	13.9	4.3		168.8
LOS	F	B	A	F	B	A	B	B	A		F
Approach Delay		85.9			50.1			6.3			168.8
Approach LOS		F			D			A			F

Intersection Summary

Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.43	
Intersection Signal Delay: 82.9	Intersection LOS: F
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	592	26	274	665	434	26	9	148	325	12	317
Future Volume (veh/h)	259	592	26	274	665	434	26	9	148	325	12	317
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	273	623	27	288	700	457	27	9	156	342	13	334
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	193	1155	515	223	1214	542	429	608	515	311	8	216
Arrive On Green	0.11	0.32	0.32	0.13	0.34	0.34	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1034	1870	1585	680	26	664
Grp Volume(v), veh/h	273	623	27	288	700	457	27	9	156	689	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1034	1870	1585	1370	0	0
Q Serve(g_s), s	6.5	8.6	0.7	7.5	9.7	16.0	0.0	0.2	4.4	19.3	0.0	0.0
Cycle Q Clear(g_c), s	6.5	8.6	0.7	7.5	9.7	16.0	1.2	0.2	4.4	19.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.50		0.48
Lane Grp Cap(c), veh/h	193	1155	515	223	1214	542	429	608	515	535	0	0
V/C Ratio(X)	1.41	0.54	0.05	1.29	0.58	0.84	0.06	0.01	0.30	1.29	0.00	0.00
Avail Cap(c_a), veh/h	193	1155	515	223	1214	542	429	608	515	535	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	16.6	13.9	26.2	16.2	18.3	14.1	13.7	15.2	22.0	0.0	0.0
Incr Delay (d2), s/veh	214.3	1.8	0.2	161.2	2.0	14.8	0.3	0.0	1.5	143.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.0	3.4	0.3	12.9	3.8	7.3	0.3	0.1	1.7	28.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	241.1	18.4	14.1	187.5	18.2	33.1	14.3	13.8	16.7	165.1	0.0	0.0
LnGrp LOS	F	B	B	F	B	C	B	B	B	F	A	A
Approach Vol, veh/h		923			1445			192			689	
Approach Delay, s/veh		84.1			56.6			16.2			165.1	
Approach LOS		F			E			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	24.0		24.0	11.0	25.0		24.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	19.5		19.5	6.5	20.5		19.5				
Max Q Clear Time (g_c+I1), s	9.5	10.6		21.5	8.5	18.0		6.4				
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	1.5		0.5				

Intersection Summary

HCM 6th Ctrl Delay	85.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

**Intersection**

Intersection Delay, s/veh 569.1  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	847	218	336	576	0	0	0	0	546	0	797
Future Vol, veh/h	0	847	218	336	576	0	0	0	0	546	0	797
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	856	220	339	582	0	0	0	0	552	0	805
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	516.9	405.8	721.3
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	37%	41%
Vol Thru, %	80%	63%	0%
Vol Right, %	20%	0%	59%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1065	912	1343
LT Vol	0	336	546
Through Vol	847	576	0
RT Vol	218	0	797
Lane Flow Rate	1076	921	1357
Geometry Grp	1	1	1
Degree of Util (X)	2.064	1.806	2.546
Departure Headway (Hd)	12.292	13.002	8.654
Convergence, Y/N	Yes	Yes	Yes
Cap	312	295	434
Service Time	10.292	11.002	6.654
HCM Lane V/C Ratio	3.449	3.122	3.127
HCM Control Delay	516.9	405.8	721.3
HCM Lane LOS	F	F	F
HCM 95th-tile Q	44.1	33.5	85.1

Intersection												
Intersection Delay, s/veh	647.3											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	496	898	0	0	673	509	240	9	405	0	0	0
Future Vol, veh/h	496	898	0	0	673	509	240	9	405	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	522	945	0	0	708	536	253	9	426	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	880.2	634	174.7
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	37%	36%	0%
Vol Thru, %	1%	64%	57%
Vol Right, %	62%	0%	43%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	654	1394	1182
LT Vol	240	496	0
Through Vol	9	898	673
RT Vol	405	0	509
Lane Flow Rate	688	1467	1244
Geometry Grp	1	1	1
Degree of Util (X)	1.288	2.895	2.341
Departure Headway (Hd)	9.207	9.788	10.203
Convergence, Y/N	Yes	Yes	Yes
Cap	399	396	373
Service Time	7.207	7.788	8.203
HCM Lane V/C Ratio	1.724	3.705	3.335
HCM Control Delay	174.7	880.2	634
HCM Lane LOS	F	F	F
HCM 95th-tile Q	22.5	91.5	64



Intersection						
Int Delay, s/veh	37					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	298	1006	934	74	118	248
Future Vol, veh/h	298	1006	934	74	118	248
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	324	1093	1015	80	128	270

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1095	0	-	0	2796 1055
Stage 1	-	-	-	-	1055 -
Stage 2	-	-	-	-	1741 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	637	-	-	-	~ 20 274
Stage 1	-	-	-	-	335 -
Stage 2	-	-	-	-	155 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	637	-	-	-	0 274
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	155 -

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	257.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	637	-	-	-	274
HCM Lane V/C Ratio	0.508	-	-	-	1.452
HCM Control Delay (s)	16.4	0	-	-	257.4
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	2.9	-	-	-	22.2

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	381.4
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	399	1	0	1172	538	0
Future Vol, veh/h	399	1	0	1172	538	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	429	1	0	1260	578	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	48.4	626.6	94.8
HCM LOS	E	F	F

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1172	400	538
LT Vol	0	399	0
Through Vol	1172	0	538
RT Vol	0	1	0
Lane Flow Rate	1260	430	578
Geometry Grp	1	1	1
Degree of Util (X)	2.344	0.864	1.076
Departure Headway (Hd)	6.932	9.099	8.456
Convergence, Y/N	Yes	Yes	Yes
Cap	542	400	434
Service Time	4.932	7.099	6.456
HCM Lane V/C Ratio	2.325	1.075	1.332
HCM Control Delay	626.6	48.4	94.8
HCM Lane LOS	F	E	F
HCM 95th-tile Q	92.2	8.4	15.3

Intersection						
Int Delay, s/veh	8068.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	299	529	72	309	435	54
Future Vol, veh/h	299	529	72	309	435	54
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	498	882	120	515	725	90

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1918	378	0	0	635
Stage 1	378	-	-	-	-
Stage 2	1540	-	-	-	-
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	~ 74	~ 669	-	-	948
Stage 1	693	-	-	-	-
Stage 2	~ 195	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 14	~ 669	-	-	948
Mov Cap-2 Maneuver	~ 14	-	-	-	-
Stage 1	693	-	-	-	-
Stage 2	~ 38	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay \$/veh	6535.5	0	17.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	37	948
HCM Lane V/C Ratio	-	-37.297	0.765	-
HCM Control Delay (s)	-	\$ 16535.5	20	0
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	170.9	7.7

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	827.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	528	238	303	576	0	0	0	0	144	0	314
Future Vol, veh/h	0	528	238	303	576	0	0	0	0	144	0	314
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	600	270	344	655	0	0	0	0	157	0	341

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	870	0	0		2078	2213	655
Stage 1	-	-	-	-	-	-		1343	1343	-
Stage 2	-	-	-	-	-	-		735	870	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	775	-	0		~ 59	44	466
Stage 1	0	-	-	-	-	0		243	221	-
Stage 2	0	-	-	-	-	0		474	369	-
Platoon blocked, %		-	-	-						
Mov Cap-1 Maneuver	-	-	-	775	-	-		~ 18	0	466
Mov Cap-2 Maneuver	-	-	-	-	-	-		~ 18	0	-
Stage 1	-	-	-	-	-	-		243	0	-
Stage 2	-	-	-	-	-	-		~ 143	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	4.6	\$ 3924.3
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	775	-	53
HCM Lane V/C Ratio	-	-	0.444	-	9.393
HCM Control Delay (s)	-	-	13.3	\$ 3924.3	
HCM Lane LOS	-	-	B	A	F
HCM 95th %tile Q(veh)	-	-	2.3	-	58.8

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	145.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	412	0	0	581	299	261
Future Vol, veh/h	412	0	0	581	299	261
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	448	0	0	632	325	284

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1080 448
Stage 1	-	-	-	-	448 -
Stage 2	-	-	-	-	632 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 241 611
Stage 1	-	0	0	-	644 -
Stage 2	-	0	0	-	530 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 241 611
Mov Cap-2 Maneuver	-	-	-	-	~ 241 -
Stage 1	-	-	-	-	644 -
Stage 2	-	-	-	-	530 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 403.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	336	-	-
HCM Lane V/C Ratio	1.812	-	-
HCM Control Delay (s)	\$ 403.5	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	39.8	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	180.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	116	514	42	34	560	122	34	51	39	118	72	106
Future Vol, veh/h	116	514	42	34	560	122	34	51	39	118	72	106
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	547	45	36	596	130	36	54	41	126	77	113
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	212.2	241.8	18.5	29.3
HCM LOS	F	F	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	17%	5%	40%
Vol Thru, %	41%	76%	78%	24%
Vol Right, %	31%	6%	17%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	672	716	296
LT Vol	34	116	34	118
Through Vol	51	514	560	72
RT Vol	39	42	122	106
Lane Flow Rate	132	715	762	315
Geometry Grp	1	1	1	1
Degree of Util (X)	0.315	1.393	1.465	0.673
Departure Headway (Hd)	10.7	7.872	7.673	9.257
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	339	465	480	394
Service Time	8.7	5.872	5.673	7.257
HCM Lane V/C Ratio	0.389	1.538	1.587	0.799
HCM Control Delay	18.5	212.2	241.8	29.3
HCM Lane LOS	C	F	F	D
HCM 95th-tile Q	1.3	30.3	34.7	4.8

Intersection							
Int Delay, s/veh	20.2						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↶		↶	↶	↶	
Traffic Vol, veh/h	34	455	186	46	524	177	44
Future Vol, veh/h	34	455	186	46	524	177	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	37	479	196	48	552	186	46

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	675	0	1225	577
Stage 1	-	-	-	-	-	577	-
Stage 2	-	-	-	-	-	648	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	916	-	198	516
Stage 1	-	-	-	-	-	562	-
Stage 2	-	-	-	-	-	521	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	916	-	188	516
Mov Cap-2 Maneuver	-	-	-	-	-	188	-
Stage 1	-	-	-	-	-	562	-
Stage 2	-	-	-	-	-	494	-

Approach	EB	WB	NB
HCM Control Delay, s		0.7	132.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	215	-	-	916	-
HCM Lane V/C Ratio	1.082	-	-	0.053	-
HCM Control Delay (s)	132.4	-	-	9.1	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	10.5	-	-	0.2	-

Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕↔		↙	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	42	420	1	1	523	6	2	1	1	8	1	55
Future Vol, veh/h	42	420	1	1	523	6	2	1	1	8	1	55
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	462	1	1	575	7	2	1	1	9	1	60
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	11.3	13	9.8	9.9
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	50%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	25%	0%	100%	99%	0%	100%	97%	2%
Vol Right, %	25%	0%	0%	1%	0%	0%	3%	86%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	42	280	141	1	349	180	64
LT Vol	2	42	0	0	1	0	0	8
Through Vol	1	0	280	140	0	349	174	1
RT Vol	1	0	0	1	0	0	6	55
Lane Flow Rate	4	46	308	155	1	383	198	70
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.009	0.074	0.453	0.228	0.002	0.558	0.287	0.123
Departure Headway (Hd)	7.065	5.807	5.304	5.299	5.742	5.24	5.216	6.277
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	509	613	674	672	619	682	684	575
Service Time	4.768	3.582	3.08	3.075	3.513	3.011	2.987	3.978
HCM Lane V/C Ratio	0.008	0.075	0.457	0.231	0.002	0.562	0.289	0.122
HCM Control Delay	9.8	9.1	12.5	9.7	8.5	14.5	10.1	9.9
HCM Lane LOS	A	A	B	A	A	B	B	A
HCM 95th-tile Q	0	0.2	2.4	0.9	0	3.5	1.2	0.4



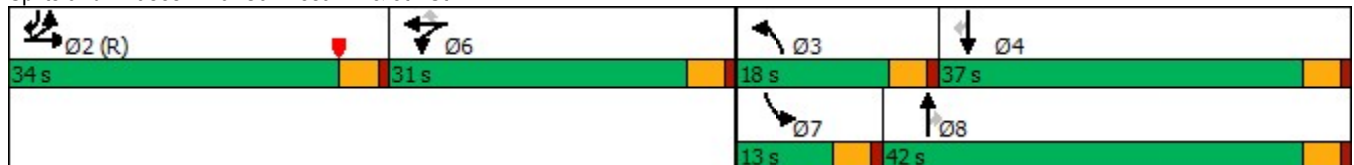
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	83	62	73	194	37	70	415	159	36	162	348
Future Volume (vph)	83	62	73	194	37	70	415	159	36	162	348
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	38.0	38.0	9.5	31.0	22.5
Total Split (s)	34.0	34.0	31.0	31.0	31.0	18.0	42.0	42.0	13.0	37.0	34.0
Total Split (%)	28.3%	28.3%	25.8%	25.8%	25.8%	15.0%	35.0%	35.0%	10.8%	30.8%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	29.5	29.5	19.1	19.1	19.1	10.4	47.7	47.7	7.7	45.2	79.2
Actuated g/C Ratio	0.25	0.25	0.16	0.16	0.16	0.09	0.40	0.40	0.06	0.38	0.66
v/c Ratio	0.17	0.16	0.28	0.72	0.11	0.50	0.32	0.26	0.35	0.25	0.33
Control Delay	37.0	26.0	45.4	61.1	0.6	63.1	27.8	14.3	61.8	30.3	2.6
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	37.0	26.0	45.4	61.1	0.6	63.1	27.8	14.3	61.8	30.3	2.6
LOS	D	C	D	E	A	E	C	B	E	C	A
Approach Delay		29.7		49.9			28.3			14.8	
Approach LOS		C		D			C			B	

























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 28.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 47.2%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 										
Traffic Volume (veh/h)	83	62	33	73	194	37	70	415	159	36	162	348
Future Volume (veh/h)	83	62	33	73	194	37	70	415	159	36	162	348
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	65	104	36	80	213	41	77	456	175	40	178	382
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	658	993	329	245	257	218	99	1111	495	55	538	1041
Arrive On Green	0.37	0.37	0.37	0.14	0.14	0.14	0.06	0.31	0.31	0.03	0.29	0.29
Sat Flow, veh/h	1781	2690	890	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	65	71	69	80	213	41	77	456	175	40	178	382
Grp Sat Flow(s),veh/h/ln	1781	1870	1710	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	2.9	3.0	3.2	4.9	13.3	2.7	5.1	12.1	10.2	2.7	9.0	13.1
Cycle Q Clear(g_c), s	2.9	3.0	3.2	4.9	13.3	2.7	5.1	12.1	10.2	2.7	9.0	13.1
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	658	690	631	245	257	218	99	1111	495	55	538	1041
V/C Ratio(X)	0.10	0.10	0.11	0.33	0.83	0.19	0.78	0.41	0.35	0.73	0.33	0.37
Avail Cap(c_a), veh/h	658	690	631	393	413	350	200	1111	495	126	538	1041
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(l)	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	24.8	24.8	24.9	46.7	50.4	45.8	56.0	32.5	31.9	57.7	33.6	9.3
Incr Delay (d2), s/veh	0.3	0.3	0.4	0.8	7.4	0.4	12.5	1.1	2.0	17.0	1.6	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	1.3	1.4	1.4	2.2	6.8	1.1	2.6	5.3	4.2	1.5	4.3	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	25.1	25.2	47.5	57.7	46.2	68.5	33.7	33.9	74.7	35.3	10.3
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	B
Approach Vol, veh/h		205			334			708			600	
Approach Delay, s/veh		25.1			53.8			37.5			22.0	
Approach LOS		C			D			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.8	11.1	39.0		21.0	8.2	42.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	13.5	32.5		26.5	8.5	37.5				
Max Q Clear Time (g_c+I1), s		5.2	7.1	15.1		15.3	4.7	14.1				
Green Ext Time (p_c), s		0.9	0.1	2.2		1.2	0.0	3.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

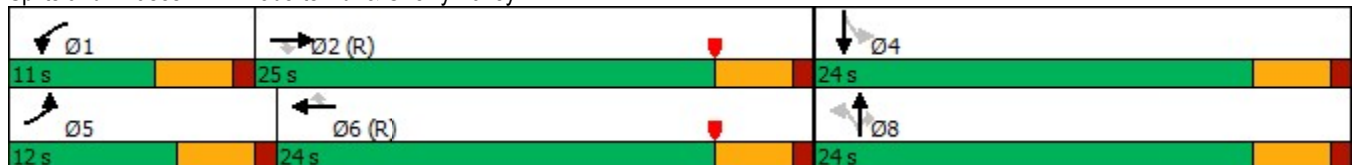
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	295	453	45	273	452	331	25	3	158	384	12
Future Volume (vph)	295	453	45	273	452	331	25	3	158	384	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	12.0	25.0	25.0	11.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	20.0%	41.7%	41.7%	18.3%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	7.5	20.5	20.5	6.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
Actuated g/C Ratio	0.12	0.34	0.34	0.11	0.32	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	1.42	0.40	0.08	1.52	0.42	0.47	0.08	0.00	0.27		1.30
Control Delay	240.4	16.3	0.6	284.3	17.2	4.4	14.8	13.7	4.2		170.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	240.4	16.3	0.6	284.3	17.2	4.4	14.8	13.7	4.2		170.8
LOS	F	B	A	F	B	A	B	B	A		F
Approach Delay		98.8			82.2			5.8			170.8
Approach LOS		F			F			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.52  
 Intersection Signal Delay: 102.1  
 Intersection Capacity Utilization 81.4%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service D

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖	↗↗	↖	↖	↗	↖	↖	↗↗	↖
Traffic Volume (veh/h)	295	453	45	273	452	331	25	3	158	384	12	209
Future Volume (veh/h)	295	453	45	273	452	331	25	3	158	384	12	209
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	314	482	48	290	481	352	27	3	168	409	13	222
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	223	1214	542	193	1155	515	508	608	515	372	9	149
Arrive On Green	0.13	0.34	0.34	0.11	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1145	1870	1585	842	27	457
Grp Volume(v), veh/h	314	482	48	290	481	352	27	3	168	644	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1145	1870	1585	1326	0	0
Q Serve(g_s), s	7.5	6.2	1.2	6.5	6.3	11.6	0.0	0.1	4.8	19.4	0.0	0.0
Cycle Q Clear(g_c), s	7.5	6.2	1.2	6.5	6.3	11.6	0.9	0.1	4.8	19.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.64		0.34
Lane Grp Cap(c), veh/h	223	1214	542	193	1155	515	508	608	515	529	0	0
V/C Ratio(X)	1.41	0.40	0.09	1.50	0.42	0.68	0.05	0.00	0.33	1.22	0.00	0.00
Avail Cap(c_a), veh/h	223	1214	542	193	1155	515	508	608	515	529	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.2	15.0	13.4	26.8	15.8	17.6	14.0	13.7	15.3	22.1	0.0	0.0
Incr Delay (d2), s/veh	209.1	1.0	0.3	251.4	1.1	7.2	0.2	0.0	1.7	114.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.9	2.4	0.4	16.0	2.4	4.7	0.3	0.0	1.8	24.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	235.4	16.0	13.7	278.1	16.9	24.7	14.2	13.7	17.0	136.1	0.0	0.0
LnGrp LOS	F	B	B	F	B	C	B	B	B	F	A	A
Approach Vol, veh/h		844			1123			198			644	
Approach Delay, s/veh		97.5			86.8			16.5			136.1	
Approach LOS		F			F			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	25.0		24.0	12.0	24.0		24.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	20.5		19.5	7.5	19.5		19.5				
Max Q Clear Time (g_c+I1), s	8.5	8.2		21.5	9.5	13.6		6.8				
Green Ext Time (p_c), s	0.0	2.6		0.0	0.0	2.3		0.5				

Intersection Summary

HCM 6th Ctrl Delay	96.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	11.9											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	791	203	224	513	0	0	0	0	442	2	542
Future Vol, veh/h	0	791	203	224	513	0	0	0	0	442	2	542
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	824	211	233	534	0	0	0	0	460	2	565
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	476.8	273.7	449.9
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	30%	45%
Vol Thru, %	80%	70%	0%
Vol Right, %	20%	0%	55%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	994	737	986
LT Vol	0	224	442
Through Vol	791	513	2
RT Vol	203	0	542
Lane Flow Rate	1035	768	1027
Geometry Grp	1	1	1
Degree of Util (X)	1.987	1.512	1.937
Departure Headway (Hd)	10.135	11.12	8.462
Convergence, Y/N	Yes	Yes	Yes
Cap	373	338	442
Service Time	8.135	9.12	6.462
HCM Lane V/C Ratio	2.775	2.272	2.324
HCM Control Delay	476.8	273.7	449.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	49.2	27.4	55.4

Intersection												
Intersection Delay, s/veh	437.3											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	618	615	0	0	546	365	191	5	309	0	0	0
Future Vol, veh/h	618	615	0	0	546	365	191	5	309	0	0	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	624	621	0	0	552	369	193	5	312	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	659.4	343.5	64.2
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	38%	50%	0%
Vol Thru, %	1%	50%	60%
Vol Right, %	61%	0%	40%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	505	1233	911
LT Vol	191	618	0
Through Vol	5	615	546
RT Vol	309	0	365
Lane Flow Rate	510	1245	920
Geometry Grp	1	1	1
Degree of Util (X)	0.955	2.411	1.694
Departure Headway (Hd)	8.851	8.024	8.557
Convergence, Y/N	Yes	Yes	Yes
Cap	413	473	432
Service Time	6.851	6.024	6.557
HCM Lane V/C Ratio	1.235	2.632	2.13
HCM Control Delay	64.2	659.4	343.5
HCM Lane LOS	F	F	F
HCM 95th-tile Q	11	84	42.7

Intersection						
Int Delay, s/veh	140					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	225	700	689	84	74	222
Future Vol, veh/h	225	700	689	84	74	222
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	237	737	725	88	78	234

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	813	0	-	0	1980 769
Stage 1	-	-	-	-	769 -
Stage 2	-	-	-	-	1211 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	814	-	-	-	~ 68 401
Stage 1	-	-	-	-	457 -
Stage 2	-	-	-	-	282 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	814	-	-	-	~ 34 401
Mov Cap-2 Maneuver	-	-	-	-	~ 34 -
Stage 1	-	-	-	-	232 -
Stage 2	-	-	-	-	282 -

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	\$ 934.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	814	-	-	-	108
HCM Lane V/C Ratio	0.291	-	-	-	2.885
HCM Control Delay (s)	11.2	0	-	-	\$ 934.8
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	1.2	-	-	-	29.4

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	381	5	0	263	269	0
Future Vol, veh/h	381	5	0	263	269	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	423	6	0	292	299	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.7	13.9	14
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	263	386	269
LT Vol	0	381	0
Through Vol	263	0	269
RT Vol	0	5	0
Lane Flow Rate	292	429	299
Geometry Grp	1	1	1
Degree of Util (X)	0.468	0.688	0.478
Departure Headway (Hd)	5.767	5.772	5.756
Convergence, Y/N	Yes	Yes	Yes
Cap	622	626	622
Service Time	3.83	3.822	3.819
HCM Lane V/C Ratio	0.469	0.685	0.481
HCM Control Delay	13.9	20.7	14
HCM Lane LOS	B	C	B
HCM 95th-tile Q	2.5	5.4	2.6



Intersection						
Int Delay, s/veh	5569.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	435	49	68	387	45
Future Vol, veh/h	79	435	49	68	387	45
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	40	40	40	40	40	40
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	198	1088	123	170	968	113

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2257	208	0	0	293
Stage 1	208	-	-	-	-
Stage 2	2049	-	-	-	-
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	~ 45	~ 832	-	-	1269
Stage 1	827	-	-	-	-
Stage 2	~ 108	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 8	~ 832	-	-	1269
Mov Cap-2 Maneuver	~ 8	-	-	-	-
Stage 1	827	-	-	-	-
Stage 2	~ 20	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay \$/s	1505.4	0	14.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	49	1269
HCM Lane V/C Ratio	-	-26.224	0.762	-
HCM Control Delay (s)	-	\$ 11505.4	16.3	0
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	157.6	8

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**APPENDIX 6.2: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT  
SCENARIO 1 CONDITIONS INTERSECTION ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	15.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	660	334	463	447	0	0	0	0	199	0	298
Future Vol, veh/h	0	660	334	463	447	0	0	0	0	199	0	298
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	725	367	509	491	0	0	0	0	216	0	324

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1092	0	0		2418	2601	491
Stage 1	-	-	-	-	-	-		1509	1509	-
Stage 2	-	-	-	-	-	-		909	1092	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	639	-	0		~ 36	25	578
Stage 1	0	-	-	-	-	0		~ 202	183	-
Stage 2	0	-	-	-	-	0		393	291	-
Platoon blocked, %	-	-	-	-	-	-		-	-	-
Mov Cap-1 Maneuver	-	-	-	639	-	-		0	0	578
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 202	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	14.7	49.8
HCM LOS			E

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	639	-	578
HCM Lane V/C Ratio	-	-	0.796	-	0.935
HCM Control Delay (s)	-	-	29	0	49.8
HCM Lane LOS	-	-	D	A	E
HCM 95th %tile Q(veh)	-	-	7.9	-	12.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	141.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	485	0	0	676	235	300
Future Vol, veh/h	485	0	0	676	235	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	522	0	0	727	253	323

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1249 522
Stage 1	-	-	-	-	522 -
Stage 2	-	-	-	-	727 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 191 555
Stage 1	-	0	0	-	595 -
Stage 2	-	0	0	-	478 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 191 555
Mov Cap-2 Maneuver	-	-	-	-	~ 191 -
Stage 1	-	-	-	-	595 -
Stage 2	-	-	-	-	478 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 447.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	302	-	-
HCM Lane V/C Ratio	1.905	-	-
HCM Control Delay (s)	\$ 447.8	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	39.6	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	567.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	171	462	154	38	807	202	156	267	154	75	31	182
Future Vol, veh/h	171	462	154	38	807	202	156	267	154	75	31	182
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	184	497	166	41	868	217	168	287	166	81	33	196
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	554.4	855	307.4	81.5
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	22%	4%	26%
Vol Thru, %	46%	59%	77%	11%
Vol Right, %	27%	20%	19%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	577	787	1047	288
LT Vol	156	171	38	75
Through Vol	267	462	807	31
RT Vol	154	154	202	182
Lane Flow Rate	620	846	1126	310
Geometry Grp	1	1	1	1
Degree of Util (X)	1.552	2.125	2.815	0.8
Departure Headway (Hd)	16.337	16.184	14.046	22.642
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	230	237	270	164
Service Time	14.337	14.184	12.046	20.642
HCM Lane V/C Ratio	2.696	3.57	4.17	1.89
HCM Control Delay	307.4	554.4	855	81.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	21.2	36.2	62.5	5.2

Intersection							
Int Delay, s/veh	67.8						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	30	566	81	20	805	224	52
Future Vol, veh/h	30	566	81	20	805	224	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	33	578	83	20	821	229	53

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	661	0	1481	620
Stage 1	-	-	-	-	-	620	-
Stage 2	-	-	-	-	-	861	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	927	-	~ 138	488
Stage 1	-	-	-	-	-	536	-
Stage 2	-	-	-	-	-	414	-
Platoon blocked, %		-	-			-	
Mov Cap-1 Maneuver	-	-	-	927	-	~ 135	488
Mov Cap-2 Maneuver	-	-	-	-	-	~ 135	-
Stage 1	-	-	-	-	-	536	-
Stage 2	-	-	-	-	-	405	-

Approach	EB	WB	NB
HCM Control Delay, s		0.2	\$ 436.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	156	-	-	927	-
HCM Lane V/C Ratio	1.805	-	-	0.022	-
HCM Control Delay (s)	\$ 436.4	-	-	9	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	20.8	-	-	0.1	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	19.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	38	575	5	1	678	14	8	1	1	23	1	118
Future Vol, veh/h	38	575	5	1	678	14	8	1	1	23	1	118
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	605	5	1	714	15	8	1	1	24	1	124
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	17.3	22.3	11.3	12.6
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	80%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	10%	0%	100%	97%	0%	100%	94%	1%
Vol Right, %	10%	0%	0%	3%	0%	0%	6%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	38	383	197	1	452	240	142
LT Vol	8	38	0	0	1	0	0	23
Through Vol	1	0	383	192	0	452	226	1
RT Vol	1	0	0	5	0	0	14	118
Lane Flow Rate	11	40	404	207	1	476	253	149
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.024	0.073	0.678	0.347	0.002	0.788	0.415	0.289
Departure Headway (Hd)	8.261	6.556	6.05	6.032	6.465	5.959	5.918	6.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	545	597	594	553	604	606	514
Service Time	6.045	4.31	3.803	3.785	4.216	3.71	3.668	4.729
HCM Lane V/C Ratio	0.025	0.073	0.677	0.348	0.002	0.788	0.417	0.29
HCM Control Delay	11.3	9.8	20.7	12	9.2	27.4	12.8	12.6
HCM Lane LOS	B	A	C	B	A	D	B	B
HCM 95th-tile Q	0.1	0.2	5.2	1.5	0	7.6	2	1.2



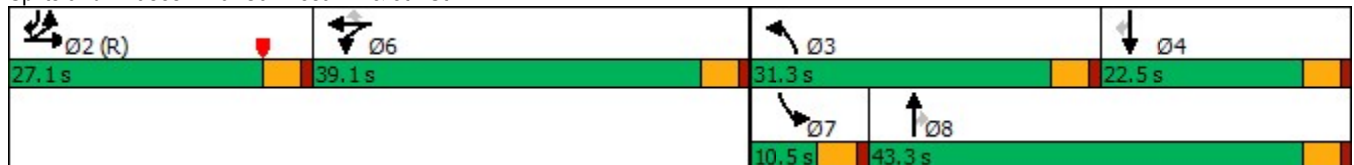
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	248	289	35	450	21	1009	530	213	25	172	452
Future Volume (vph)	248	289	35	450	21	1009	530	213	25	172	452
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	34.6	34.6	34.6	26.8	43.0	43.0	5.9	18.0	45.1
Actuated g/C Ratio	0.19	0.19	0.29	0.29	0.29	0.22	0.36	0.36	0.05	0.15	0.38
v/c Ratio	0.84	0.79	0.08	0.99	0.05	3.01	0.49	0.40	0.33	0.72	0.81
Control Delay	71.0	53.7	31.8	78.3	0.1	927.5	32.5	19.8	65.8	64.4	38.8
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	71.0	53.7	31.8	78.3	0.1	927.5	32.5	19.8	65.8	64.4	38.8
LOS	E	D	C	E	A	F	C	B	E	E	D
Approach Delay		59.5		71.8			546.2			46.6	
Approach LOS		E		E			F			D	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.01  
 Intersection Signal Delay: 299.0  
 Intersection Capacity Utilization 118.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	289	109	35	450	21	1009	530	213	25	172	452
Future Volume (veh/h)	248	289	109	35	450	21	1009	530	213	25	172	452
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	253	394	128	41	529	25	1187	624	251	29	202	532
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	511	164	514	539	457	398	1235	551	46	281	536
Arrive On Green	0.19	0.19	0.19	0.29	0.29	0.29	0.22	0.35	0.35	0.03	0.15	0.15
Sat Flow, veh/h	1781	2713	871	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	253	270	252	41	529	25	1187	624	251	29	202	532
Grp Sat Flow(s),veh/h/ln	1781	1870	1714	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	16.1	16.4	16.8	2.0	33.7	1.4	26.8	16.7	14.7	1.9	12.3	18.0
Cycle Q Clear(g_c), s	16.1	16.4	16.8	2.0	33.7	1.4	26.8	16.7	14.7	1.9	12.3	18.0
Prop In Lane	1.00		0.51	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	352	323	514	539	457	398	1235	551	46	281	536
V/C Ratio(X)	0.75	0.77	0.78	0.08	0.98	0.05	2.98	0.51	0.46	0.63	0.72	0.99
Avail Cap(c_a), veh/h	335	352	323	514	539	457	398	1235	551	89	281	536
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	46.1	46.2	46.3	31.1	42.4	30.9	46.6	31.0	30.4	57.9	48.6	32.2
Incr Delay (d2), s/veh	14.5	14.7	16.9	0.1	33.8	0.0	899.4	1.5	2.7	13.4	14.8	37.0
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	8.5	9.1	8.7	0.9	20.6	0.5	111.1	7.3	6.0	1.0	6.9	21.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	60.9	63.3	31.2	76.1	30.9	946.0	32.5	33.1	71.2	63.4	69.2
LnGrp LOS	E	E	E	C	E	C	F	C	C	E	E	E
Approach Vol, veh/h		775			595			2062			763	
Approach Delay, s/veh		61.6			71.1			558.4			67.7	
Approach LOS		E			E			F			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	31.3	22.5		39.1	7.6	46.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		18.8	28.8	20.0		35.7	3.9	18.7				
Green Ext Time (p_c), s		1.5	0.0	0.0		0.0	0.0	5.0				

Intersection Summary		
HCM 6th Ctrl Delay		308.3
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

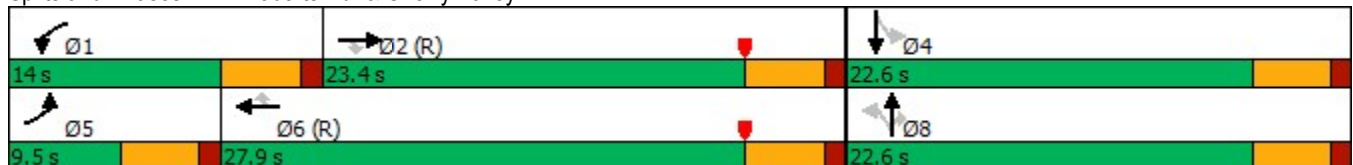
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	340	493	23	135	437	375	12	25	128	534	23
Future Volume (vph)	340	493	23	135	437	375	12	25	128	534	23
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	23.4	23.4	14.0	27.9	27.9	22.6	22.6	22.6	22.6	22.6
Total Split (%)	15.8%	39.0%	39.0%	23.3%	46.5%	46.5%	37.7%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	21.9	21.9	8.7	23.4	23.4	18.1	18.1	18.1		18.1
Actuated g/C Ratio	0.08	0.36	0.36	0.14	0.39	0.39	0.30	0.30	0.30		0.30
v/c Ratio	2.54	0.42	0.04	0.58	0.35	0.47	0.04	0.05	0.24		2.03
Control Delay	733.1	16.8	0.1	33.3	13.8	3.7	15.2	15.2	4.7		490.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	733.1	16.8	0.1	33.3	13.8	3.7	15.2	15.2	4.7		490.1
LOS	F	B	A	C	B	A	B	B	A		F
Approach Delay		301.0			12.6			7.0			490.1
Approach LOS		F			B			A			F
























Intersection Summary

Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.54	
Intersection Signal Delay: 243.1	Intersection LOS: F
Intersection Capacity Utilization 96.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	493	23	135	437	375	12	25	128	534	23	283
Future Volume (veh/h)	340	493	23	135	437	375	12	25	128	534	23	283
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	374	542	25	148	480	412	13	27	141	587	25	311
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1306	582	189	1386	618	481	564	478	345	11	131
Arrive On Green	0.08	0.37	0.37	0.11	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1044	1870	1585	820	35	434
Grp Volume(v), veh/h	374	542	25	148	480	412	13	27	141	923	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1044	1870	1585	1289	0	0
Q Serve(g_s), s	5.0	6.8	0.6	4.9	5.7	12.9	0.0	0.6	4.1	17.5	0.0	0.0
Cycle Q Clear(g_c), s	5.0	6.8	0.6	4.9	5.7	12.9	0.5	0.6	4.1	18.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.64		0.34
Lane Grp Cap(c), veh/h	148	1306	582	189	1386	618	481	564	478	487	0	0
V/C Ratio(X)	2.52	0.42	0.04	0.78	0.35	0.67	0.03	0.05	0.29	1.90	0.00	0.00
Avail Cap(c_a), veh/h	148	1306	582	282	1386	618	481	564	478	487	0	0
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	0.00
Uniform Delay (d), s/veh	27.5	14.2	12.2	26.2	12.9	15.1	14.8	14.8	16.1	23.0	0.0	0.0
Incr Delay (d2), s/veh	703.3	1.0	0.1	8.1	0.7	5.6	0.1	0.2	1.6	410.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.0	2.6	0.2	2.3	2.1	4.9	0.1	0.3	1.6	62.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	730.8	15.1	12.3	34.3	13.6	20.7	14.9	15.0	17.6	433.5	0.0	0.0
LnGrp LOS	F	B	B	C	B	C	B	B	B	F	A	A
Approach Vol, veh/h		941			1040			181			923	
Approach Delay, s/veh		299.5			19.4			17.0			433.5	
Approach LOS		F			B			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	26.5		22.6	9.5	27.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	18.9		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	6.9	8.8		20.1	7.0	14.9		6.1				
Green Ext Time (p_c), s	0.1	2.6		0.0	0.0	3.1		0.5				

Intersection Summary												
HCM 6th Ctrl Delay	228.6											
HCM 6th LOS	F											

Notes

User approved pedestrian interval to be less than phase max green.

**Intersection**

Intersection Delay, s/veh 484

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	953	203	362	500	0	0	0	0	357	0	446
Future Vol, veh/h	0	953	203	362	500	0	0	0	0	357	0	446
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1025	218	389	538	0	0	0	0	384	0	480
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	655.3	410.9	316
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	42%	44%
Vol Thru, %	82%	58%	0%
Vol Right, %	18%	0%	56%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1156	862	803
LT Vol	0	362	357
Through Vol	953	500	0
RT Vol	203	0	446
Lane Flow Rate	1243	927	863
Geometry Grp	1	1	1
Degree of Util (X)	2.391	1.832	1.628
Departure Headway (Hd)	9.834	10.89	8.929
Convergence, Y/N	Yes	Yes	Yes
Cap	385	343	414
Service Time	7.834	8.89	6.929
HCM Lane V/C Ratio	3.229	2.703	2.085
HCM Control Delay	655.3	410.9	316
HCM Lane LOS	F	F	F
HCM 95th-tile Q	68.4	40.1	38.1

Intersection												
Intersection Delay, s/veh	667.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	686	624	0	0	672	613	189	11	424	0	0	0
Future Vol, veh/h	686	624	0	0	672	613	189	11	424	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	738	671	0	0	723	659	203	12	456	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	834.8	743.7	157.9
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	30%	52%	0%
Vol Thru, %	2%	48%	52%
Vol Right, %	68%	0%	48%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	624	1310	1285
LT Vol	189	686	0
Through Vol	11	624	672
RT Vol	424	0	613
Lane Flow Rate	671	1409	1382
Geometry Grp	1	1	1
Degree of Util (X)	1.246	2.792	2.589
Departure Headway (Hd)	9.128	10.038	9.898
Convergence, Y/N	Yes	Yes	Yes
Cap	403	380	387
Service Time	7.128	8.038	7.898
HCM Lane V/C Ratio	1.665	3.708	3.571
HCM Control Delay	157.9	834.8	743.7
HCM Lane LOS	F	F	F
HCM 95th-tile Q	20.9	84.8	76.8

Intersection						
Int Delay, s/veh	81.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	426	623	994	160	72	292
Future Vol, veh/h	426	623	994	160	72	292
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	495	724	1156	186	84	340

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1342	0	-	0	2963 1249
Stage 1	-	-	-	-	1249 -
Stage 2	-	-	-	-	1714 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	514	-	-	-	~ 16 ~ 211
Stage 1	-	-	-	-	270 -
Stage 2	-	-	-	-	160 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	514	-	-	-	0 ~ 211
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	160 -

Approach	EB	WB	SB
HCM Control Delay, s	24.2	0	\$ 506.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	514	-	-	-	211
HCM Lane V/C Ratio	0.964	-	-	-	2.006
HCM Control Delay (s)	59.6	0	-	-	\$ 506.5
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	12.5	-	-	-	31.6

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	466
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	343	2	0	1343	253	0
Future Vol, veh/h	343	2	0	1343	253	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	381	2	0	1492	281	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	30.3	662.2	18.6
HCM LOS	D	F	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1343	345	253
LT Vol	0	343	0
Through Vol	1343	0	253
RT Vol	0	2	0
Lane Flow Rate	1492	383	281
Geometry Grp	1	1	1
Degree of Util (X)	2.43	0.696	0.491
Departure Headway (Hd)	5.862	9.029	8.053
Convergence, Y/N	Yes	Yes	Yes
Cap	642	406	453
Service Time	3.862	7.029	6.053
HCM Lane V/C Ratio	2.324	0.943	0.62
HCM Control Delay	662.2	30.3	18.6
HCM Lane LOS	F	D	C
HCM 95th-tile Q	114.7	5.1	2.6



Intersection						
Int Delay, s/veh	6646.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	166	211	41	106	483	61
Future Vol, veh/h	166	211	41	106	483	61
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	332	422	82	212	966	122

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2242	188	0	0	294
Stage 1	188	-	-	-	-
Stage 2	2054	-	-	-	-
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	~ 46	854	-	-	1268
Stage 1	844	-	-	-	-
Stage 2	~ 108	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	~ 8	854	-	-	1268
Mov Cap-2 Maneuver	~ 8				
Stage 1	844	-	-	-	-
Stage 2	~ 20	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay \$	18807.7	0	14.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	18	1268
HCM Lane V/C Ratio	-	-41.889	0.762	-
HCM Control Delay (s)	-	\$ 18807.7	16.3	0
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	95	7.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	2	4	568	8	15	187
Future Vol, veh/h	2	4	568	8	15	187
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	-	-	-	150	-
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	2	4	617	9	16	203

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	857	313	0	0	626	0
Stage 1	622	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	312	684	-	-	954	-
Stage 1	499	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	307	684	-	-	954	-
Mov Cap-2 Maneuver	406	-	-	-	-	-
Stage 1	499	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	557	954
HCM Lane V/C Ratio	-	-	0.012	0.017
HCM Control Delay (s)	-	-	11.5	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0.1

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	2	11	565	8	36	153
Future Vol, veh/h	2	11	565	8	36	153
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	-	-	-	150	-
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	2	12	614	9	39	166

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	863	312	0	0	623	0
Stage 1	619	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	309	685	-	-	956	-
Stage 1	500	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	296	685	-	-	956	-
Mov Cap-2 Maneuver	400	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	763	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	617	956
HCM Lane V/C Ratio	-	-	0.023	0.041
HCM Control Delay (s)	-	-	11	8.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	26	60	512	24	51	105
Future Vol, veh/h	26	60	512	24	51	105
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	-	-	-	150	-
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	28	65	557	26	55	114

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	794	292	0	0	583	0
Stage 1	570	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	341	705	-	-	989	-
Stage 1	530	-	-	-	-	-
Stage 2	813	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	322	705	-	-	989	-
Mov Cap-2 Maneuver	423	-	-	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	2.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	587	989
HCM Lane V/C Ratio	-	-	0.159	0.056
HCM Control Delay (s)	-	-	12.3	8.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	18	27	509	19	29	102
Future Vol, veh/h	18	27	509	19	29	102
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	-	-	-	150	-
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	20	29	553	21	32	111

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	739	287	0	0	574
Stage 1	564	-	-	-	-
Stage 2	175	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	368	710	-	-	997
Stage 1	534	-	-	-	-
Stage 2	855	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	356	710	-	-	997
Mov Cap-2 Maneuver	443	-	-	-	-
Stage 1	534	-	-	-	-
Stage 2	828	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	572	997
HCM Lane V/C Ratio	-	-	0.086	0.032
HCM Control Delay (s)	-	-	11.9	8.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	13	22	506	4	8	113
Future Vol, veh/h	13	22	506	4	8	113
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	-	-	-	150	-
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	14	24	550	4	9	123

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	693	277	0	0	554
Stage 1	552	-	-	-	-
Stage 2	141	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	393	721	-	-	1014
Stage 1	541	-	-	-	-
Stage 2	885	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	389	721	-	-	1014
Mov Cap-2 Maneuver	389	-	-	-	-
Stage 1	541	-	-	-	-
Stage 2	877	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	547	1014
HCM Lane V/C Ratio	-	-	0.07	0.009
HCM Control Delay (s)	-	-	12.1	8.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection												
Int Delay, s/veh	328.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	867	431	388	852	0	0	0	0	443	0	577
Future Vol, veh/h	0	867	431	388	852	0	0	0	0	443	0	577
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	953	474	426	936	0	0	0	0	482	0	627

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	1427	0	0	2978	3215	936
Stage 1	-	-	-	-	-	-	1788	1788	-
Stage 2	-	-	-	-	-	-	1190	1427	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	477	-	0	~ 16	10	~ 321
Stage 1	0	-	-	-	-	0	~ 147	133	-
Stage 2	0	-	-	-	-	0	~ 289	201	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	477	-	-	0	0	~ 321
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-
Stage 1	-	-	-	-	-	-	~ 147	0	-
Stage 2	-	-	-	-	-	-	0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	15.2	\$ 1136
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	477	-	321
HCM Lane V/C Ratio	-	-	0.894	-	3.454
HCM Control Delay (s)	-	-	48.7	0	\$ 1136
HCM Lane LOS	-	-	E	A	F
HCM 95th %tile Q(veh)	-	-	9.9	-	102.5

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 973.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	782	0	0	772	470	504
Future Vol, veh/h	782	0	0	772	470	504
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	850	0	0	839	511	548

**Major/Minor**

	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1689 850
Stage 1	-	-	-	-	850 -
Stage 2	-	-	-	-	839 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 103 ~ 360
Stage 1	-	0	0	-	~ 419 -
Stage 2	-	0	0	-	~ 424 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 103 ~ 360
Mov Cap-2 Maneuver	-	-	-	-	~ 103 -
Stage 1	-	-	-	-	~ 419 -
Stage 2	-	-	-	-	~ 424 -

**Approach**

	EB	WB	NB
HCM Control Delay, s	0	0	\$ 2525.7
HCM LOS			F

**Minor Lane/Major Mvmt**

	NBLn1	EBT	WBT
Capacity (veh/h)	163	-	-
HCM Lane V/C Ratio	6.495	-	-
HCM Control Delay (s)	\$ 2525.7	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	115.4	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection	
Intersection Delay, s/veh	791.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	158	874	254	83	797	94	262	71	51	191	130	244
Future Vol, veh/h	158	874	254	83	797	94	262	71	51	191	130	244
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	901	262	86	822	97	270	73	53	197	134	252
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1174.2	807.9	164.6	316.5
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	12%	9%	34%
Vol Thru, %	18%	68%	82%	23%
Vol Right, %	13%	20%	10%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	384	1286	974	565
LT Vol	262	158	83	191
Through Vol	71	874	797	130
RT Vol	51	254	94	244
Lane Flow Rate	396	1326	1004	582
Geometry Grp	1	1	1	1
Degree of Util (X)	1.065	3.512	2.675	1.527
Departure Headway (Hd)	28.721	17.203	20.204	22.687
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	131	225	191	169
Service Time	26.721	15.203	18.204	20.687
HCM Lane V/C Ratio	3.023	5.893	5.257	3.444
HCM Control Delay	164.6	1174.2	807.9	316.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	7.6	69.7	41.6	16.1

Intersection							
Int Delay, s/veh	52.1						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	169	742	255	63	688	151	38
Future Vol, veh/h	169	742	255	63	688	151	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	184	781	268	66	724	159	40

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	1049	0	1771	915
Stage 1	-	-	-	-	-	915	-
Stage 2	-	-	-	-	-	856	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	663	-	~ 91	331
Stage 1	-	-	-	-	-	390	-
Stage 2	-	-	-	-	-	416	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	663	-	~ 82	331
Mov Cap-2 Maneuver	-	-	-	-	-	~ 82	-
Stage 1	-	-	-	-	-	390	-
Stage 2	-	-	-	-	-	374	-

Approach	EB	WB	NB
HCM Control Delay, s		0.9	\$ 578.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	97	-	-	663	-
HCM Lane V/C Ratio	2.051	-	-	0.1	-
HCM Control Delay (s)	\$ 578.9	-	-	11	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	17.1	-	-	0.3	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	105	675	1	1	674	15	1	1	2	18	1	54
Future Vol, veh/h	105	675	1	1	674	15	1	1	2	18	1	54
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	703	1	1	702	16	1	1	2	19	1	56
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	17.8	19.7	10.4	11.2
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	25%
Vol Thru, %	25%	0%	100%	100%	0%	100%	94%	1%
Vol Right, %	50%	0%	0%	0%	0%	0%	6%	74%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	105	450	226	1	449	240	73
LT Vol	1	105	0	0	1	0	0	18
Through Vol	1	0	450	225	0	449	225	1
RT Vol	2	0	0	1	0	0	15	54
Lane Flow Rate	4	109	469	235	1	468	250	76
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.009	0.187	0.737	0.37	0.002	0.749	0.397	0.151
Departure Headway (Hd)	7.586	6.166	5.663	5.659	6.267	5.764	5.72	7.168
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	471	583	638	636	572	627	629	500
Service Time	5.338	3.894	3.391	3.388	3.996	3.493	3.449	4.913
HCM Lane V/C Ratio	0.008	0.187	0.735	0.369	0.002	0.746	0.397	0.152
HCM Control Delay	10.4	10.3	22.6	11.7	9	23.7	12.2	11.2
HCM Lane LOS	B	B	C	B	A	C	B	B
HCM 95th-tile Q	0	0.7	6.4	1.7	0	6.7	1.9	0.5

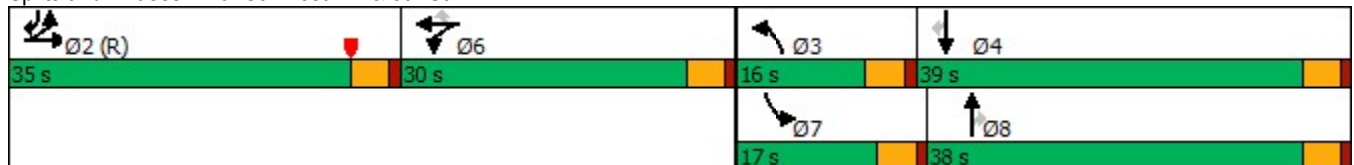
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	190	178	95	327	29	1036	414	217	34	364	502
Future Volume (vph)	190	178	95	327	29	1036	414	217	34	364	502
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	24.6	24.6	24.6	12.4	43.2	43.2	7.9	34.5	69.5
Actuated g/C Ratio	0.25	0.25	0.20	0.20	0.20	0.10	0.36	0.36	0.07	0.29	0.58
v/c Ratio	0.44	0.40	0.28	0.91	0.08	6.05	0.35	0.36	0.31	0.72	0.56
Control Delay	41.6	27.0	42.1	75.5	0.4	2296.2	30.7	16.1	59.6	47.4	15.6
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	41.6	27.0	42.1	75.5	0.4	2296.2	30.7	16.1	59.6	47.4	15.6
LOS	D	C	D	E	A	F	C	B	E	D	B
Approach Delay		31.9		63.6			1436.9			30.1	
Approach LOS		C		E			F			C	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 6.05  
 Intersection Signal Delay: 701.4  
 Intersection Capacity Utilization 118.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	178	132	95	327	29	1036	414	217	34	364	502
Future Volume (veh/h)	190	178	132	95	327	29	1036	414	217	34	364	502
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	224	140	101	348	31	1102	440	231	36	387	534
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	470	579	346	361	379	321	171	1259	561	52	538	874
Arrive On Green	0.26	0.26	0.26	0.20	0.20	0.20	0.10	0.35	0.35	0.03	0.29	0.29
Sat Flow, veh/h	1781	2192	1312	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	177	190	174	101	348	31	1102	440	231	36	387	534
Grp Sat Flow(s),veh/h/ln	1781	1870	1634	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	9.7	10.0	10.5	5.8	21.9	1.9	11.5	11.0	13.2	2.4	22.3	27.3
Cycle Q Clear(g_c), s	9.7	10.0	10.5	5.8	21.9	1.9	11.5	11.0	13.2	2.4	22.3	27.3
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	494	431	361	379	321	171	1259	561	52	538	874
V/C Ratio(X)	0.38	0.38	0.40	0.28	0.92	0.10	6.46	0.35	0.41	0.69	0.72	0.61
Avail Cap(c_a), veh/h	470	494	431	379	397	337	171	1259	561	186	538	874
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	36.2	36.4	40.4	46.9	38.9	54.3	28.6	29.3	57.7	38.4	18.2
Incr Delay (d2), s/veh	2.3	2.3	2.8	0.4	25.3	0.1	2467.4	0.8	2.2	15.3	8.1	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.9	4.6	2.6	12.9	0.8	122.1	4.8	5.3	1.3	11.3	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	38.4	39.2	40.9	72.2	39.0	2521.6	29.3	31.5	73.0	46.5	21.4
LnGrp LOS	D	D	D	D	E	D	F	C	C	E	D	C
Approach Vol, veh/h		541			480			1773				957
Approach Delay, s/veh		38.7			63.5			1578.7				33.5
Approach LOS		D			E			F				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.2	16.0	39.0		28.8	8.0	47.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		12.5	13.5	29.3		23.9	4.4	15.2				
Green Ext Time (p_c), s		2.6	0.0	2.1		0.5	0.0	3.4				

Intersection Summary		
HCM 6th Ctrl Delay		768.4
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	259	599	26	274	675	435	26	9	148	326	12
Future Volume (vph)	259	599	26	274	675	435	26	9	148	326	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	1.86	0.59	0.04	0.93	0.51	0.55	0.10	0.02	0.26	0.26	1.40
Control Delay	434.0	20.7	0.2	65.4	15.5	6.1	16.4	15.0	3.1	3.1	212.2
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	434.0	20.7	0.2	65.4	15.5	6.1	16.4	15.0	3.1	3.1	212.2
LOS	F	C	A	E	B	A	B	B	A	A	F
Approach Delay		141.3			22.4			5.5			212.2
Approach LOS		F			C			A			F

**Intersection Summary**  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.86  
 Intersection Signal Delay: 95.3  
 Intersection Capacity Utilization 89.0%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	599	26	274	675	435	26	9	148	326	12	317
Future Volume (veh/h)	259	599	26	274	675	435	26	9	148	326	12	317
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	273	631	27	288	711	458	27	9	156	343	13	334
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	1066	476	312	1392	621	408	561	476	294	8	199
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1034	1870	1585	680	26	662
Grp Volume(v), veh/h	273	631	27	288	711	458	27	9	156	690	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1034	1870	1585	1368	0	0
Q Serve(g_s), s	5.0	9.1	0.7	9.5	9.1	14.8	0.0	0.2	4.6	17.8	0.0	0.0
Cycle Q Clear(g_c), s	5.0	9.1	0.7	9.5	9.1	14.8	1.2	0.2	4.6	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.50		0.48
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	408	561	476	500	0	0
V/C Ratio(X)	1.84	0.59	0.06	0.92	0.51	0.74	0.07	0.02	0.33	1.38	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	408	561	476	500	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	17.9	15.0	24.4	13.9	15.6	15.1	14.8	16.3	22.7	0.0	0.0
Incr Delay (d2), s/veh	402.5	2.4	0.2	31.9	1.3	7.7	0.3	0.1	1.8	182.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.6	3.6	0.3	6.4	3.4	5.8	0.3	0.1	1.8	32.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	430.0	20.3	15.2	56.3	15.2	23.3	15.4	14.8	18.1	205.6	0.0	0.0
LnGrp LOS	F	C	B	E	B	C	B	B	B	F	A	A
Approach Vol, veh/h		931			1457			192			690	
Approach Delay, s/veh		140.3			25.9			17.6			205.6	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	11.5	11.1		20.0	7.0	16.8		6.6				
Green Ext Time (p_c), s	0.0	2.4		0.0	0.0	3.5		0.5				

Intersection Summary

HCM 6th Ctrl Delay	95.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

**Intersection**

Intersection Delay, s/veh 584.1  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	856	218	405	587	0	0	0	0	546	0	797
Future Vol, veh/h	0	856	218	405	587	0	0	0	0	546	0	797
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	865	220	409	593	0	0	0	0	552	0	805
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	525.5	477	710
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	41%	41%
Vol Thru, %	80%	59%	0%
Vol Right, %	20%	0%	59%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1074	992	1343
LT Vol	0	405	546
Through Vol	856	587	0
RT Vol	218	0	797
Lane Flow Rate	1085	1002	1357
Geometry Grp	1	1	1
Degree of Util (X)	2.082	1.969	2.52
Departure Headway (Hd)	12.533	12.971	8.753
Convergence, Y/N	Yes	Yes	Yes
Cap	304	291	434
Service Time	10.533	10.971	6.753
HCM Lane V/C Ratio	3.569	3.443	3.127
HCM Control Delay	525.5	477	710
HCM Lane LOS	F	F	F
HCM 95th-tile Q	44	38.9	82.8



Intersection												
Intersection Delay, s/veh	680.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	496	907	0	0	752	509	240	9	473	0	0	0
Future Vol, veh/h	496	907	0	0	752	509	240	9	473	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	522	955	0	0	792	536	253	9	498	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	889.8	707.3	226.6
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	33%	35%	0%
Vol Thru, %	1%	65%	60%
Vol Right, %	66%	0%	40%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	722	1403	1261
LT Vol	240	496	0
Through Vol	9	907	752
RT Vol	473	0	509
Lane Flow Rate	760	1477	1327
Geometry Grp	1	1	1
Degree of Util (X)	1.416	2.913	2.503
Departure Headway (Hd)	9.175	10.402	10.655
Convergence, Y/N	Yes	Yes	Yes
Cap	403	369	358
Service Time	7.175	8.402	8.655
HCM Lane V/C Ratio	1.886	4.003	3.707
HCM Control Delay	226.6	889.8	707.3
HCM Lane LOS	F	F	F
HCM 95th-tile Q	27.9	87.1	68.1

Intersection						
Int Delay, s/veh	69.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	375	1006	934	83	129	327
Future Vol, veh/h	375	1006	934	83	129	327
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	408	1093	1015	90	140	355

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1105	0	-	0	2969 1060
Stage 1	-	-	-	-	1060 -
Stage 2	-	-	-	-	1909 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	632	-	-	-	~ 16 ~ 272
Stage 1	-	-	-	-	333 -
Stage 2	-	-	-	-	~ 128 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	632	-	-	-	0 ~ 272
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	~ 128 -

Approach	EB	WB	SB
HCM Control Delay, s	5.6	0	\$ 415.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	632	-	-	-	272
HCM Lane V/C Ratio	0.645	-	-	-	1.822
HCM Control Delay (s)	20.4	0	-	-	\$ 415.6
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	4.7	-	-	-	33.5

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	390.2
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	399	1	0	1185	550	0
Future Vol, veh/h	399	1	0	1185	550	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	429	1	0	1274	591	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	46.9	639.5	102.8
HCM LOS	E	F	F

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1185	400	550
LT Vol	0	399	0
Through Vol	1185	0	550
RT Vol	0	1	0
Lane Flow Rate	1274	430	591
Geometry Grp	1	1	1
Degree of Util (X)	2.373	0.853	1.101
Departure Headway (Hd)	6.935	9.143	8.458
Convergence, Y/N	Yes	Yes	Yes
Cap	535	400	432
Service Time	4.935	7.143	6.458
HCM Lane V/C Ratio	2.381	1.075	1.368
HCM Control Delay	639.5	46.9	102.8
HCM Lane LOS	F	E	F
HCM 95th-tile Q	94	8.2	16.2

Intersection						
Int Delay, s/veh	8088.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	300	530	72	310	436	54
Future Vol, veh/h	300	530	72	310	436	54
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	500	883	120	517	727	90

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1923	379	0	0	637	0
Stage 1	379	-	-	-	-	-
Stage 2	1544	-	-	-	-	-
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	~ 74	~ 668	-	-	947	-
Stage 1	692	-	-	-	-	-
Stage 2	~ 194	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	~ 14	~ 668	-	-	947	-
Mov Cap-2 Maneuver	~ 14	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	~ 37	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, \$	16576	0	17.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	37	947
HCM Lane V/C Ratio	-	-37.387	0.767	-
HCM Control Delay (s)	-	\$ 16576	20.1	0
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	171.3	7.7

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	18	310	4	7	417
Future Vol, veh/h	10	18	310	4	7	417
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	-	-	-	150	-
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	11	20	337	4	8	453

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	808	171	0	0	341
Stage 1	339	-	-	-	-
Stage 2	469	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	334	844	-	-	1216
Stage 1	694	-	-	-	-
Stage 2	629	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	332	844	-	-	1216
Mov Cap-2 Maneuver	451	-	-	-	-
Stage 1	694	-	-	-	-
Stage 2	625	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	644	1216
HCM Lane V/C Ratio	-	-	0.047	0.006
HCM Control Delay (s)	-	-	10.9	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	10	46	267	4	18	409
Future Vol, veh/h	10	46	267	4	18	409
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	-	-	-	150	-
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	11	50	290	4	20	445

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	777	147	0	0	294
Stage 1	292	-	-	-	-
Stage 2	485	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	349	874	-	-	1266
Stage 1	733	-	-	-	-
Stage 2	618	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	343	874	-	-	1266
Mov Cap-2 Maneuver	457	-	-	-	-
Stage 1	733	-	-	-	-
Stage 2	608	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	752	1266
HCM Lane V/C Ratio	-	-	0.081	0.015
HCM Control Delay (s)	-	-	10.2	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	77	194	42	98	321
Future Vol, veh/h	35	77	194	42	98	321
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	-	-	-	150	-
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	38	84	211	46	107	349

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	797	129	0	0	257
Stage 1	234	-	-	-	-
Stage 2	563	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	339	897	-	-	1306
Stage 1	783	-	-	-	-
Stage 2	569	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	311	897	-	-	1306
Mov Cap-2 Maneuver	417	-	-	-	-
Stage 1	783	-	-	-	-
Stage 2	522	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	660	1306
HCM Lane V/C Ratio	-	-	0.184	0.082
HCM Control Delay (s)	-	-	11.7	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.3

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	27	41	195	21	32	324
Future Vol, veh/h	27	41	195	21	32	324
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	-	-	-	150	-
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	29	45	212	23	35	352

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	646	118	0	0	235
Stage 1	224	-	-	-	-
Stage 2	422	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	420	912	-	-	1331
Stage 1	793	-	-	-	-
Stage 2	661	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	409	912	-	-	1331
Mov Cap-2 Maneuver	506	-	-	-	-
Stage 1	793	-	-	-	-
Stage 2	644	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	692	1331
HCM Lane V/C Ratio	-	-	0.107	0.026
HCM Control Delay (s)	-	-	10.8	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1



Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	8	20	197	14	29	322
Future Vol, veh/h	8	20	197	14	29	322
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	-	-	-	150	-
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	9	22	214	15	32	350

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	636	115	0	0	229	0
Stage 1	222	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	426	916	-	-	1338	-
Stage 1	794	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	416	916	-	-	1338	-
Mov Cap-2 Maneuver	416	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	650	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	682	1338
HCM Lane V/C Ratio	-	-	0.045	0.024
HCM Control Delay (s)	-	-	10.5	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

**APPENDIX 6.3: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT  
SCENARIO 2 CONDITIONS INTERSECTION ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	46.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	674	334	531	465	0	0	0	0	353	0	298
Future Vol, veh/h	0	674	334	531	465	0	0	0	0	353	0	298
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	741	367	584	511	0	0	0	0	384	0	324

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1108	0	0		2604	2787	511
Stage 1	-	-	-	-	-	-		1679	1679	-
Stage 2	-	-	-	-	-	-		925	1108	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	630	-	0		~ 27	19	563
Stage 1	0	-	-	-	-	0		~ 166	151	-
Stage 2	0	-	-	-	-	0		386	286	-
Platoon blocked, %		-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	-	630	-	-		0	0	563
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 166	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	24.3	152.6
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	630	-	563
HCM Lane V/C Ratio	-	-	0.926	-	1.257
HCM Control Delay (s)	-	-	45.7	0	152.6
HCM Lane LOS	-	-	E	A	F
HCM 95th %tile Q(veh)	-	-	12.2	-	27.7

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	252.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	654	0	0	762	235	353
Future Vol, veh/h	654	0	0	762	235	353
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	703	0	0	819	253	380

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1522 703
Stage 1	-	-	-	-	703 -
Stage 2	-	-	-	-	819 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 130 438
Stage 1	-	0	0	-	491 -
Stage 2	-	0	0	-	433 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 130 438
Mov Cap-2 Maneuver	-	-	-	-	~ 130 -
Stage 1	-	-	-	-	491 -
Stage 2	-	-	-	-	433 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 859.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	225	-	-
HCM Lane V/C Ratio	2.81	-	-
HCM Control Delay (s)	\$ 859.6	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	55.2	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	756
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	171	462	375	52	807	202	441	285	172	75	45	182
Future Vol, veh/h	171	462	375	52	807	202	441	285	172	75	45	182
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	184	497	403	56	868	217	474	306	185	81	48	196
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	829.2	903.3	712	124.7
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	49%	17%	5%	25%
Vol Thru, %	32%	46%	76%	15%
Vol Right, %	19%	37%	19%	60%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	898	1008	1061	302
LT Vol	441	171	52	75
Through Vol	285	462	807	45
RT Vol	172	375	202	182
Lane Flow Rate	966	1084	1141	325
Geometry Grp	1	1	1	1
Degree of Util (X)	2.468	2.718	2.888	0.841
Departure Headway (Hd)	18.548	21.085	20.454	35.763
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	212	184	194	104
Service Time	16.548	19.085	18.454	33.763
HCM Lane V/C Ratio	4.557	5.891	5.881	3.125
HCM Control Delay	712	829.2	903.3	124.7
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	40.1	40.9	45.7	4.7

Intersection							
Int Delay, s/veh	71.7						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	30	584	81	20	819	224	52
Future Vol, veh/h	30	584	81	20	819	224	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	33	596	83	20	836	229	53

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	679	0	1514	638
Stage 1	-	-	-	-	-	638	-
Stage 2	-	-	-	-	-	876	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	913	-	~ 132	477
Stage 1	-	-	-	-	-	526	-
Stage 2	-	-	-	-	-	407	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	913	-	~ 129	477
Mov Cap-2 Maneuver	-	-	-	-	-	~ 129	-
Stage 1	-	-	-	-	-	526	-
Stage 2	-	-	-	-	-	398	-

Approach	EB	WB	NB
HCM Control Delay, s		0.2	\$ 469.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	150	-	-	913	-
HCM Lane V/C Ratio	1.878	-	-	0.022	-
HCM Control Delay (s)	\$ 469.9	-	-	9	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	21.4	-	-	0.1	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	20.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	38	593	5	1	692	14	8	1	1	23	1	118
Future Vol, veh/h	38	593	5	1	692	14	8	1	1	23	1	118
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	624	5	1	728	15	8	1	1	24	1	124
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	18.2	23.7	11.3	12.7
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	80%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	10%	0%	100%	98%	0%	100%	94%	1%
Vol Right, %	10%	0%	0%	2%	0%	0%	6%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	38	395	203	1	461	245	142
LT Vol	8	38	0	0	1	0	0	23
Through Vol	1	0	395	198	0	461	231	1
RT Vol	1	0	0	5	0	0	14	118
Lane Flow Rate	11	40	416	213	1	486	258	149
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.024	0.073	0.703	0.359	0.002	0.808	0.426	0.292
Departure Headway (Hd)	8.327	6.584	6.078	6.06	6.498	5.992	5.951	7.022
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	542	591	591	549	602	603	510
Service Time	6.117	4.343	3.836	3.818	4.253	3.747	3.706	4.789
HCM Lane V/C Ratio	0.026	0.074	0.704	0.36	0.002	0.807	0.428	0.292
HCM Control Delay	11.3	9.9	22.1	12.2	9.3	29.3	13.1	12.7
HCM Lane LOS	B	A	C	B	A	D	B	B
HCM 95th-tile Q	0.1	0.2	5.6	1.6	0	8.1	2.1	1.2



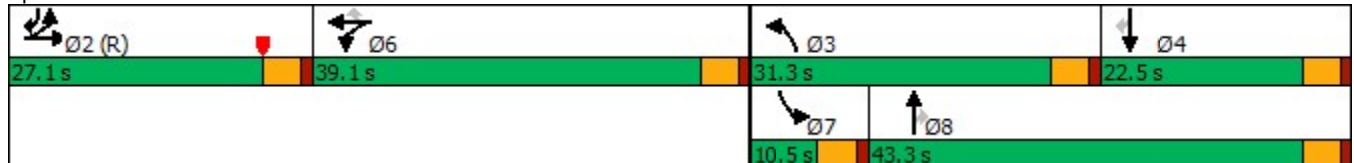
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	248	289	35	450	21	1009	548	213	25	186	452
Future Volume (vph)	248	289	35	450	21	1009	548	213	25	186	452
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	34.6	34.6	34.6	26.8	43.0	43.0	5.9	18.0	45.1
Actuated g/C Ratio	0.19	0.19	0.29	0.29	0.29	0.22	0.36	0.36	0.05	0.15	0.38
v/c Ratio	0.84	0.79	0.08	0.99	0.05	3.01	0.51	0.40	0.33	0.78	0.81
Control Delay	71.0	53.7	31.8	78.3	0.1	927.5	32.9	20.3	65.8	69.4	38.8
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	71.0	53.7	31.8	78.3	0.1	927.5	32.9	20.3	65.8	69.4	38.8
LOS	E	D	C	E	A	F	C	C	E	E	D
Approach Delay		59.5		71.8			541.2			48.4	
Approach LOS		E		E			F			D	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.01  
 Intersection Signal Delay: 297.1  
 Intersection Capacity Utilization 118.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	289	109	35	450	21	1009	548	213	25	186	452
Future Volume (veh/h)	248	289	109	35	450	21	1009	548	213	25	186	452
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	253	394	128	41	529	25	1187	645	251	29	219	532
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	511	164	514	539	457	398	1235	551	46	281	536
Arrive On Green	0.19	0.19	0.19	0.29	0.29	0.29	0.22	0.35	0.35	0.03	0.15	0.15
Sat Flow, veh/h	1781	2713	871	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	253	270	252	41	529	25	1187	645	251	29	219	532
Grp Sat Flow(s),veh/h/ln	1781	1870	1714	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	16.1	16.4	16.8	2.0	33.7	1.4	26.8	17.4	14.7	1.9	13.5	18.0
Cycle Q Clear(g_c), s	16.1	16.4	16.8	2.0	33.7	1.4	26.8	17.4	14.7	1.9	13.5	18.0
Prop In Lane	1.00		0.51	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	352	323	514	539	457	398	1235	551	46	281	536
V/C Ratio(X)	0.75	0.77	0.78	0.08	0.98	0.05	2.98	0.52	0.46	0.63	0.78	0.99
Avail Cap(c_a), veh/h	335	352	323	514	539	457	398	1235	551	89	281	536
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	46.2	46.3	31.1	42.4	30.9	46.6	31.2	30.4	57.9	49.1	32.2
Incr Delay (d2), s/veh	14.5	14.7	16.9	0.1	33.8	0.0	899.4	1.6	2.7	13.4	19.1	37.0
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	8.5	9.1	8.7	0.9	20.6	0.5	111.1	7.6	6.0	1.0	7.7	21.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	60.9	63.3	31.2	76.1	30.9	946.0	32.8	33.1	71.2	68.2	69.2
LnGrp LOS	E	E	E	C	E	C	F	C	C	E	E	E
Approach Vol, veh/h		775			595			2083			780	
Approach Delay, s/veh		61.6			71.1			553.2			69.0	
Approach LOS		E			E			F			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	31.3	22.5		39.1	7.6	46.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		18.8	28.8	20.0		35.7	3.9	19.4				
Green Ext Time (p_c), s		1.5	0.0	0.0		0.0	0.0	5.1				

Intersection Summary

HCM 6th Ctrl Delay	306.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

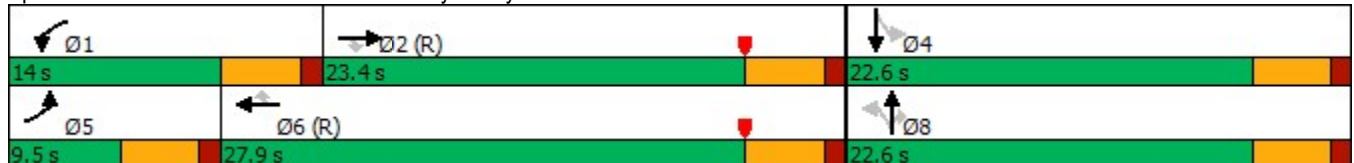
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	340	507	23	135	456	375	12	25	128	534	23
Future Volume (vph)	340	507	23	135	456	375	12	25	128	534	23
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	23.4	23.4	14.0	27.9	27.9	22.6	22.6	22.6	22.6	22.6
Total Split (%)	15.8%	39.0%	39.0%	23.3%	46.5%	46.5%	37.7%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	21.9	21.9	8.7	23.4	23.4	18.1	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.08	0.36	0.36	0.14	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	2.54	0.43	0.04	0.58	0.36	0.47	0.04	0.05	0.24	0.24	2.03
Control Delay	733.1	16.9	0.1	33.3	14.0	3.7	15.2	15.2	4.7	4.7	490.1
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	733.1	16.9	0.1	33.3	14.0	3.7	15.2	15.2	4.7	4.7	490.1
LOS	F	B	A	C	B	A	B	B	A	A	F
Approach Delay		296.7			12.7			7.0			490.1
Approach LOS		F			B			A			F
























Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.54  
 Intersection Signal Delay: 240.5  
 Intersection Capacity Utilization 97.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service F

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	507	23	135	456	375	12	25	128	534	23	283
Future Volume (veh/h)	340	507	23	135	456	375	12	25	128	534	23	283
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	374	557	25	148	501	412	13	27	141	587	25	311
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1306	582	189	1386	618	481	564	478	345	11	131
Arrive On Green	0.08	0.37	0.37	0.11	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1044	1870	1585	820	35	434
Grp Volume(v), veh/h	374	557	25	148	501	412	13	27	141	923	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1044	1870	1585	1289	0	0
Q Serve(g_s), s	5.0	7.1	0.6	4.9	6.0	12.9	0.0	0.6	4.1	17.5	0.0	0.0
Cycle Q Clear(g_c), s	5.0	7.1	0.6	4.9	6.0	12.9	0.5	0.6	4.1	18.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.64		0.34
Lane Grp Cap(c), veh/h	148	1306	582	189	1386	618	481	564	478	487	0	0
V/C Ratio(X)	2.52	0.43	0.04	0.78	0.36	0.67	0.03	0.05	0.29	1.90	0.00	0.00
Avail Cap(c_a), veh/h	148	1306	582	282	1386	618	481	564	478	487	0	0
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	0.00
Uniform Delay (d), s/veh	27.5	14.2	12.2	26.2	13.0	15.1	14.8	14.8	16.1	23.0	0.0	0.0
Incr Delay (d2), s/veh	703.3	1.0	0.1	8.1	0.7	5.6	0.1	0.2	1.6	410.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.0	2.6	0.2	2.3	2.2	4.9	0.1	0.3	1.6	62.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	730.8	15.3	12.3	34.3	13.7	20.7	14.9	15.0	17.6	433.5	0.0	0.0
LnGrp LOS	F	B	B	C	B	C	B	B	B	F	A	A
Approach Vol, veh/h		956			1061			181			923	
Approach Delay, s/veh		295.1			19.3			17.0			433.5	
Approach LOS		F			B			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	26.5		22.6	9.5	27.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	18.9		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	6.9	9.1		20.1	7.0	14.9		6.1				
Green Ext Time (p_c), s	0.1	2.6		0.0	0.0	3.1		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	226.2											
HCM 6th LOS	F											
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Intersection												
Intersection Delay, s/veh	523.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	967	203	464	518	0	0	0	0	357	0	446
Future Vol, veh/h	0	967	203	464	518	0	0	0	0	357	0	446
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1040	218	499	557	0	0	0	0	384	0	480
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	669.5	524.5	309
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	47%	44%
Vol Thru, %	83%	53%	0%
Vol Right, %	17%	0%	56%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1170	982	803
LT Vol	0	464	357
Through Vol	967	518	0
RT Vol	203	0	446
Lane Flow Rate	1258	1056	863
Geometry Grp	1	1	1
Degree of Util (X)	2.421	2.09	1.611
Departure Headway (Hd)	10.18	10.896	9.026
Convergence, Y/N	Yes	Yes	Yes
Cap	377	348	414
Service Time	8.18	8.896	7.026
HCM Lane V/C Ratio	3.337	3.034	2.085
HCM Control Delay	669.5	524.5	309
HCM Lane LOS	F	F	F
HCM 95th-tile Q	67.6	50.2	37

Intersection												
Intersection Delay, s/veh	724											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	686	638	0	0	792	613	189	11	503	0	0	0
Future Vol, veh/h	686	638	0	0	792	613	189	11	503	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	738	686	0	0	852	659	203	12	541	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	850.3	857.7	218.9
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	27%	52%	0%
Vol Thru, %	2%	48%	56%
Vol Right, %	72%	0%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	703	1324	1405
LT Vol	189	686	0
Through Vol	11	638	792
RT Vol	503	0	613
Lane Flow Rate	756	1424	1511
Geometry Grp	1	1	1
Degree of Util (X)	1.398	2.822	2.841
Departure Headway (Hd)	9.107	10.866	10.447
Convergence, Y/N	Yes	Yes	Yes
Cap	408	356	363
Service Time	7.107	8.866	8.447
HCM Lane V/C Ratio	1.853	4	4.163
HCM Control Delay	218.9	850.3	857.7
HCM Lane LOS	F	F	F
HCM 95th-tile Q	27.3	79.8	83.7

Intersection						
Int Delay, s/veh	176.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	519	623	994	174	90	412
Future Vol, veh/h	519	623	994	174	90	412
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	603	724	1156	202	105	479

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1358	0	-	0	3187 1257
Stage 1	-	-	-	-	1257 -
Stage 2	-	-	-	-	1930 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	~ 506	-	-	-	~ 11 ~ 209
Stage 1	-	-	-	-	268 -
Stage 2	-	-	-	-	124 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	~ 506	-	-	-	0 ~ 209
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	124 -

Approach	EB	WB	SB
HCM Control Delay, s	59.5	0	\$ 855
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 506	-	-	-	209
HCM Lane V/C Ratio	1.193	-	-	-	2.793
HCM Control Delay (s)	130.9	0	-	-	\$ 855
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	22.3	-	-	-	51.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	479.6
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	343	2	0	1361	267	0
Future Vol, veh/h	343	2	0	1361	267	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	381	2	0	1512	297	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	30.7	683.7	19.5
HCM LOS	D	F	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1361	345	267
LT Vol	0	343	0
Through Vol	1361	0	267
RT Vol	0	2	0
Lane Flow Rate	1512	383	297
Geometry Grp	1	1	1
Degree of Util (X)	2.478	0.699	0.518
Departure Headway (Hd)	5.899	9.114	8.116
Convergence, Y/N	Yes	Yes	Yes
Cap	635	402	448
Service Time	3.899	7.114	6.116
HCM Lane V/C Ratio	2.381	0.953	0.663
HCM Control Delay	683.7	30.7	19.5
HCM Lane LOS	F	D	C
HCM 95th-tile Q	117.6	5.2	2.9



Intersection						
Int Delay, s/veh	6646.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	166	211	41	106	483	61
Future Vol, veh/h	166	211	41	106	483	61
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	332	422	82	212	966	122

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2242	188	0	0	294
Stage 1	188	-	-	-	-
Stage 2	2054	-	-	-	-
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	~ 46	854	-	-	1268
Stage 1	844	-	-	-	-
Stage 2	~ 108	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	~ 8	854	-	-	1268
Mov Cap-2 Maneuver	~ 8	-	-	-	-
Stage 1	844	-	-	-	-
Stage 2	~ 20	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay \$	18807.7	0	14.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	18	1268
HCM Lane V/C Ratio	-	-41.889	0.762	-
HCM Control Delay (s)	-	\$ 18807.7	16.3	0
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	95	7.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	26	50	845	26	50	402
Future Vol, veh/h	26	50	845	26	50	402
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	-	-	-	150	-
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	28	54	918	28	54	437

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1477	473	0	0	946
Stage 1	932	-	-	-	-
Stage 2	545	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	127	538	-	-	723
Stage 1	345	-	-	-	-
Stage 2	580	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	117	538	-	-	723
Mov Cap-2 Maneuver	242	-	-	-	-
Stage 1	345	-	-	-	-
Stage 2	537	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	379	723
HCM Lane V/C Ratio	-	-	0.218	0.075
HCM Control Delay (s)	-	-	17.1	10.4
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.8	0.2

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↓		Y	↑
Traffic Vol, veh/h	26	125	745	26	125	303
Future Vol, veh/h	26	125	745	26	125	303
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	-	-	-	150	-
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	28	136	810	28	136	329

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1425	419	0	0	838
Stage 1	824	-	-	-	-
Stage 2	601	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	137	584	-	-	794
Stage 1	392	-	-	-	-
Stage 2	546	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	114	584	-	-	794
Mov Cap-2 Maneuver	243	-	-	-	-
Stage 1	392	-	-	-	-
Stage 2	453	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	3.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	470	794
HCM Lane V/C Ratio	-	-	0.349	0.171
HCM Control Delay (s)	-	-	16.7	10.5
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	1.5	0.6

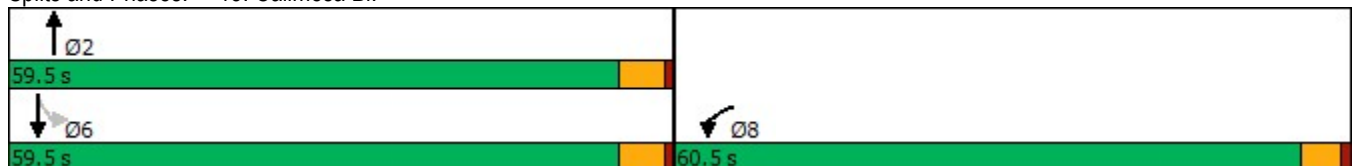
Timings  
15: Calimesa Bl.

	↙	↑	↘	↓
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations	↙	↑↔	↘	↑
Traffic Volume (vph)	72	618	123	206
Future Volume (vph)	72	618	123	206
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.6	23.1	23.1	23.1
Total Split (s)	60.5	59.5	59.5	59.5
Total Split (%)	50.4%	49.6%	49.6%	49.6%
Yellow Time (s)	3.6	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	5.1
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min
Act Effct Green (s)	8.9	17.4	17.4	17.4
Actuated g/C Ratio	0.24	0.48	0.48	0.48
v/c Ratio	0.49	0.44	0.40	0.25
Control Delay	10.3	7.6	11.7	7.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.3	7.6	11.7	7.2
LOS	B	A	B	A
Approach Delay	10.3	7.6		8.9
Approach LOS	B	A		A












Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 36.4  
 Natural Cycle: 50  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.49  
 Intersection Signal Delay: 8.4  
 Intersection LOS: A  
 Intersection Capacity Utilization 51.5%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 15: Calimesa Bl.



HCM 6th Signalized Intersection Summary  
15: Calimesa Bl.

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	72	153	618	59	123	206
Future Volume (veh/h)	72	153	618	59	123	206
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	78	166	672	64	134	224
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	101	215	1503	143	488	857
Arrive On Green	0.19	0.19	0.46	0.46	0.46	0.46
Sat Flow, veh/h	523	1114	3373	312	722	1870
Grp Volume(v), veh/h	245	0	364	372	134	224
Grp Sat Flow(s),veh/h/ln	1644	0	1777	1814	722	1870
Q Serve(g_s), s	3.9	0.0	3.9	3.9	4.3	2.1
Cycle Q Clear(g_c), s	3.9	0.0	3.9	3.9	8.2	2.1
Prop In Lane	0.32	0.68		0.17	1.00	
Lane Grp Cap(c), veh/h	318	0	814	831	488	857
V/C Ratio(X)	0.77	0.00	0.45	0.45	0.27	0.26
Avail Cap(c_a), veh/h	3298	0	3470	3543	1567	3653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	5.1	5.1	7.9	4.6
Incr Delay (d2), s/veh	1.5	0.0	0.4	0.4	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.6	0.6	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.1	0.0	5.5	5.5	8.2	4.8
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	245		736		358	
Approach Delay, s/veh	12.1		5.5		6.1	
Approach LOS	B		A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		17.9			17.9	10.0
Change Period (Y+Rc), s		5.1			5.1	4.6
Max Green Setting (Gmax), s		54.4			54.4	55.9
Max Q Clear Time (g_c+I1), s		5.9			10.2	5.9
Green Ext Time (p_c), s		5.1			2.5	0.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			6.9			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	96	581	55	83	196
Future Vol, veh/h	64	96	581	55	83	196
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	-	-	-	150	-
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	70	104	632	60	90	213

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1055	346	0	0	692	0
Stage 1	662	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	235	651	-	-	901	-
Stage 1	476	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	212	651	-	-	901	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	613	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.9	0	2.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	476	901
HCM Lane V/C Ratio	-	-	0.365	0.1
HCM Control Delay (s)	-	-	16.9	9.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.7	0.3

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	13	22	614	4	8	252
Future Vol, veh/h	13	22	614	4	8	252
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	-	-	-	150	-
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	14	24	667	4	9	274

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	961	336	0	0	671	0
Stage 1	669	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	269	661	-	-	917	-
Stage 1	472	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	266	661	-	-	917	-
Mov Cap-2 Maneuver	266	-	-	-	-	-
Stage 1	472	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	426	917
HCM Lane V/C Ratio	-	-	0.089	0.009
HCM Control Delay (s)	-	-	14.3	9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection												
Int Delay, s/veh	480.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	887	431	400	856	0	0	0	0	658	0	577
Future Vol, veh/h	0	887	431	400	856	0	0	0	0	658	0	577
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	975	474	440	941	0	0	0	0	715	0	627

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1449	0	0		3033	3270	941
Stage 1	-	-	-	-	-	-		1821	1821	-
Stage 2	-	-	-	-	-	-		1212	1449	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	467	-	0		~ 14	9	~ 319
Stage 1	0	-	-	-	-	0		~ 141	128	-
Stage 2	0	-	-	-	-	0		~ 282	196	-
Platoon blocked, %	-	-	-	-	-	-		-	-	-
Mov Cap-1 Maneuver	-	-	-	467	-	-		0	0	~ 319
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 141	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	18.5	\$ 1474.6
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	467	-	319
HCM Lane V/C Ratio	-	-	0.941	-	4.208
HCM Control Delay (s)	-	-	58.1	\$ 1474.6	
HCM Lane LOS	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	11.2	-	131.7

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



**Intersection**

Int Delay, s/veh 1469.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	1017	0	0	788	470	578
Future Vol, veh/h	1017	0	0	788	470	578
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	1105	0	0	857	511	628

**Major/Minor**

	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1962 1105
Stage 1	-	-	-	-	1105 -
Stage 2	-	-	-	-	857 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 70 ~ 256
Stage 1	-	0	0	-	~ 317 -
Stage 2	-	0	0	-	~ 416 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 70 ~ 256
Mov Cap-2 Maneuver	-	-	-	-	~ 70 -
Stage 1	-	-	-	-	~ 317 -
Stage 2	-	-	-	-	~ 416 -

**Approach**

	EB	WB	NB
HCM Control Delay, s	0	0	\$ 4001
HCM LOS			F

**Minor Lane/Major Mvmt**

	NBLn1	EBT	WBT
Capacity (veh/h)	117	-	-
HCM Lane V/C Ratio	9.736	-	-
HCM Control Delay (s)	\$ 4001	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	131	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	995.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	158	874	563	103	797	94	313	74	54	191	150	244
Future Vol, veh/h	158	874	563	103	797	94	313	74	54	191	150	244
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	901	580	106	822	97	323	76	56	197	155	252
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1535.3	844.4	232.5	354.4
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	71%	10%	10%	33%
Vol Thru, %	17%	55%	80%	26%
Vol Right, %	12%	35%	9%	42%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	441	1595	994	585
LT Vol	313	158	103	191
Through Vol	74	874	797	150
RT Vol	54	563	94	244
Lane Flow Rate	455	1644	1025	603
Geometry Grp	1	1	1	1
Degree of Util (X)	1.225	4.311	2.731	1.582
Departure Headway (Hd)	33.633	18.569	24.912	27.966
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	114	214	164	139
Service Time	31.633	16.569	22.912	25.966
HCM Lane V/C Ratio	3.991	7.682	6.25	4.338
HCM Control Delay	232.5	1535.3	844.4	354.4
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	8.7	84	35.4	14.6

Intersection							
Int Delay, s/veh	55.3						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	169	745	255	63	708	151	38
Future Vol, veh/h	169	745	255	63	708	151	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	184	784	268	66	745	159	40

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	1052	0	1795	918
Stage 1	-	-	-	-	-	918	-
Stage 2	-	-	-	-	-	877	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	662	-	~ 88	329
Stage 1	-	-	-	-	-	389	-
Stage 2	-	-	-	-	-	407	-
Platoon blocked, %		-	-	-		-	
Mov Cap-1 Maneuver	-	-	-	662	-	~ 79	329
Mov Cap-2 Maneuver	-	-	-	-	-	~ 79	-
Stage 1	-	-	-	-	-	389	-
Stage 2	-	-	-	-	-	366	-

Approach	EB	WB	NB
HCM Control Delay, s		0.9	\$ 620.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	93	-	-	662	-
HCM Lane V/C Ratio	2.139	-	-	0.1	-
HCM Control Delay (s)	\$ 620.9	-	-	11	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	17.5	-	-	0.3	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕			↕			↕	
Traffic Vol, veh/h	105	678	1	1	694	15	1	1	2	18	1	54
Future Vol, veh/h	105	678	1	1	694	15	1	1	2	18	1	54
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	706	1	1	723	16	1	1	2	19	1	56
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	18.2	20.9	10.5	11.3
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	25%
Vol Thru, %	25%	0%	100%	100%	0%	100%	94%	1%
Vol Right, %	50%	0%	0%	0%	0%	0%	6%	74%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	105	452	227	1	463	246	73
LT Vol	1	105	0	0	1	0	0	18
Through Vol	1	0	452	226	0	463	231	1
RT Vol	2	0	0	1	0	0	15	54
Lane Flow Rate	4	109	471	236	1	482	257	76
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.009	0.188	0.744	0.374	0.002	0.773	0.408	0.152
Departure Headway (Hd)	7.625	6.193	5.69	5.687	6.275	5.772	5.729	7.206
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	469	580	636	634	571	627	629	497
Service Time	5.383	3.926	3.422	3.419	4.008	3.505	3.462	4.955
HCM Lane V/C Ratio	0.009	0.188	0.741	0.372	0.002	0.769	0.409	0.153
HCM Control Delay	10.5	10.4	23.2	11.8	9	25.5	12.4	11.3
HCM Lane LOS	B	B	C	B	A	D	B	B
HCM 95th-tile Q	0	0.7	6.6	1.7	0	7.2	2	0.5

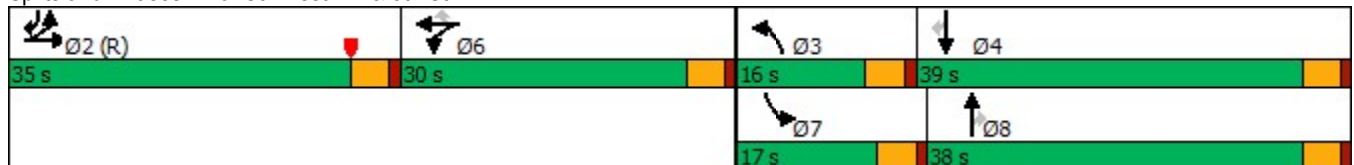
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	190	178	95	327	29	1036	417	217	34	384	502
Future Volume (vph)	190	178	95	327	29	1036	417	217	34	384	502
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	24.6	24.6	24.6	12.4	43.2	43.2	7.9	34.5	69.5
Actuated g/C Ratio	0.25	0.25	0.20	0.20	0.20	0.10	0.36	0.36	0.07	0.29	0.58
v/c Ratio	0.44	0.40	0.28	0.91	0.08	6.05	0.35	0.36	0.31	0.76	0.56
Control Delay	41.6	27.0	42.1	75.5	0.4	2296.2	30.7	16.2	59.6	49.8	15.6
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	41.6	27.0	42.1	75.5	0.4	2296.2	30.7	16.2	59.6	49.8	15.6
LOS	D	C	D	E	A	F	C	B	E	D	B
Approach Delay		31.9		63.6			1433.8			31.5	
Approach LOS		C		E			F			C	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 6.05  
 Intersection Signal Delay: 697.2  
 Intersection Capacity Utilization 119.6%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	178	132	95	327	29	1036	417	217	34	384	502
Future Volume (veh/h)	190	178	132	95	327	29	1036	417	217	34	384	502
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	224	140	101	348	31	1102	444	231	36	409	534
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	470	579	346	361	379	321	171	1259	561	52	538	874
Arrive On Green	0.26	0.26	0.26	0.20	0.20	0.20	0.10	0.35	0.35	0.03	0.29	0.29
Sat Flow, veh/h	1781	2192	1312	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	177	190	174	101	348	31	1102	444	231	36	409	534
Grp Sat Flow(s),veh/h/ln	1781	1870	1634	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	9.7	10.0	10.5	5.8	21.9	1.9	11.5	11.1	13.2	2.4	23.9	27.3
Cycle Q Clear(g_c), s	9.7	10.0	10.5	5.8	21.9	1.9	11.5	11.1	13.2	2.4	23.9	27.3
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	494	431	361	379	321	171	1259	561	52	538	874
V/C Ratio(X)	0.38	0.38	0.40	0.28	0.92	0.10	6.46	0.35	0.41	0.69	0.76	0.61
Avail Cap(c_a), veh/h	470	494	431	379	397	337	171	1259	561	186	538	874
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	36.1	36.2	36.4	40.4	46.9	38.9	54.3	28.6	29.3	57.7	39.0	18.2
Incr Delay (d2), s/veh	2.3	2.3	2.8	0.4	25.3	0.1	2467.4	0.8	2.2	15.3	9.8	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.9	4.6	2.6	12.9	0.8	122.1	4.8	5.3	1.3	12.2	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	38.4	39.2	40.9	72.2	39.0	2521.6	29.4	31.5	73.0	48.7	21.4
LnGrp LOS	D	D	D	D	E	D	F	C	C	E	D	C
Approach Vol, veh/h		541			480			1777			979	
Approach Delay, s/veh		38.7			63.5			1575.2			34.7	
Approach LOS		D			E			F			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.2	16.0	39.0		28.8	8.0	47.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		12.5	13.5	29.3		23.9	4.4	15.2				
Green Ext Time (p_c), s		2.6	0.0	2.2		0.5	0.0	3.5				

Intersection Summary		
HCM 6th Ctrl Delay		763.7
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

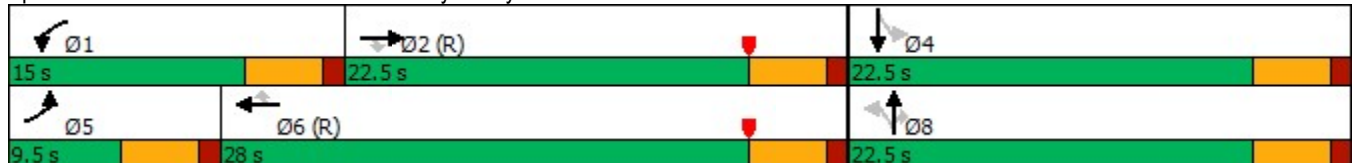
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	259	619	26	274	678	435	26	9	148	326	12
Future Volume (vph)	259	619	26	274	678	435	26	9	148	326	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	1.86	0.61	0.04	0.93	0.52	0.55	0.10	0.02	0.26	0.26	1.40
Control Delay	434.0	21.0	0.2	65.4	15.6	6.2	16.4	15.0	3.1	3.1	212.2
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	434.0	21.0	0.2	65.4	15.6	6.2	16.4	15.0	3.1	3.1	212.2
LOS	F	C	A	E	B	A	B	B	A	A	F
Approach Delay		138.8			22.5			5.5			212.2
Approach LOS		F			C			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.86  
 Intersection Signal Delay: 94.9  
 Intersection Capacity Utilization 89.1%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	619	26	274	678	435	26	9	148	326	12	317
Future Volume (veh/h)	259	619	26	274	678	435	26	9	148	326	12	317
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	273	652	27	288	714	458	27	9	156	343	13	334
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	1066	476	312	1392	621	408	561	476	294	8	199
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1034	1870	1585	680	26	662
Grp Volume(v), veh/h	273	652	27	288	714	458	27	9	156	690	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1034	1870	1585	1368	0	0
Q Serve(g_s), s	5.0	9.4	0.7	9.5	9.2	14.8	0.0	0.2	4.6	17.8	0.0	0.0
Cycle Q Clear(g_c), s	5.0	9.4	0.7	9.5	9.2	14.8	1.2	0.2	4.6	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.50		0.48
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	408	561	476	500	0	0
V/C Ratio(X)	1.84	0.61	0.06	0.92	0.51	0.74	0.07	0.02	0.33	1.38	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	408	561	476	500	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	18.0	15.0	24.4	13.9	15.6	15.1	14.8	16.3	22.7	0.0	0.0
Incr Delay (d2), s/veh	402.5	2.6	0.2	31.9	1.4	7.7	0.3	0.1	1.8	182.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.6	3.8	0.3	6.4	3.4	5.8	0.3	0.1	1.8	32.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	430.0	20.6	15.2	56.3	15.2	23.3	15.4	14.8	18.1	205.6	0.0	0.0
LnGrp LOS	F	C	B	E	B	C	B	B	B	F	A	A
Approach Vol, veh/h		952			1460			192			690	
Approach Delay, s/veh		137.9			25.9			17.6			205.6	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	11.5	11.4		20.0	7.0	16.8		6.6				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	3.5		0.5				

Intersection Summary												
HCM 6th Ctrl Delay											95.4	
HCM 6th LOS											F	

Notes

User approved pedestrian interval to be less than phase max green.



<b>Intersection</b>												
Intersection Delay, s/veh	598.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	876	218	423	590	0	0	0	0	546	0	797
Future Vol, veh/h	0	876	218	423	590	0	0	0	0	546	0	797
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	885	220	427	596	0	0	0	0	552	0	805
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	543.5	498.4	718.1
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	42%	41%
Vol Thru, %	80%	58%	0%
Vol Right, %	20%	0%	59%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1094	1013	1343
LT Vol	0	423	546
Through Vol	876	590	0
RT Vol	218	0	797
Lane Flow Rate	1105	1023	1357
Geometry Grp	1	1	1
Degree of Util (X)	2.122	2.017	2.538
Departure Headway (Hd)	12.677	13.101	8.801
Convergence, Y/N	Yes	Yes	Yes
Cap	298	287	434
Service Time	10.677	11.101	6.801
HCM Lane V/C Ratio	3.708	3.564	3.127
HCM Control Delay	543.5	498.4	718.1
HCM Lane LOS	F	F	F
HCM 95th-tile Q	44.9	40.1	83.3

Intersection												
Intersection Delay, s/veh	704.6											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	496	927	0	0	774	509	240	9	584	0	0	0
Future Vol, veh/h	496	927	0	0	774	509	240	9	584	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	522	976	0	0	815	536	253	9	615	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	910.3	729.3	315
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	29%	35%	0%
Vol Thru, %	1%	65%	60%
Vol Right, %	70%	0%	40%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	833	1423	1283
LT Vol	240	496	0
Through Vol	9	927	774
RT Vol	584	0	509
Lane Flow Rate	877	1498	1351
Geometry Grp	1	1	1
Degree of Util (X)	1.624	2.955	2.548
Departure Headway (Hd)	9.143	11.103	11.391
Convergence, Y/N	Yes	Yes	Yes
Cap	403	345	338
Service Time	7.143	9.103	9.391
HCM Lane V/C Ratio	2.176	4.342	3.997
HCM Control Delay	315	910.3	729.3
HCM Lane LOS	F	F	F
HCM 95th-tile Q	37.2	83.5	65.7

Intersection						
Int Delay, s/veh	81.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	506	1006	934	103	132	349
Future Vol, veh/h	506	1006	934	103	132	349
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	550	1093	1015	112	143	379

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1127	0	-	0	3264 1071
Stage 1	-	-	-	-	1071 -
Stage 2	-	-	-	-	2193 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	620	-	-	-	~ 10 ~ 268
Stage 1	-	-	-	-	329 -
Stage 2	-	-	-	-	~ 91 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	620	-	-	-	0 ~ 268
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	~ 91 -

Approach	EB	WB	SB
HCM Control Delay, s	13.3	0	\$ 472.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	620	-	-	-	268
HCM Lane V/C Ratio	0.887	-	-	-	1.951
HCM Control Delay (s)	39.8	0	-	-	\$ 472.3
HCM Lane LOS	E	A	-	-	F
HCM 95th %tile Q(veh)	10.6	-	-	-	37.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	386.7
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	399	1	0	1188	570	0
Future Vol, veh/h	399	1	0	1188	570	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	429	1	0	1277	613	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	47.6	630.3	117
HCM LOS	E	F	F

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1188	400	570
LT Vol	0	399	0
Through Vol	1188	0	570
RT Vol	0	1	0
Lane Flow Rate	1277	430	613
Geometry Grp	1	1	1
Degree of Util (X)	2.352	0.858	1.143
Departure Headway (Hd)	6.997	9.132	8.447
Convergence, Y/N	Yes	Yes	Yes
Cap	537	400	435
Service Time	4.997	7.132	6.447
HCM Lane V/C Ratio	2.378	1.075	1.409
HCM Control Delay	630.3	47.6	117
HCM Lane LOS	F	E	F
HCM 95th-tile Q	91.9	8.3	17.9

Intersection						
Int Delay, s/veh	8088.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	300	530	72	310	436	54
Future Vol, veh/h	300	530	72	310	436	54
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	500	883	120	517	727	90

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1923	379	0	0	637	0
Stage 1	379	-	-	-	-	-
Stage 2	1544	-	-	-	-	-
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	~ 74	~ 668	-	-	947	-
Stage 1	692	-	-	-	-	-
Stage 2	~ 194	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	~ 14	~ 668	-	-	947	-
Mov Cap-2 Maneuver	~ 14	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	~ 37	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, \$	16576	0	17.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	37	947
HCM Lane V/C Ratio	-	-37.387	0.767	-
HCM Control Delay (s)	-	\$ 16576	20.1	0
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	171.3	7.7

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	14	27	359	29	57	716
Future Vol, veh/h	14	27	359	29	57	716
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	-	-	-	150	-
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	15	29	390	32	62	778

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1308	211	0	0	422
Stage 1	406	-	-	-	-
Stage 2	902	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	163	795	-	-	1135
Stage 1	642	-	-	-	-
Stage 2	395	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	154	795	-	-	1135
Mov Cap-2 Maneuver	279	-	-	-	-
Stage 1	642	-	-	-	-
Stage 2	373	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	487	1135
HCM Lane V/C Ratio	-	-	0.092	0.055
HCM Control Delay (s)	-	-	13.1	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	14	67	322	29	141	589
Future Vol, veh/h	14	67	322	29	141	589
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	-	-	-	150	-
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	15	73	350	32	153	640

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1312	191	0	0	382
Stage 1	366	-	-	-	-
Stage 2	946	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	162	819	-	-	1175
Stage 1	673	-	-	-	-
Stage 2	376	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	141	819	-	-	1175
Mov Cap-2 Maneuver	255	-	-	-	-
Stage 1	673	-	-	-	-
Stage 2	327	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	592	1175
HCM Lane V/C Ratio	-	-	0.149	0.13
HCM Control Delay (s)	-	-	12.1	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4

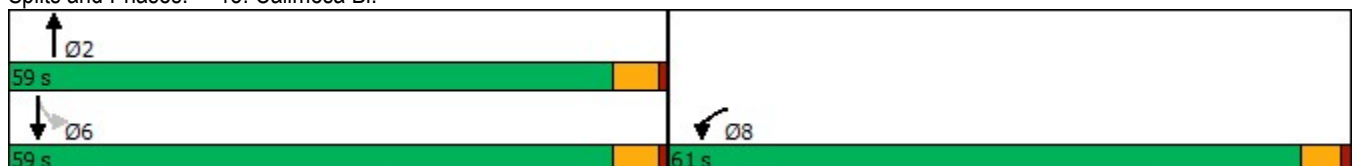
Timings  
15: Calimesa Bl.

	↙	↑	↘	↓
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations	↙	↑↔	↘	↑
Traffic Volume (vph)	44	257	198	404
Future Volume (vph)	44	257	198	404
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	23.1
Total Split (s)	61.0	59.0	59.0	59.0
Total Split (%)	50.8%	49.2%	49.2%	49.2%
Yellow Time (s)	3.6	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	5.1
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	6.8	15.9	15.9	15.9
Actuated g/C Ratio	0.24	0.57	0.57	0.57
v/c Ratio	0.31	0.19	0.38	0.41
Control Delay	7.2	4.4	8.3	7.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.2	4.4	8.3	7.0
LOS	A	A	A	A
Approach Delay	7.2	4.4		7.4
Approach LOS	A	A		A

Intersection Summary












Cycle Length: 120  
 Actuated Cycle Length: 27.8  
 Natural Cycle: 50  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.41  
 Intersection Signal Delay: 6.4  
 Intersection LOS: A  
 Intersection Capacity Utilization 41.6%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 15: Calimesa Bl.





HCM 6th Signalized Intersection Summary  
15: Calimesa Bl.

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	44	94	257	92	198	404
Future Volume (veh/h)	44	94	257	92	198	404
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	48	102	279	100	215	439
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	68	145	1228	430	704	890
Arrive On Green	0.13	0.13	0.48	0.48	0.48	0.48
Sat Flow, veh/h	523	1111	2674	904	1004	1870
Grp Volume(v), veh/h	151	0	190	189	215	439
Grp Sat Flow(s),veh/h/ln	1644	0	1777	1708	1004	1870
Q Serve(g_s), s	2.2	0.0	1.5	1.6	4.0	4.0
Cycle Q Clear(g_c), s	2.2	0.0	1.5	1.6	5.6	4.0
Prop In Lane	0.32	0.68		0.53	1.00	
Lane Grp Cap(c), veh/h	215	0	846	813	704	890
V/C Ratio(X)	0.70	0.00	0.22	0.23	0.31	0.49
Avail Cap(c_a), veh/h	3761	0	3884	3733	2421	4088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	3.8	3.8	5.4	4.4
Incr Delay (d2), s/veh	1.6	0.0	0.1	0.1	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	0.1	0.3	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	0.0	3.9	4.0	5.7	4.8
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	151		379			654
Approach Delay, s/veh	11.8		3.9			5.1
Approach LOS	B		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		16.8			16.8	7.8
Change Period (Y+Rc), s		5.1			5.1	4.6
Max Green Setting (Gmax), s		53.9			53.9	56.4
Max Q Clear Time (g_c+I1), s		3.6			7.6	4.2
Green Ext Time (p_c), s		2.4			4.2	0.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			5.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	35	53	296	71	107	340
Future Vol, veh/h	35	53	296	71	107	340
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	-	-	-	150	-
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	38	58	322	77	116	370

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	963	200	0	0	399
Stage 1	361	-	-	-	-
Stage 2	602	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	268	808	-	-	1158
Stage 1	677	-	-	-	-
Stage 2	546	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	241	808	-	-	1158
Mov Cap-2 Maneuver	365	-	-	-	-
Stage 1	677	-	-	-	-
Stage 2	491	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	545	1158
HCM Lane V/C Ratio	-	-	0.176	0.1
HCM Control Delay (s)	-	-	13	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.3

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	8	20	348	14	29	347
Future Vol, veh/h	8	20	348	14	29	347
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	-	-	-	150	-
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	9	22	378	15	32	377

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	827	197	0	0	393
Stage 1	386	-	-	-	-
Stage 2	441	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	325	812	-	-	1164
Stage 1	657	-	-	-	-
Stage 2	648	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	316	812	-	-	1164
Mov Cap-2 Maneuver	316	-	-	-	-
Stage 1	657	-	-	-	-
Stage 2	631	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	561	1164
HCM Lane V/C Ratio	-	-	0.054	0.027
HCM Control Delay (s)	-	-	11.8	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

**APPENDIX 6.4: SUNDAY INTERIM YEAR CUMULATIVE (2028) WITH PA3  
CHURCH CONDITIONS INTERSECTION ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	2007.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	560	238	308	608	0	0	0	0	228	0	314
Future Vol, veh/h	0	560	238	308	608	0	0	0	0	228	0	314
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	636	270	350	691	0	0	0	0	248	0	341

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	906	0	0		2162	2297	691
Stage 1	-	-	-	-	-	-		1391	1391	-
Stage 2	-	-	-	-	-	-		771	906	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	751	-	0		~ 52	39	445
Stage 1	0	-	-	-	-	0		~ 231	209	-
Stage 2	0	-	-	-	-	0		456	355	-
Platoon blocked, %		-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	-	751	-	-		~ 13	0	445
Mov Cap-2 Maneuver	-	-	-	-	-	-		~ 13	0	-
Stage 1	-	-	-	-	-	-		~ 231	0	-
Stage 2	-	-	-	-	-	-		~ 111	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	4.7	\$ 8636.5
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	751	-	30
HCM Lane V/C Ratio	-	-	0.466	-	19.638
HCM Control Delay (s)	-	-	13.9	\$ 8636.5	
HCM Lane LOS	-	-	B	A	F
HCM 95th %tile Q(veh)	-	-	2.5	-	72.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	200.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	527	0	0	618	299	269
Future Vol, veh/h	527	0	0	618	299	269
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	573	0	0	672	325	292

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1245 573
Stage 1	-	-	-	-	573 -
Stage 2	-	-	-	-	672 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 192 519
Stage 1	-	0	0	-	564 -
Stage 2	-	0	0	-	508 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 192 519
Mov Cap-2 Maneuver	-	-	-	-	~ 192 -
Stage 1	-	-	-	-	564 -
Stage 2	-	-	-	-	508 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 604.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	274	-	-
HCM Lane V/C Ratio	2.253	-	-
HCM Control Delay (s)	\$ 604.8	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	47.8	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	363.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	116	514	165	66	560	122	150	83	71	118	104	106
Future Vol, veh/h	116	514	165	66	560	122	150	83	71	118	104	106
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	547	176	70	596	130	160	88	76	126	111	113
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	509.5	458.4	62.4	69.6
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	49%	15%	9%	36%
Vol Thru, %	27%	65%	75%	32%
Vol Right, %	23%	21%	16%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	304	795	748	328
LT Vol	150	116	66	118
Through Vol	83	514	560	104
RT Vol	71	165	122	106
Lane Flow Rate	323	846	796	349
Geometry Grp	1	1	1	1
Degree of Util (X)	0.83	2.055	1.937	0.879
Departure Headway (Hd)	14.574	11.09	11.375	14.176
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	252	338	326	258
Service Time	12.574	9.09	9.375	12.176
HCM Lane V/C Ratio	1.282	2.503	2.442	1.353
HCM Control Delay	62.4	509.5	458.4	69.6
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	6.5	48	42.5	7.4



Intersection							
Int Delay, s/veh	28.1						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	34	478	195	46	547	186	44
Future Vol, veh/h	34	478	195	46	547	186	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	37	503	205	48	576	196	46

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	708	0	1278	606
Stage 1	-	-	-	-	-	606	-
Stage 2	-	-	-	-	-	672	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	891	-	~ 183	497
Stage 1	-	-	-	-	-	545	-
Stage 2	-	-	-	-	-	508	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	891	-	~ 173	497
Mov Cap-2 Maneuver	-	-	-	-	-	~ 173	-
Stage 1	-	-	-	-	-	545	-
Stage 2	-	-	-	-	-	481	-

Approach	EB	WB	NB
HCM Control Delay, s		0.7	185.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	198	-	-	891	-
HCM Lane V/C Ratio	1.223	-	-	0.054	-
HCM Control Delay (s)	185.2	-	-	9.3	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	12.7	-	-	0.2	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	48	437	1	1	540	6	2	1	1	8	1	61
Future Vol, veh/h	48	437	1	1	540	6	2	1	1	8	1	61
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	480	1	1	593	7	2	1	1	9	1	67
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	11.7	13.6	9.9	10
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	50%	100%	0%	0%	100%	0%	0%	11%
Vol Thru, %	25%	0%	100%	99%	0%	100%	97%	1%
Vol Right, %	25%	0%	0%	1%	0%	0%	3%	87%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	48	291	147	1	360	186	70
LT Vol	2	48	0	0	1	0	0	8
Through Vol	1	0	291	146	0	360	180	1
RT Vol	1	0	0	1	0	0	6	61
Lane Flow Rate	4	53	320	161	1	396	204	77
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.009	0.086	0.476	0.239	0.002	0.582	0.299	0.136
Departure Headway (Hd)	7.175	5.856	5.354	5.349	5.798	5.296	5.273	6.35
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	607	666	666	612	676	675	568
Service Time	4.879	3.642	3.139	3.134	3.579	3.076	3.054	4.05
HCM Lane V/C Ratio	0.008	0.087	0.48	0.242	0.002	0.586	0.302	0.136
HCM Control Delay	9.9	9.2	13	9.8	8.6	15.3	10.3	10
HCM Lane LOS	A	A	B	A	A	C	B	A
HCM 95th-tile Q	0	0.3	2.6	0.9	0	3.8	1.3	0.5

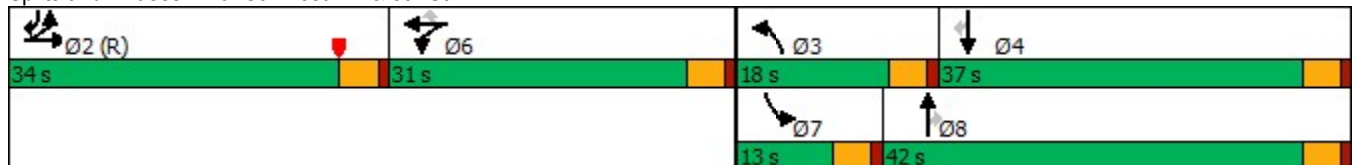
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	83	62	88	194	37	70	432	175	36	179	348
Future Volume (vph)	83	62	88	194	37	70	432	175	36	179	348
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	38.0	38.0	9.5	31.0	22.5
Total Split (s)	34.0	34.0	31.0	31.0	31.0	18.0	42.0	42.0	13.0	37.0	34.0
Total Split (%)	28.3%	28.3%	25.8%	25.8%	25.8%	15.0%	35.0%	35.0%	10.8%	30.8%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	29.5	29.5	19.3	19.3	19.3	10.4	47.5	47.5	7.7	45.0	79.0
Actuated g/C Ratio	0.25	0.25	0.16	0.16	0.16	0.09	0.40	0.40	0.06	0.38	0.66
v/c Ratio	0.17	0.16	0.34	0.71	0.11	0.50	0.34	0.28	0.35	0.28	0.33
Control Delay	37.0	26.0	46.6	60.5	0.6	63.1	28.1	14.8	61.8	30.8	2.6
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	37.0	26.0	46.6	60.5	0.6	63.1	28.1	14.8	61.8	30.8	2.6
LOS	D	C	D	E	A	E	C	B	E	C	A
Approach Delay		29.7		49.7			28.3			15.4	
Approach LOS		C		D			C			B	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 28.2  
 Intersection Capacity Utilization 47.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	62	33	88	194	37	70	432	175	36	179	348
Future Volume (veh/h)	83	62	33	88	194	37	70	432	175	36	179	348
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	65	104	36	97	213	41	77	475	192	40	197	382
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	657	992	328	246	258	219	99	1111	495	55	538	1041
Arrive On Green	0.37	0.37	0.37	0.14	0.14	0.14	0.06	0.31	0.31	0.03	0.29	0.29
Sat Flow, veh/h	1781	2690	890	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	65	71	69	97	213	41	77	475	192	40	197	382
Grp Sat Flow(s),veh/h/ln	1781	1870	1710	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	2.9	3.0	3.2	6.0	13.3	2.7	5.1	12.7	11.4	2.7	10.1	13.1
Cycle Q Clear(g_c), s	2.9	3.0	3.2	6.0	13.3	2.7	5.1	12.7	11.4	2.7	10.1	13.1
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	657	690	631	246	258	219	99	1111	495	55	538	1041
V/C Ratio(X)	0.10	0.10	0.11	0.39	0.83	0.19	0.78	0.43	0.39	0.73	0.37	0.37
Avail Cap(c_a), veh/h	657	690	631	393	413	350	200	1111	495	126	538	1041
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(l)	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	24.8	24.8	24.9	47.1	50.3	45.8	56.0	32.7	32.3	57.7	34.0	9.3
Incr Delay (d2), s/veh	0.3	0.3	0.4	1.0	7.2	0.4	12.5	1.2	2.3	17.0	1.9	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	1.3	1.4	1.4	2.7	6.8	1.1	2.6	5.6	4.6	1.5	4.8	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	25.1	25.3	48.2	57.6	46.2	68.5	33.9	34.5	74.7	35.9	10.3
LnGrp LOS	C	C	C	D	E	D	E	C	C	E	D	B
Approach Vol, veh/h		205			351			744			619	
Approach Delay, s/veh		25.2			53.6			37.7			22.6	
Approach LOS		C			D			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.8	11.1	39.0		21.1	8.2	42.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	13.5	32.5		26.5	8.5	37.5				
Max Q Clear Time (g_c+I1), s		5.2	7.1	15.1		15.3	4.7	14.7				
Green Ext Time (p_c), s		0.9	0.1	2.3		1.3	0.0	3.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

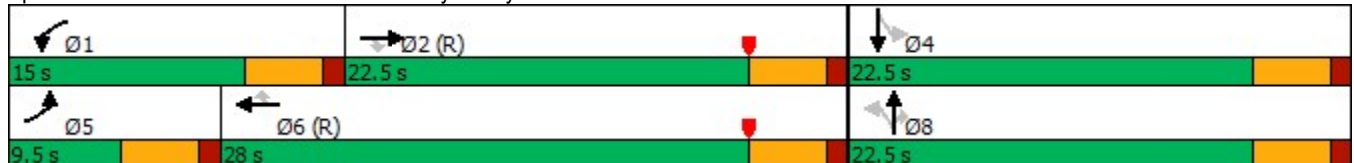
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	295	500	45	273	500	347	25	3	158	399	12
Future Volume (vph)	295	500	45	273	500	347	25	3	158	399	12
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	2.14	0.50	0.08	0.94	0.38	0.44	0.08	0.01	0.28	0.28	1.44
Control Delay	554.3	19.3	0.2	66.7	14.1	3.5	15.9	15.0	3.7	3.7	230.5
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	554.3	19.3	0.2	66.7	14.1	3.5	15.9	15.0	3.7	3.7	230.5
LOS	F	B	A	E	B	A	B	B	A	A	F
Approach Delay		206.2			23.6			5.5			230.5
Approach LOS		F			C			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.14  
 Intersection Signal Delay: 124.2  
 Intersection Capacity Utilization 83.6%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	500	45	273	500	347	25	3	158	399	12	209
Future Volume (veh/h)	295	500	45	273	500	347	25	3	158	399	12	209
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	314	532	48	290	532	369	27	3	168	424	13	222
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	148	1066	476	312	1392	621	483	561	476	354	8	134
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1145	1870	1585	851	26	446
Grp Volume(v), veh/h	314	532	48	290	532	369	27	3	168	659	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1145	1870	1585	1323	0	0
Q Serve(g_s), s	5.0	7.4	1.3	9.6	6.4	11.1	0.0	0.1	5.0	17.9	0.0	0.0
Cycle Q Clear(g_c), s	5.0	7.4	1.3	9.6	6.4	11.1	1.0	0.1	5.0	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.64		0.34
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	483	561	476	495	0	0
V/C Ratio(X)	2.12	0.50	0.10	0.93	0.38	0.59	0.06	0.01	0.35	1.33	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	483	561	476	495	0	0
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	0.00
Uniform Delay (d), s/veh	27.5	17.3	15.2	24.4	13.1	14.5	15.0	14.7	16.4	22.8	0.0	0.0
Incr Delay (d2), s/veh	523.9	1.7	0.4	33.3	0.8	4.2	0.2	0.0	2.1	161.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.6	2.9	0.5	6.6	2.3	4.1	0.3	0.0	1.9	29.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	551.4	19.0	15.6	57.7	13.9	18.6	15.3	14.7	18.5	184.7	0.0	0.0
LnGrp LOS	F	B	B	E	B	B	B	B	B	F	A	A
Approach Vol, veh/h		894			1191			198			659	
Approach Delay, s/veh		205.8			26.0			18.0			184.7	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	11.6	9.4		20.0	7.0	13.1		7.0				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	3.6		0.5				

Intersection Summary

HCM 6th Ctrl Delay	115.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

**Intersection**

Intersection Delay, s/veh 60.4  
 Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	853	203	295	576	0	0	0	0	442	2	542
Future Vol, veh/h	0	853	203	295	576	0	0	0	0	442	2	542
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	889	211	307	600	0	0	0	0	460	2	565
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	533.7	382.6	450.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	34%	45%
Vol Thru, %	81%	66%	0%
Vol Right, %	19%	0%	55%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1056	871	986
LT Vol	0	295	442
Through Vol	853	576	2
RT Vol	203	0	542
Lane Flow Rate	1100	907	1027
Geometry Grp	1	1	1
Degree of Util (X)	2.113	1.764	1.937
Departure Headway (Hd)	10.561	11.337	8.705
Convergence, Y/N	Yes	Yes	Yes
Cap	352	327	431
Service Time	8.561	9.337	6.705
HCM Lane V/C Ratio	3.125	2.774	2.383
HCM Control Delay	533.7	382.6	450.6
HCM Lane LOS	F	F	F
HCM 95th-tile Q	52.6	36.1	54

Intersection												
Intersection Delay, s/veh	520											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	618	677	0	0	680	365	191	5	381	0	0	0
Future Vol, veh/h	618	677	0	0	680	365	191	5	381	0	0	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	624	684	0	0	687	369	193	5	385	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	741.2	479.8	96.4
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	33%	48%	0%
Vol Thru, %	1%	52%	65%
Vol Right, %	66%	0%	35%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	577	1295	1045
LT Vol	191	618	0
Through Vol	5	677	680
RT Vol	381	0	365
Lane Flow Rate	583	1308	1056
Geometry Grp	1	1	1
Degree of Util (X)	1.073	2.59	2
Departure Headway (Hd)	9.006	8.733	9.173
Convergence, Y/N	Yes	Yes	Yes
Cap	408	432	412
Service Time	7.006	6.733	7.173
HCM Lane V/C Ratio	1.429	3.028	2.563
HCM Control Delay	96.4	741.2	479.8
HCM Lane LOS	F	F	F
HCM 95th-tile Q	14.6	86.6	54.5



Intersection						
Int Delay, s/veh	1275.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	359	700	689	116	106	356
Future Vol, veh/h	359	700	689	116	106	356
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	378	737	725	122	112	375

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	847	0	-	0	2279 786
Stage 1	-	-	-	-	786 -
Stage 2	-	-	-	-	1493 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	790	-	-	-	~ 44 392
Stage 1	-	-	-	-	449 -
Stage 2	-	-	-	-	205 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	790	-	-	-	~ 8 392
Mov Cap-2 Maneuver	-	-	-	-	~ 8 -
Stage 1	-	-	-	-	~ 85 -
Stage 2	-	-	-	-	205 -

Approach	EB	WB	SB
HCM Control Delay, s	4.6	0	\$ 6410.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	790	-	-	-	33
HCM Lane V/C Ratio	0.478	-	-	-	-14.737
HCM Control Delay (s)	13.7	0	-	-	\$ 6410.6
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	2.6	-	-	-	59.7

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	18.4
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	381	5	0	295	301	0
Future Vol, veh/h	381	5	0	295	301	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	423	6	0	328	334	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	22.6	15.6	15.9
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	295	386	301
LT Vol	0	381	0
Through Vol	295	0	301
RT Vol	0	5	0
Lane Flow Rate	328	429	334
Geometry Grp	1	1	1
Degree of Util (X)	0.536	0.712	0.546
Departure Headway (Hd)	5.884	5.977	5.873
Convergence, Y/N	Yes	Yes	Yes
Cap	610	600	609
Service Time	3.959	4.041	3.948
HCM Lane V/C Ratio	0.538	0.715	0.548
HCM Control Delay	15.6	22.6	15.9
HCM Lane LOS	C	C	C
HCM 95th-tile Q	3.2	5.8	3.3

Intersection						
Int Delay, s/veh	6733					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	85	444	49	74	396	45
Future Vol, veh/h	85	444	49	74	396	45
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	40	40	40	40	40	40
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	213	1110	123	185	990	113

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2309	216	0	0	308
Stage 1	216	-	-	-	-
Stage 2	2093	-	-	-	-
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	~ 42	~ 824	-	-	1253
Stage 1	820	-	-	-	-
Stage 2	~ 103	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 7	~ 824	-	-	1253
Mov Cap-2 Maneuver	~ 7	-	-	-	-
Stage 1	820	-	-	-	-
Stage 2	~ 16	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay \$/veh	3898.3	0	15.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	42	1253
HCM Lane V/C Ratio	-	-	31.488	0.79
HCM Control Delay (s)	-	\$	13898.3	17.7
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	163.1	8.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	1	1	300	2	4	317
Future Vol, veh/h	1	1	300	2	4	317
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	-	-	-	150	-
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	1	1	326	2	4	345

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	680	164	0	0	328
Stage 1	327	-	-	-	-
Stage 2	353	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	400	852	-	-	1230
Stage 1	704	-	-	-	-
Stage 2	710	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	399	852	-	-	1230
Mov Cap-2 Maneuver	504	-	-	-	-
Stage 1	704	-	-	-	-
Stage 2	708	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	633	1230
HCM Lane V/C Ratio	-	-	0.003	0.004
HCM Control Delay (s)	-	-	10.7	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	1	3	298	2	11	306
Future Vol, veh/h	1	3	298	2	11	306
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	-	-	-	150	-
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	1	3	324	2	12	333

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	682	163	0	0	326	0
Stage 1	325	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	399	854	-	-	1232	-
Stage 1	705	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	395	854	-	-	1232	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	700	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	726	1232
HCM Lane V/C Ratio	-	-	0.006	0.01
HCM Control Delay (s)	-	-	10	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y <sup>Y</sup>		↑↑		Y <sup>Y</sup>	↑
Traffic Vol, veh/h	8	17	282	7	15	292
Future Vol, veh/h	8	17	282	7	15	292
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	-	-	-	150	-
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	9	18	307	8	16	317

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	660	158	0	0	315
Stage 1	311	-	-	-	-
Stage 2	349	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	412	860	-	-	1244
Stage 1	717	-	-	-	-
Stage 2	713	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	407	860	-	-	1244
Mov Cap-2 Maneuver	510	-	-	-	-
Stage 1	717	-	-	-	-
Stage 2	704	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	705	1244
HCM Lane V/C Ratio	-	-	0.039	0.013
HCM Control Delay (s)	-	-	10.3	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	95	64	225	94	67	233
Future Vol, veh/h	95	64	225	94	67	233
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	-	-	-	150	-
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	103	70	245	102	73	253

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	695	174	0	0	347
Stage 1	296	-	-	-	-
Stage 2	399	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	392	840	-	-	1210
Stage 1	729	-	-	-	-
Stage 2	677	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	368	840	-	-	1210
Mov Cap-2 Maneuver	476	-	-	-	-
Stage 1	729	-	-	-	-
Stage 2	636	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.9	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	577	1210
HCM Lane V/C Ratio	-	-	0.3	0.06
HCM Control Delay (s)	-	-	13.9	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.2

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	63	95	225	60	91	238
Future Vol, veh/h	63	95	225	60	91	238
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	-	-	-	150	-
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	68	103	245	65	99	259

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	735	155	0	0	310
Stage 1	278	-	-	-	-
Stage 2	457	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	370	864	-	-	1249
Stage 1	745	-	-	-	-
Stage 2	637	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	341	864	-	-	1249
Mov Cap-2 Maneuver	341	-	-	-	-
Stage 1	745	-	-	-	-
Stage 2	587	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	536	1249
HCM Lane V/C Ratio	-	-	0.32	0.079
HCM Control Delay (s)	-	-	14.9	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.3



This Page Intentionally Left Blank

**APPENDIX 6.6: INTERIM YEAR CUMULATIVE (2028) WITHOUT PROJECT  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Timings  
1: Singleton Rd. & I-10 EB Ramps

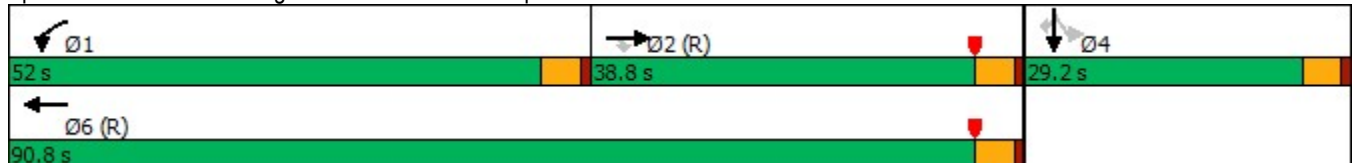
IY (2028) Without Project AM Peak Hour

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑	↔	↘
Traffic Volume (vph)	652	334	445	439	0	298
Future Volume (vph)	652	334	445	439	0	298
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	38.8	38.8	52.0	90.8	29.2	29.2
Total Split (%)	32.3%	32.3%	43.3%	75.7%	24.3%	24.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	43.1	43.1	38.7	86.3	24.7	24.7
Actuated g/C Ratio	0.36	0.36	0.32	0.72	0.21	0.21
v/c Ratio	0.56	0.53	0.86	0.36	0.61	0.45
Control Delay	38.3	23.4	62.3	10.2	40.3	8.5
Queue Delay	0.0	0.0	0.1	0.3	0.0	0.0
Total Delay	38.3	23.4	62.4	10.5	40.3	8.5
LOS	D	C	E	B	D	A
Approach Delay	33.3			36.6	24.8	
Approach LOS	C			D	C	

Intersection Summary
























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 33.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 73.1%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

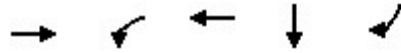


HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 	 	 							 	 
Traffic Volume (veh/h)	0	652	334	445	439	0	0	0	0	113	0	298
Future Volume (veh/h)	0	652	334	445	439	0	0	0	0	113	0	298
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	716	367	489	482	0				124	152	226
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1378	615	523	1345	0				169	207	326
Arrive On Green	0.00	0.39	0.39	0.34	0.83	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	3647	1585	1781	1870	0				822	1007	1585
Grp Volume(v), veh/h	0	716	367	489	482	0				276	0	226
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1829	0	1585
Q Serve(g_s), s	0.0	18.5	22.1	31.9	7.6	0.0				16.9	0.0	15.8
Cycle Q Clear(g_c), s	0.0	18.5	22.1	31.9	7.6	0.0				16.9	0.0	15.8
Prop In Lane	0.00		1.00	1.00		0.00				0.45		1.00
Lane Grp Cap(c), veh/h	0	1378	615	523	1345	0				377	0	326
V/C Ratio(X)	0.00	0.52	0.60	0.93	0.36	0.00				0.73	0.00	0.69
Avail Cap(c_a), veh/h	0	1378	615	705	1345	0				377	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.15	1.15	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.66	0.66	0.64	0.64	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.2	29.3	38.6	3.6	0.0				44.6	0.0	44.1
Incr Delay (d2), s/veh	0.0	0.9	2.8	11.6	0.5	0.0				11.9	0.0	11.5
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	0.0	8.0	8.9	15.1	2.5	0.0				8.9	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.1	32.1	50.3	4.0	0.0				56.5	0.0	55.6
LnGrp LOS	A	C	C	D	A	A				E	A	E
Approach Vol, veh/h		1083			971						502	
Approach Delay, s/veh		30.1			27.3						56.1	
Approach LOS		C			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	39.8	51.0		29.2		90.8						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	47.5	34.3		24.7		86.3						
Max Q Clear Time (g_c+I1), s	33.9	24.1		18.9		9.6						
Green Ext Time (p_c), s	1.4	4.5		1.3		3.5						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.2									
HCM 6th LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

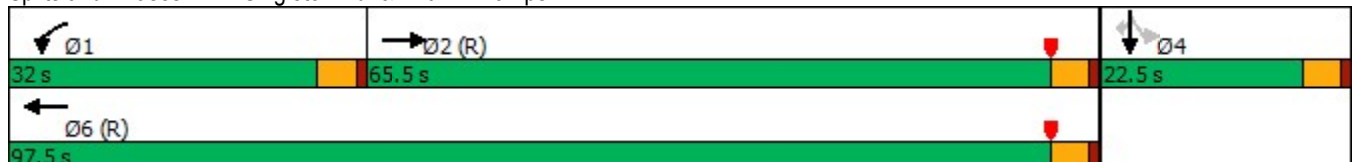


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	652	445	439	0	298
Future Volume (vph)	652	445	439	0	298
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	65.5	32.0	97.5	22.5	22.5
Total Split (%)	54.6%	26.7%	81.3%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	61.0	27.5	93.0	18.0	18.0
Actuated g/C Ratio	0.51	0.23	0.78	0.15	0.15
v/c Ratio	1.18	1.21	0.33	0.44	0.63
Control Delay	120.4	134.1	5.6	52.1	11.1
Queue Delay	0.0	0.0	0.6	0.0	0.0
Total Delay	120.4	134.1	6.1	52.1	11.1
LOS	F	F	A	D	B
Approach Delay	120.4		70.6	22.3	
Approach LOS	F		E	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 83.4  
 Intersection LOS: F  
 Intersection Capacity Utilization 119.7%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↔	↔
Traffic Volume (veh/h)	0	652	334	445	439	0	0	0	0	113	0	298
Future Volume (veh/h)	0	652	334	445	439	0	0	0	0	113	0	298
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	716	367	489	482	0				124	0	327
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	592	304	408	1450	0				267	0	238
Arrive On Green	0.00	0.51	0.51	0.38	1.00	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	1165	597	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1083	489	482	0				124	0	327
Grp Sat Flow(s),veh/h/ln	0	0	1763	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	61.0	27.5	0.0	0.0				7.6	0.0	18.0
Cycle Q Clear(g_c), s	0.0	0.0	61.0	27.5	0.0	0.0				7.6	0.0	18.0
Prop In Lane	0.00		0.34	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	896	408	1450	0				267	0	238
V/C Ratio(X)	0.00	0.00	1.21	1.20	0.33	0.00				0.46	0.00	1.38
Avail Cap(c_a), veh/h	0	0	896	408	1450	0				267	0	238
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	29.5	37.0	0.0	0.0				46.6	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.0	104.3	91.4	0.1	0.0				5.7	0.0	193.2
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	0.0	50.6	20.8	0.0	0.0				3.8	0.0	19.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	133.8	128.4	0.1	0.0				52.3	0.0	244.2
LnGrp LOS	A	A	F	F	A	A				D	A	F
Approach Vol, veh/h		1083			971						451	
Approach Delay, s/veh		133.8			64.7						191.4	
Approach LOS		F			E						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	65.5		22.5		97.5						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	27.5	61.0		18.0		93.0						
Max Q Clear Time (g_c+I1), s	29.5	63.0		20.0		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		3.5						

Intersection Summary

HCM 6th Ctrl Delay	117.4
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) Without Project AM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	374	391	650	388	235	0
Future Volume (vph)	374	391	650	388	235	0
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	5	2	6			8
Permitted Phases				6	8	
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	35.0	35.0
Total Split (s)	25.0	85.0	60.0	60.0	35.0	35.0
Total Split (%)	20.8%	70.8%	50.0%	50.0%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	18.5	88.0	65.0	65.0	23.0	23.0
Actuated g/C Ratio	0.15	0.73	0.54	0.54	0.19	0.19
v/c Ratio	0.76	0.31	0.69	0.41	0.75	0.42
Control Delay	56.0	10.2	15.7	3.1	58.9	1.9
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	56.0	10.2	15.7	3.3	58.9	1.9
LOS	E	B	B	A	E	A
Approach Delay		32.6	11.1			28.2
Approach LOS		C	B			C

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 22.0  
 Intersection Capacity Utilization 73.1%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D




















Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps













HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	391	0	0	650	388	235	0	274	0	0	0
Future Volume (veh/h)	374	391	0	0	650	388	235	0	274	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	402	420	0	0	699	417	253	0	295			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	462	1346	0	0	1026	869	366	0	326			
Arrive On Green	0.27	1.00	0.00	0.00	1.00	1.00	0.41	0.00	0.41			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	402	420	0	0	699	417	253	0	295			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	13.3	0.0	0.0	0.0	0.0	0.0	14.0	0.0	21.0			
Cycle Q Clear(g_c), s	13.3	0.0	0.0	0.0	0.0	0.0	14.0	0.0	21.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	462	1346	0	0	1026	869	366	0	326			
V/C Ratio(X)	0.87	0.31	0.00	0.00	0.68	0.48	0.69	0.00	0.91			
Avail Cap(c_a), veh/h	590	1346	0	0	1026	869	453	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00			
Upstream Filter(l)	0.80	0.80	0.00	0.00	0.67	0.67	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.0	0.0	0.0	0.0	0.0	0.0	32.2	0.0	34.3			
Incr Delay (d2), s/veh	9.1	0.5	0.0	0.0	2.5	1.3	3.3	0.0	20.8			
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	5.5	0.2	0.0	0.0	0.7	0.3	5.3	0.0	8.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	0.5	0.0	0.0	2.5	1.3	35.5	0.0	55.0			
LnGrp LOS	D	A	A	A	A	A	D	A	E			
Approach Vol, veh/h		822			1116			548				
Approach Delay, s/veh		25.7			2.0			46.0				
Approach LOS		C			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		90.9			20.5	70.3		29.1				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		80.5			20.5	55.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0			15.3	2.0		23.0				
Green Ext Time (p_c), s		3.0			0.7	8.1		1.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				19.6								
HCM 6th LOS				B								

Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	374	391	650	0
Future Volume (vph)	374	391	650	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	25.0	87.0	62.0	33.0
Total Split (%)	20.8%	72.5%	51.7%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	20.5	82.5	57.5	28.5
Actuated g/C Ratio	0.17	0.69	0.48	0.24
v/c Ratio	1.33	0.33	1.29	1.24
Control Delay	194.8	9.8	167.7	161.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	194.8	9.8	167.7	161.4
LOS	F	A	F	F
Approach Delay		100.3	167.7	161.4
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.33  
 Intersection Signal Delay: 144.0  
 Intersection LOS: F  
 Intersection Capacity Utilization 119.7%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	391	0	0	650	388	235	0	274	0	0	0
Future Volume (veh/h)	374	391	0	0	650	388	235	0	274	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	402	420	0	0	699	417	253	0	295			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	304	1286	0	0	526	314	183	0	214			
Arrive On Green	0.34	1.00	0.00	0.00	0.48	0.48	0.24	0.00	0.24			
Sat Flow, veh/h	1781	1870	0	0	1098	655	771	0	899			
Grp Volume(v), veh/h	402	420	0	0	0	1116	548	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1752	1670	0	0			
Q Serve(g_s), s	20.5	0.0	0.0	0.0	0.0	57.5	28.5	0.0	0.0			
Cycle Q Clear(g_c), s	20.5	0.0	0.0	0.0	0.0	57.5	28.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.37	0.46		0.54			
Lane Grp Cap(c), veh/h	304	1286	0	0	0	840	397	0	0			
V/C Ratio(X)	1.32	0.33	0.00	0.00	0.00	1.33	1.38	0.00	0.00			
Avail Cap(c_a), veh/h	304	1286	0	0	0	840	397	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	39.5	0.0	0.0	0.0	0.0	31.3	45.8	0.0	0.0			
Incr Delay (d2), s/veh	146.6	0.1	0.0	0.0	0.0	156.2	186.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	19.9	0.0	0.0	0.0	0.0	59.8	32.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	186.1	0.1	0.0	0.0	0.0	187.5	232.6	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		822			1116			548				
Approach Delay, s/veh		91.1			187.5			232.6				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.0			25.0	62.0		33.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		82.5			20.5	57.5		28.5				
Max Q Clear Time (g_c+I1), s		2.0			22.5	59.5		30.5				
Green Ext Time (p_c), s		3.0			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					165.6							
HCM 6th LOS					F							

Timings

IY (2028) Without Project AM Peak Hour

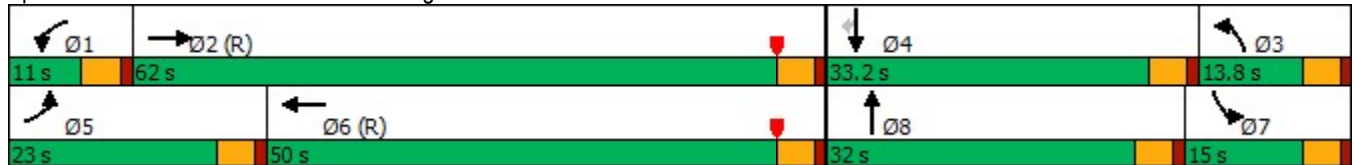
3: Calimesa Bl. & Singleton Rd.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	171	462	30	807	50	257	75	22	182
Future Volume (vph)	171	462	30	807	50	257	75	22	182
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	7	4	
Permitted Phases									4
Detector Phase	5	2	1	6	3	8	7	4	4
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)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	23.0	62.0	11.0	50.0	13.8	32.0	15.0	33.2	33.2
Total Split (%)	19.2%	51.7%	9.2%	41.7%	11.5%	26.7%	12.5%	27.7%	27.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	16.3	65.2	6.3	51.0	21.6	27.5	9.4	15.1	15.1
Actuated g/C Ratio	0.14	0.54	0.05	0.42	0.18	0.23	0.08	0.13	0.13
v/c Ratio	0.77	0.28	0.35	0.74	0.17	1.03	0.58	0.10	0.53
Control Delay	64.3	15.8	72.4	28.0	20.9	81.2	70.2	49.2	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	15.8	72.4	28.0	20.9	81.2	70.2	49.2	12.1
LOS	E	B	E	C	C	F	E	D	B
Approach Delay		28.3		29.3		74.5		30.7	
Approach LOS		C		C		E		C	

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 37.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 79.9%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	462	33	30	807	202	50	257	147	75	22	182
Future Volume (veh/h)	171	462	33	30	807	202	50	257	147	75	22	182
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	184	497	35	32	868	217	54	276	158	81	24	196
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	1805	127	49	1255	314	326	256	146	103	194	165
Arrive On Green	0.24	1.00	1.00	0.05	0.89	0.89	0.18	0.23	0.23	0.06	0.10	0.10
Sat Flow, veh/h	1781	3368	237	1781	2817	704	1781	1116	639	1781	1870	1585
Grp Volume(v), veh/h	184	262	270	32	547	538	54	0	434	81	24	196
Grp Sat Flow(s),veh/h/ln	1781	1777	1828	1781	1777	1744	1781	0	1755	1781	1870	1585
Q Serve(g_s), s	11.9	0.0	0.0	2.1	10.5	10.5	3.1	0.0	27.5	5.4	1.4	9.8
Cycle Q Clear(g_c), s	11.9	0.0	0.0	2.1	10.5	10.5	3.1	0.0	27.5	5.4	1.4	9.8
Prop In Lane	1.00		0.13	1.00		0.40	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	209	952	979	49	792	777	326	0	402	103	194	165
V/C Ratio(X)	0.88	0.27	0.28	0.66	0.69	0.69	0.17	0.00	1.08	0.79	0.12	1.19
Avail Cap(c_a), veh/h	275	952	979	96	792	777	326	0	402	156	447	379
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	0.0	0.0	56.2	4.2	4.2	41.3	0.0	46.3	55.8	48.8	33.1
Incr Delay (d2), s/veh	20.8	0.7	0.7	14.0	4.9	5.0	0.2	0.0	67.6	14.0	0.3	99.9
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	5.9	0.2	0.2	1.1	2.9	2.8	1.4	0.0	19.5	2.8	0.7	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	0.7	0.7	70.2	9.1	9.2	41.5	0.0	113.9	69.8	49.1	133.1
LnGrp LOS	E	A	A	E	A	A	D	A	F	E	D	F
Approach Vol, veh/h		716			1117			488			301	
Approach Delay, s/veh		17.4			10.9			105.9			109.4	
Approach LOS		B			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	68.8	26.5	17.0	18.6	58.0	11.4	32.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	57.5	9.3	28.7	18.5	45.5	10.5	27.5				
Max Q Clear Time (g_c+I1), s	4.1	2.0	5.1	11.8	13.9	12.5	7.4	29.5				
Green Ext Time (p_c), s	0.0	3.6	0.0	0.7	0.2	9.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			41.7									
HCM 6th LOS			D									

Timings

IY (2028) Without Project AM Peak Hour

4: Beckwith Av. & Singleton Rd.

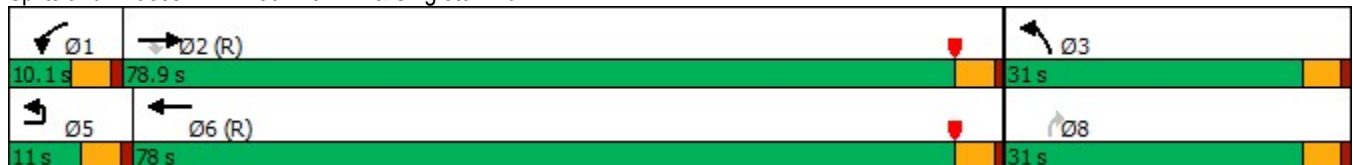


Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶	↷	↷	↶	↷	↶	↷
Traffic Volume (vph)	30	559	81	20	797	224	52
Future Volume (vph)	30	559	81	20	797	224	52
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	3	
Permitted Phases			2				8
Detector Phase	5	2	2	1	6	3	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	11.0	78.9	78.9	10.1	78.0	31.0	31.0
Total Split (%)	9.2%	65.8%	65.8%	8.4%	65.0%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max
Act Effct Green (s)	6.3	80.5	80.5	5.6	77.9	26.5	26.5
Actuated g/C Ratio	0.05	0.67	0.67	0.05	0.65	0.22	0.22
v/c Ratio	0.36	0.46	0.08	0.24	0.67	0.59	0.14
Control Delay	67.6	12.3	2.5	62.6	17.7	48.9	10.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	12.4	2.5	62.6	17.7	48.9	10.9
LOS	E	B	A	E	B	D	B
Approach Delay		13.8			18.7	41.7	
Approach LOS		B			B	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 20.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 61.9%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

IY (2028) Without Project AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	→	↲	↰	→	↲	↲
Traffic Volume (veh/h)	30	559	81	20	797	224	52
Future Volume (veh/h)	30	559	81	20	797	224	52
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		570	83	20	813	229	53
Peak Hour Factor		0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1347	1141	36	1455	262	233
Arrive On Green		1.00	1.00	0.02	0.78	0.15	0.15
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		570	83	20	813	229	53
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		0.0	0.0	1.3	20.5	15.1	3.5
Cycle Q Clear(g_c), s		0.0	0.0	1.3	20.5	15.1	3.5
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1347	1141	36	1455	262	233
V/C Ratio(X)		0.42	0.07	0.55	0.56	0.87	0.23
Avail Cap(c_a), veh/h		1347	1141	83	1455	393	350
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	58.2	5.2	50.1	45.1
Incr Delay (d2), s/veh		1.0	0.1	12.6	1.6	13.2	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.4	0.0	0.7	7.1	7.6	1.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		1.0	0.1	70.8	6.8	63.3	45.6
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		653			833	282	
Approach Delay, s/veh		0.9			8.3	60.0	
Approach LOS		A			A	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	6.9	90.9			97.8	22.2	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	5.6	74.4			73.5	26.5	
Max Q Clear Time (g_c+I1), s	3.3	2.0			22.5	17.1	
Green Ext Time (p_c), s	0.0	4.7			7.7	0.6	

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
6: Calimesa Bl. & 5th St.

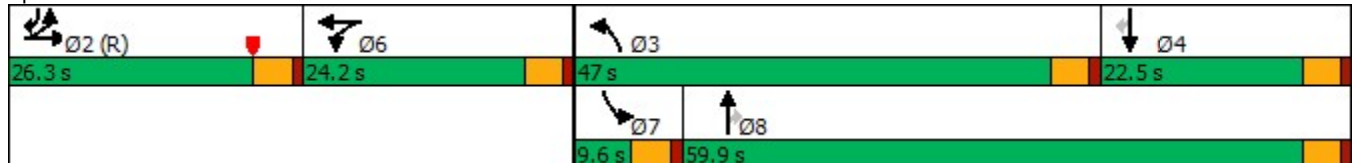
IY (2028) Without Project AM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	248	289	34	450	1009	523	210	25	164	452
Future Volume (vph)	248	289	34	450	1009	523	210	25	164	452
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	26.3	26.3	24.2	24.2	47.0	59.9	59.9	9.6	22.5	26.3
Total Split (%)	21.9%	21.9%	20.2%	20.2%	39.2%	49.9%	49.9%	8.0%	18.8%	21.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	21.8	21.8	19.7	19.7	42.5	59.2	59.2	5.1	18.0	44.3
Actuated g/C Ratio	0.18	0.18	0.16	0.16	0.35	0.49	0.49	0.04	0.15	0.37
v/c Ratio	0.87	0.82	0.14	0.96	0.98	0.67	0.30	0.39	0.69	0.83
Control Delay	76.3	56.5	44.4	77.9	52.3	30.7	14.6	70.9	62.3	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
Total Delay	76.3	56.5	44.4	77.9	52.3	32.0	14.6	70.9	62.3	40.3
LOS	E	E	D	E	D	C	B	E	E	D
Approach Delay		63.1		75.6		41.6			47.1	
Approach LOS		E		E		D			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 51.4  
 Intersection Capacity Utilization 81.1%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service D























Splits and Phases: 6: Calimesa Bl. & 5th St.





HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	289	109	34	450	21	1009	523	210	25	164	452
Future Volume (veh/h)	248	289	109	34	450	21	1009	523	210	25	164	452
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	234	422	69	40	529	13	1187	615	123	29	193	267
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	572	93	292	580	14	1224	895	758	46	281	526
Arrive On Green	0.18	0.18	0.18	0.16	0.16	0.16	0.35	0.48	0.48	0.03	0.15	0.15
Sat Flow, veh/h	1781	3139	510	1781	3545	87	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	234	250	241	40	265	277	1187	615	123	29	193	267
Grp Sat Flow(s),veh/h/ln	1781	1870	1779	1781	1777	1855	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	14.8	15.2	15.4	2.3	17.6	17.6	40.5	30.7	5.3	1.9	11.7	16.2
Cycle Q Clear(g_c), s	14.8	15.2	15.4	2.3	17.6	17.6	40.5	30.7	5.3	1.9	11.7	16.2
Prop In Lane	1.00		0.29	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	341	324	292	291	304	1224	895	758	46	281	526
V/C Ratio(X)	0.72	0.73	0.74	0.14	0.91	0.91	0.97	0.69	0.16	0.63	0.69	0.51
Avail Cap(c_a), veh/h	324	341	324	292	292	304	1224	895	758	76	281	526
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	46.2	46.3	46.4	42.9	49.3	49.3	38.1	24.3	17.7	57.9	48.3	32.2
Incr Delay (d2), s/veh	13.0	13.2	14.3	0.2	30.6	30.0	18.9	4.3	0.5	13.4	12.9	3.5
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	7.7	8.3	8.1	1.0	10.3	10.7	19.8	14.1	2.0	1.0	6.4	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	59.5	60.8	43.1	79.9	79.3	57.0	28.6	18.2	71.2	61.3	35.7
LnGrp LOS	E	E	E	D	E	E	E	C	B	E	E	D
Approach Vol, veh/h		725			582			1925			489	
Approach Delay, s/veh		59.8			77.1			45.4			47.9	
Approach LOS		E			E			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.3	47.0	22.5		24.2	7.6	61.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.8	42.5	18.0		19.7	5.1	55.4				
Max Q Clear Time (g_c+I1), s		17.4	42.5	18.2		19.6	3.9	32.7				
Green Ext Time (p_c), s		1.6	0.0	0.0		0.0	0.0	4.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				53.5								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

IY (2028) Without Project AM Peak Hour

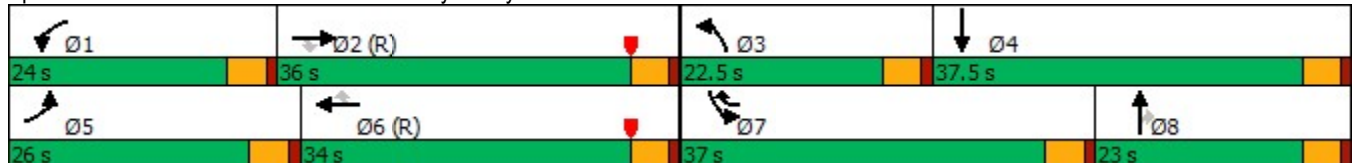
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	340	486	23	135	432	374	12	25	128	534	23
Future Volume (vph)	340	486	23	135	432	374	12	25	128	534	23
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	36.0	36.0	24.0	34.0	37.0	22.5	23.0	23.0	37.0	37.5
Total Split (%)	21.7%	30.0%	30.0%	20.0%	28.3%	30.8%	18.8%	19.2%	19.2%	30.8%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	18.0	36.0	36.0	15.0	33.0	70.0	18.0	18.5	18.5	32.5	33.0
Actuated g/C Ratio	0.15	0.30	0.30	0.12	0.28	0.58	0.15	0.15	0.15	0.27	0.28
v/c Ratio	0.73	0.50	0.04	0.67	0.49	0.39	0.05	0.09	0.39	0.63	0.50
Control Delay	57.1	37.4	0.1	61.1	38.3	12.2	44.4	44.6	10.6	42.1	8.0
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	57.1	37.4	0.1	61.1	38.3	12.2	44.4	44.6	10.6	42.1	8.0
LOS	E	D	A	E	D	B	D	D	B	D	A
Approach Delay		44.3			31.2			18.1			29.7
Approach LOS		D			C			B			C

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 33.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 54.8%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



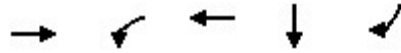
HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	486	23	135	432	374	12	25	128	534	23	283
Future Volume (veh/h)	340	486	23	135	432	374	12	25	128	534	23	283
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	374	534	25	148	475	411	13	27	141	587	25	311
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	445	1157	516	177	1053	899	267	288	244	936	33	408
Arrive On Green	0.13	0.33	0.33	0.10	0.30	0.30	0.15	0.15	0.15	0.27	0.28	0.28
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	119	1484
Grp Volume(v), veh/h	374	534	25	148	475	411	13	27	141	587	0	336
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1603
Q Serve(g_s), s	12.7	14.3	1.3	9.8	13.0	18.2	0.7	1.5	9.9	17.9	0.0	23.1
Cycle Q Clear(g_c), s	12.7	14.3	1.3	9.8	13.0	18.2	0.7	1.5	9.9	17.9	0.0	23.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	445	1157	516	177	1053	899	267	288	244	936	0	441
V/C Ratio(X)	0.84	0.46	0.05	0.84	0.45	0.46	0.05	0.09	0.58	0.63	0.00	0.76
Avail Cap(c_a), veh/h	619	1157	516	289	1053	899	267	288	244	936	0	441
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(l)	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	51.1	32.1	27.7	53.1	34.3	15.2	43.7	43.6	47.1	38.4	0.0	39.9
Incr Delay (d2), s/veh	7.3	1.3	0.2	10.7	1.4	1.7	0.3	0.6	9.6	3.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	6.3	0.5	4.9	5.8	6.8	0.4	0.7	4.6	8.0	0.0	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	33.4	27.9	63.7	35.7	16.9	44.0	44.2	56.7	41.6	0.0	51.7
LnGrp LOS	E	C	C	E	D	B	D	D	E	D	A	D
Approach Vol, veh/h		933			1034			181			923	
Approach Delay, s/veh		43.3			32.2			53.9			45.3	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	43.6	22.5	37.5	20.0	40.0	37.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.5	31.5	18.0	33.0	21.5	29.5	32.5	18.5				
Max Q Clear Time (g_c+I1), s	11.8	16.3	2.7	25.1	14.7	20.2	19.9	11.9				
Green Ext Time (p_c), s	0.2	3.1	0.0	1.3	0.8	3.2	1.9	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			40.8									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) Without Project AM Peak Hour



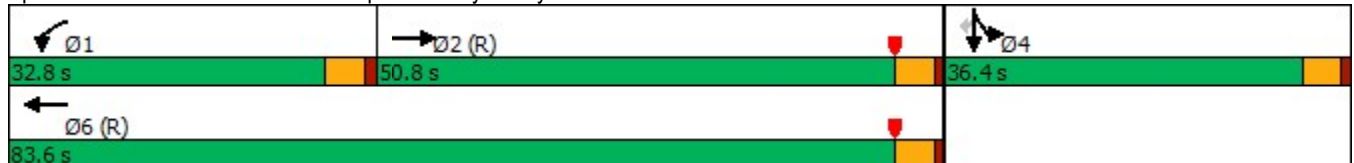
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↙	↑↑	↙	↗↗
Traffic Volume (vph)	945	313	493	0	446
Future Volume (vph)	945	313	493	0	446
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	50.8	32.8	83.6	36.4	36.4
Total Split (%)	42.3%	27.3%	69.7%	30.3%	30.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Min	None	C-Min	Max	Max
Act Effct Green (s)	47.2	26.1	77.8	33.2	33.2
Actuated g/C Ratio	0.39	0.22	0.65	0.28	0.28
v/c Ratio	0.90	0.88	0.23	0.78	0.43
Control Delay	53.0	60.3	15.6	53.3	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	60.3	15.6	53.3	4.3
LOS	D	E	B	D	A
Approach Delay	53.0		33.0	26.1	
Approach LOS	D		C	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 107.7 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 39.3  
 Intersection Capacity Utilization 81.0%  
 Analysis Period (min) 15













Intersection LOS: D  
 ICU Level of Service D

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.













HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↖	↖↖
Traffic Volume (veh/h)	0	945	203	313	493	0	0	0	0	357	0	446
Future Volume (veh/h)	0	945	203	313	493	0	0	0	0	357	0	446
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	1016	218	337	530	0				384	0	480
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1222	262	360	2342	0				474	0	742
Arrive On Green	0.00	0.42	0.42	0.40	1.00	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	3005	623	1781	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	619	615	337	530	0				384	0	480
Grp Sat Flow(s),veh/h/ln	0	1777	1758	1781	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	37.2	37.5	21.8	0.0	0.0				24.2	0.0	18.3
Cycle Q Clear(g_c), s	0.0	37.2	37.5	21.8	0.0	0.0				24.2	0.0	18.3
Prop In Lane	0.00		0.35	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	746	738	360	2342	0				474	0	742
V/C Ratio(X)	0.00	0.83	0.83	0.94	0.23	0.00				0.81	0.00	0.65
Avail Cap(c_a), veh/h	0	746	738	420	2342	0				474	0	742
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.55	0.55	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.0	31.1	35.0	0.0	0.0				41.2	0.0	39.1
Incr Delay (d2), s/veh	0.0	10.4	10.7	17.5	0.1	0.0				14.0	0.0	4.3
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	17.6	17.5	9.1	0.0	0.0				12.4	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.4	41.7	52.6	0.1	0.0				55.2	0.0	43.4
LnGrp LOS	A	D	D	D	A	A				E	A	D
Approach Vol, veh/h		1234			867						864	
Approach Delay, s/veh		41.5			20.5						48.7	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	28.7	54.9		36.4		83.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	28.3	46.3		31.9		79.1						
Max Q Clear Time (g_c+I1), s	23.8	39.5		26.2		2.0						
Green Ext Time (p_c), s	0.4	4.2		2.3		3.9						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				37.5								
HCM 6th LOS				D								

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

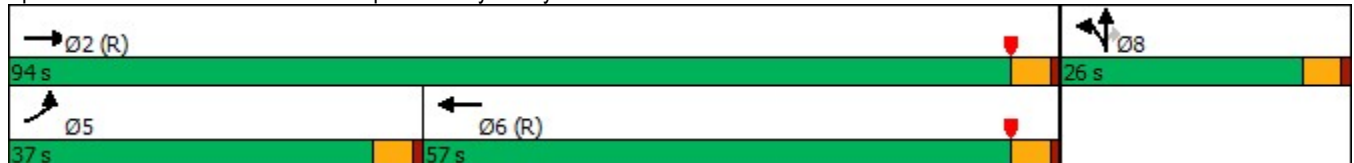
IY (2028) Without Project AM Peak Hour

					
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	686	616	616	11	377
Future Volume (vph)	686	616	616	11	377
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5
Total Split (s)	37.0	94.0	57.0	26.0	26.0
Total Split (%)	30.8%	78.3%	47.5%	21.7%	21.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Min	C-Max	None	None
Act Effct Green (s)	29.8	92.2	57.8	18.8	18.8
Actuated g/C Ratio	0.25	0.77	0.48	0.16	0.16
v/c Ratio	0.87	0.46	0.77	0.77	0.69
Control Delay	60.9	5.3	11.7	66.8	15.2
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	60.9	5.5	11.7	66.8	15.2
LOS	E	A	B	E	B
Approach Delay		34.7	11.7	33.1	
Approach LOS		C	B	C	

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 25.3  
 Intersection Capacity Utilization 81.0%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
9: I-10 WB Ramps & Cherry Valley Bl.

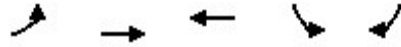
IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 			 	 			
Traffic Volume (veh/h)	686	616	0	0	616	613	189	11	377	0	0	0
Future Volume (veh/h)	686	616	0	0	616	613	189	11	377	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	738	662	0	0	662	659	203	12	405			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	805	1395	0	0	845	753	302	18	284			
Arrive On Green	0.39	1.00	0.00	0.00	0.95	0.95	0.18	0.18	0.18			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1686	100	1585			
Grp Volume(v), veh/h	738	662	0	0	662	659	215	0	405			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1585	1786	0	1585			
Q Serve(g_s), s	24.3	0.0	0.0	0.0	8.7	14.6	13.5	0.0	21.5			
Cycle Q Clear(g_c), s	24.3	0.0	0.0	0.0	8.7	14.6	13.5	0.0	21.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	805	1395	0	0	845	753	320	0	284			
V/C Ratio(X)	0.92	0.47	0.00	0.00	0.78	0.87	0.67	0.00	1.43			
Avail Cap(c_a), veh/h	936	1395	0	0	845	753	320	0	284			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.31	0.31	0.00	0.00	0.46	0.46	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.5	0.0	0.0	0.0	1.8	1.9	46.0	0.0	49.3			
Incr Delay (d2), s/veh	4.5	0.4	0.0	0.0	3.4	6.8	5.4	0.0	211.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.2	0.1	0.0	0.0	1.7	2.4	6.5	0.0	25.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.4	0.0	0.0	5.2	8.8	51.4	0.0	260.3			
LnGrp LOS	D	A	A	A	A	A	D	A	F			
Approach Vol, veh/h		1400			1321			620				
Approach Delay, s/veh		21.3			7.0			187.8				
Approach LOS		C			A			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		94.0			32.5	61.5		26.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		89.5			32.5	52.5		21.5				
Max Q Clear Time (g_c+I1), s		2.0			26.3	16.6		23.5				
Green Ext Time (p_c), s		5.2			1.6	12.3		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				46.5								
HCM 6th LOS				D								



Timings  
10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) Without Project AM Peak Hour

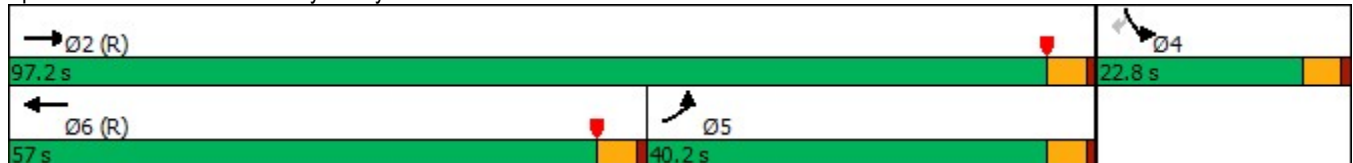


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑	↕↔	↘	↗
Traffic Volume (vph)	371	623	994	65	236
Future Volume (vph)	371	623	994	65	236
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	40.2	97.2	57.0	22.8	22.8
Total Split (%)	33.5%	81.0%	47.5%	19.0%	19.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max
Act Effct Green (s)	35.7	92.7	52.5	18.3	18.3
Actuated g/C Ratio	0.30	0.77	0.44	0.15	0.15
v/c Ratio	0.82	0.50	0.87	0.28	0.58
Control Delay	52.2	6.4	38.0	53.9	15.7
Queue Delay	0.0	0.3	0.0	0.0	0.0
Total Delay	52.2	6.7	38.0	53.9	15.7
LOS	D	A	D	D	B
Approach Delay		23.7	38.0	24.0	
Approach LOS		C	D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 30.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 68.3%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.





HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) Without Project AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	371	623	994	152	65	236
Future Volume (veh/h)	371	623	994	152	65	236
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	431	724	1156	177	76	274
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	530	1445	1352	206	272	242
Arrive On Green	0.59	1.00	0.44	0.44	0.15	0.15
Sat Flow, veh/h	1781	1870	3184	472	1781	1585
Grp Volume(v), veh/h	431	724	663	670	76	274
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1785	1781	1585
Q Serve(g_s), s	22.8	0.0	40.2	40.6	4.5	18.3
Cycle Q Clear(g_c), s	22.8	0.0	40.2	40.6	4.5	18.3
Prop In Lane	1.00			0.26	1.00	1.00
Lane Grp Cap(c), veh/h	530	1445	777	781	272	242
V/C Ratio(X)	0.81	0.50	0.85	0.86	0.28	1.13
Avail Cap(c_a), veh/h	530	1445	777	781	272	242
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.82	0.82	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	30.3	30.4	45.0	50.8
Incr Delay (d2), s/veh	7.8	1.0	11.4	11.8	2.6	98.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.4	19.0	19.3	2.2	21.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.5	1.0	41.7	42.1	47.6	149.5
LnGrp LOS	C	A	D	D	D	F
Approach Vol, veh/h		1155	1333		350	
Approach Delay, s/veh		11.7	41.9		127.3	
Approach LOS		B	D		F	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.2		22.8	40.2	57.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.7		18.3	35.7	52.5
Max Q Clear Time (g_c+I1), s		2.0		20.3	24.8	42.6
Green Ext Time (p_c), s		6.0		0.0	1.1	5.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			40.1			
HCM 6th LOS			D			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) Without Project AM Peak Hour



Lane Group	EBL	NBT	SBT
Lane Configurations	↘	↑↑	↑
Traffic Volume (vph)	343	1333	244
Future Volume (vph)	343	1333	244
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	24.0	36.0	36.0
Total Split (%)	40.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	16.8	34.2	34.2
Actuated g/C Ratio	0.28	0.57	0.57
v/c Ratio	0.77	0.73	0.26
Control Delay	30.8	13.1	5.6
Queue Delay	0.2	0.1	0.0
Total Delay	31.0	13.2	5.6
LOS	C	B	A
Approach Delay	31.0	13.2	5.6
Approach LOS	C	B	A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 15.4  
 Intersection Capacity Utilization 63.5%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) Without Project AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑↑	↑	
Traffic Volume (veh/h)	343	2	0	1333	244	0
Future Volume (veh/h)	343	2	0	1333	244	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	381	2	0	1481	271	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	439	2	0	2138	1125	0
Arrive On Green	0.27	0.25	0.00	0.60	0.60	0.00
Sat Flow, veh/h	1766	9	0	3741	1870	0
Grp Volume(v), veh/h	384	0	0	1481	271	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1777	1870	0
Q Serve(g_s), s	12.3	0.0	0.0	17.1	4.1	0.0
Cycle Q Clear(g_c), s	12.3	0.0	0.0	17.1	4.1	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	442	0	0	2138	1125	0
V/C Ratio(X)	0.87	0.00	0.00	0.69	0.24	0.00
Avail Cap(c_a), veh/h	579	0	0	2138	1125	0
HCM Platoon Ratio	1.10	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.9	0.0	0.0	8.2	5.6	0.0
Incr Delay (d2), s/veh	10.7	0.0	0.0	1.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	0.0	5.1	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.6	0.0	0.0	10.0	6.1	0.0
LnGrp LOS	C	A	A	B	A	A
Approach Vol, veh/h	384			1481	271	
Approach Delay, s/veh	31.6			10.0	6.1	
Approach LOS	C			B	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		40.6		19.4		40.6
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		31.5		19.5		31.5
Max Q Clear Time (g_c+I1), s		19.1		14.3		6.1
Green Ext Time (p_c), s		8.0		0.6		1.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			13.4			
HCM 6th LOS			B			

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

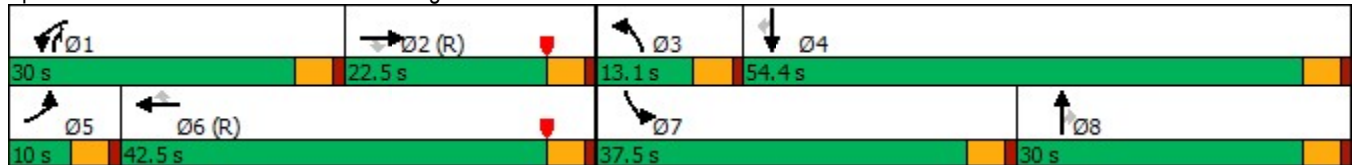
IY (2028) Without Project AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	384	88	165	286	210	41	41	106	483	61	9
Future Volume (vph)	17	384	88	165	286	210	41	41	106	483	61	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	10.0	22.5	22.5	30.0	42.5	42.5	13.1	30.0	30.0	37.5	54.4	54.4
Total Split (%)	8.3%	18.8%	18.8%	25.0%	35.4%	35.4%	10.9%	25.0%	25.0%	31.3%	45.3%	45.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	6.8	42.9	42.9	17.4	59.8	59.8	7.7	11.6	30.6	33.0	36.0	36.0
Actuated g/C Ratio	0.06	0.36	0.36	0.14	0.50	0.50	0.06	0.10	0.26	0.28	0.30	0.30
v/c Ratio	0.18	0.33	0.14	0.70	0.18	0.25	0.40	0.13	0.24	1.08	0.06	0.02
Control Delay	57.5	31.6	0.4	54.5	20.9	6.1	64.2	49.2	9.2	105.8	29.2	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	0.0
Total Delay	57.5	31.6	0.4	54.5	20.9	6.1	64.2	49.2	9.2	105.8	29.2	0.1
LOS	E	C	A	D	C	A	E	D	A	F	C	A
Approach Delay		26.9			24.6			30.1			95.6	
Approach LOS		C			C			C			F	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 46.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 64.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

IY (2028) Without Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	384	88	165	286	210	41	41	106	483	61	9
Future Volume (veh/h)	17	384	88	165	286	210	41	41	106	483	61	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	417	53	179	311	119	45	45	61	525	66	10
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	33	1333	595	208	1681	750	58	296	317	490	1158	516
Arrive On Green	0.03	0.56	0.56	0.19	0.79	0.79	0.05	0.12	0.12	0.41	0.49	0.49
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	18	417	53	179	311	119	45	45	61	525	66	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.2	7.5	1.8	11.7	2.6	2.2	3.0	1.4	3.7	33.0	1.2	0.4
Cycle Q Clear(g_c), s	1.2	7.5	1.8	11.7	2.6	2.2	3.0	1.4	3.7	33.0	1.2	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	1333	595	208	1681	750	58	296	317	490	1158	516
V/C Ratio(X)	0.54	0.31	0.09	0.86	0.19	0.16	0.78	0.15	0.19	1.07	0.06	0.02
Avail Cap(c_a), veh/h	82	1333	595	379	1681	750	128	755	522	490	1478	659
HCM Platoon Ratio	1.50	1.50	1.50	1.67	1.67	1.67	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	18.0	16.8	47.4	6.9	6.9	56.7	48.7	38.1	35.3	21.0	20.8
Incr Delay (d2), s/veh	12.7	0.6	0.3	9.4	0.2	0.4	19.7	0.2	0.3	61.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.0	0.7	5.3	1.0	0.8	1.6	0.6	1.5	21.0	0.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.5	18.6	17.1	56.8	7.1	7.3	76.3	49.0	38.4	96.5	21.0	20.8
LnGrp LOS	E	B	B	E	A	A	E	D	D	F	C	C
Approach Vol, veh/h		488			609			151			601	
Approach Delay, s/veh		20.4			21.8			52.8			86.9	
Approach LOS		C			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.5	49.5	8.4	43.6	6.8	61.2	37.5	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	18.0	8.6	49.9	5.5	38.0	33.0	25.5				
Max Q Clear Time (g_c+I1), s	13.7	9.5	5.0	3.2	3.2	4.6	35.0	5.7				
Green Ext Time (p_c), s	0.4	1.9	0.0	0.4	0.0	2.6	0.0	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			45.1									
HCM 6th LOS			D									

Timings  
1: Singleton Rd. & I-10 EB Ramps

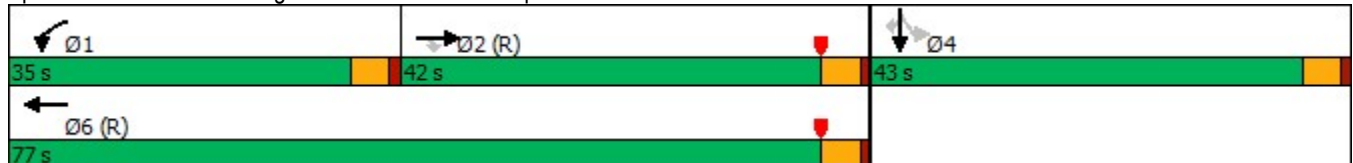
IY (2028) Without Project PM Peak Hour

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑	↔	↘
Traffic Volume (vph)	858	431	352	841	0	577
Future Volume (vph)	858	431	352	841	0	577
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	42.0	42.0	35.0	77.0	43.0	43.0
Total Split (%)	35.0%	35.0%	29.2%	64.2%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	39.2	39.2	28.8	72.5	38.5	38.5
Actuated g/C Ratio	0.33	0.33	0.24	0.60	0.32	0.32
v/c Ratio	0.82	0.72	0.91	0.82	0.89	0.82
Control Delay	52.5	36.2	63.5	21.9	54.2	38.4
Queue Delay	0.0	0.0	0.0	4.2	0.0	0.0
Total Delay	52.5	36.2	63.5	26.1	54.2	38.4
LOS	D	D	E	C	D	D
Approach Delay	47.1			37.2	46.7	
Approach LOS	D			D	D	

Intersection Summary
























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 43.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 93.9%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

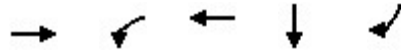


HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

IY (2028) Without Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 	 	 							 	 
Traffic Volume (veh/h)	0	858	431	352	841	0	0	0	0	326	0	577
Future Volume (veh/h)	0	858	431	352	841	0	0	0	0	326	0	577
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	943	474	387	924	0				358	207	496
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1201	536	408	1130	0				369	213	509
Arrive On Green	0.00	0.34	0.34	0.46	1.00	0.00				0.32	0.32	0.32
Sat Flow, veh/h	0	3647	1585	1781	1870	0				1149	664	1585
Grp Volume(v), veh/h	0	943	474	387	924	0				565	0	496
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1813	0	1585
Q Serve(g_s), s	0.0	28.7	33.9	25.0	0.0	0.0				36.9	0.0	37.1
Cycle Q Clear(g_c), s	0.0	28.7	33.9	25.0	0.0	0.0				36.9	0.0	37.1
Prop In Lane	0.00		1.00	1.00		0.00				0.63		1.00
Lane Grp Cap(c), veh/h	0	1201	536	408	1130	0				582	0	509
V/C Ratio(X)	0.00	0.79	0.89	0.95	0.82	0.00				0.97	0.00	0.98
Avail Cap(c_a), veh/h	0	1201	536	453	1130	0				582	0	509
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.66	0.66	0.10	0.10	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.8	37.5	31.9	0.0	0.0				40.2	0.0	40.3
Incr Delay (d2), s/veh	0.0	3.5	13.5	5.2	0.7	0.0				30.9	0.0	34.3
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	12.9	15.0	9.0	0.2	0.0				21.2	0.0	19.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	39.3	51.1	37.1	0.7	0.0				71.1	0.0	74.5
LnGrp LOS	A	D	D	D	A	A				E	A	E
Approach Vol, veh/h		1417			1311						1061	
Approach Delay, s/veh		43.2			11.4						72.7	
Approach LOS		D			B						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	45.0		43.0		77.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	30.5	37.5		38.5		72.5						
Max Q Clear Time (g_c+I1), s	27.0	35.9		39.1		2.0						
Green Ext Time (p_c), s	0.5	1.2		0.0		10.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			40.5									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

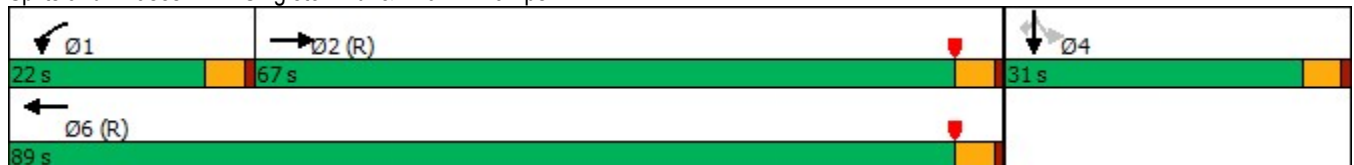


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	858	352	841	0	577
Future Volume (vph)	858	352	841	0	577
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	67.0	22.0	89.0	31.0	31.0
Total Split (%)	55.8%	18.3%	74.2%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	62.5	17.5	84.5	26.5	26.5
Actuated g/C Ratio	0.52	0.15	0.70	0.22	0.22
v/c Ratio	1.51	1.50	0.70	0.87	1.26
Control Delay	258.8	258.8	14.1	67.3	161.4
Queue Delay	0.0	0.0	24.2	0.0	0.0
Total Delay	258.8	258.8	38.2	67.3	161.4
LOS	F	F	D	E	F
Approach Delay	258.8		103.4	127.4	
Approach LOS	F		F	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.51  
 Intersection Signal Delay: 169.0  
 Intersection Capacity Utilization 158.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps





HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↔	↔
Traffic Volume (veh/h)	0	858	431	352	841	0	0	0	0	326	0	577
Future Volume (veh/h)	0	858	431	352	841	0	0	0	0	326	0	577
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	943	474	387	924	0				358	0	634
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	611	307	260	1317	0				393	0	350
Arrive On Green	0.00	0.52	0.52	0.29	1.00	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	1174	590	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1417	387	924	0				358	0	634
Grp Sat Flow(s),veh/h/ln	0	0	1764	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	62.5	17.5	0.0	0.0				23.5	0.0	26.5
Cycle Q Clear(g_c), s	0.0	0.0	62.5	17.5	0.0	0.0				23.5	0.0	26.5
Prop In Lane	0.00		0.33	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	919	260	1317	0				393	0	350
V/C Ratio(X)	0.00	0.00	1.54	1.49	0.70	0.00				0.91	0.00	1.81
Avail Cap(c_a), veh/h	0	0	919	260	1317	0				393	0	350
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	28.8	42.5	0.0	0.0				45.6	0.0	46.8
Incr Delay (d2), s/veh	0.0	0.0	249.4	222.3	0.3	0.0				27.6	0.0	376.2
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	0.0	88.7	22.6	0.1	0.0				13.4	0.0	46.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	278.2	264.8	0.3	0.0				73.1	0.0	423.0
LnGrp LOS	A	A	F	F	A	A				E	A	F
Approach Vol, veh/h		1417			1311						992	
Approach Delay, s/veh		278.2			78.4						296.7	
Approach LOS		F			E						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.0	67.0		31.0		89.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	17.5	62.5		26.5		84.5						
Max Q Clear Time (g_c+I1), s	19.5	64.5		28.5		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		10.0						

Intersection Summary

HCM 6th Ctrl Delay	212.7
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) Without Project PM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	529	656	725	409	470	0
Future Volume (vph)	529	656	725	409	470	0
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	5	2	6			8
Permitted Phases				6	8	
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	25.0	81.0	56.0	56.0	39.0	39.0
Total Split (%)	20.8%	67.5%	46.7%	46.7%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effect Green (s)	20.5	76.5	51.5	51.5	34.5	34.5
Actuated g/C Ratio	0.17	0.64	0.43	0.43	0.29	0.29
v/c Ratio	0.98	0.60	0.99	0.51	1.01	0.81
Control Delay	72.8	18.2	50.2	4.9	84.4	31.1
Queue Delay	0.0	0.6	9.5	0.2	0.0	0.0
Total Delay	72.8	18.8	59.7	5.1	84.4	31.1
LOS	E	B	E	A	F	C
Approach Delay		42.9	40.0			57.6
Approach LOS		D	D			E

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 46.1  
 Intersection Capacity Utilization 93.9%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps











HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) Without Project PM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 												
Traffic Volume (veh/h)	529	656	0	0	725	409	470	0	475	0	0	0	
Future Volume (veh/h)	529	656	0	0	725	409	470	0	475	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	575	713	0	0	788	445	511	0	516				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2				
Cap, veh/h	590	1192	0	0	803	680	512	0	456				
Arrive On Green	0.34	1.00	0.00	0.00	0.86	0.86	0.29	0.00	0.29				
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	1585				
Grp Volume(v), veh/h	575	713	0	0	788	445	511	0	516				
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585				
Q Serve(g_s), s	19.7	0.0	0.0	0.0	45.5	10.9	34.4	0.0	34.5				
Cycle Q Clear(g_c), s	19.7	0.0	0.0	0.0	45.5	10.9	34.4	0.0	34.5				
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00				
Lane Grp Cap(c), veh/h	590	1192	0	0	803	680	512	0	456				
V/C Ratio(X)	0.97	0.60	0.00	0.00	0.98	0.65	1.00	0.00	1.13				
Avail Cap(c_a), veh/h	590	1192	0	0	803	680	512	0	456				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00				
Upstream Filter(l)	0.47	0.47	0.00	0.00	0.80	0.80	1.00	0.00	1.00				
Uniform Delay (d), s/veh	39.2	0.0	0.0	0.0	8.1	5.6	42.7	0.0	42.8				
Incr Delay (d2), s/veh	19.4	1.0	0.0	0.0	24.3	3.9	39.2	0.0	83.6				
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	8.6	0.3	0.0	0.0	8.9	2.7	20.5	0.0	23.9				
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	58.6	1.0	0.0	0.0	32.4	9.5	81.9	0.0	126.4				
LnGrp LOS	E	A	A	A	C	A	F	A	F				
Approach Vol, veh/h		1288			1233			1027					
Approach Delay, s/veh		26.8			24.2			104.2					
Approach LOS		C			C			F					
Timer - Assigned Phs		2			5	6		8					
Phs Duration (G+Y+Rc), s		81.0			25.0	56.0		39.0					
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5					
Max Green Setting (Gmax), s		76.5			20.5	51.5		34.5					
Max Q Clear Time (g_c+I1), s		2.0			21.7	47.5		36.5					
Green Ext Time (p_c), s		6.2			0.0	2.5		0.0					
<b>Intersection Summary</b>													
HCM 6th Ctrl Delay					48.3								
HCM 6th LOS					D								

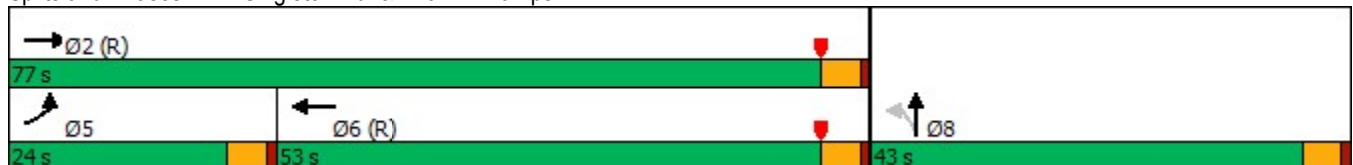
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	529	656	725	0
Future Volume (vph)	529	656	725	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	24.0	77.0	53.0	43.0
Total Split (%)	20.0%	64.2%	44.2%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	19.5	72.5	48.5	38.5
Actuated g/C Ratio	0.16	0.60	0.40	0.32
v/c Ratio	2.00	0.63	1.68	1.77
Control Delay	482.7	16.5	340.5	380.3
Queue Delay	0.0	3.1	0.0	0.0
Total Delay	482.7	19.6	340.5	380.3
LOS	F	B	F	F
Approach Delay		226.4	340.5	380.3
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.00  
 Intersection Signal Delay: 310.6  
 Intersection Capacity Utilization 158.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	529	656	0	0	725	409	470	0	475	0	0	0
Future Volume (veh/h)	529	656	0	0	725	409	470	0	475	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	575	713	0	0	788	445	511	0	516			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	289	1130	0	0	454	256	268	0	270			
Arrive On Green	0.32	1.00	0.00	0.00	0.40	0.40	0.32	0.00	0.32			
Sat Flow, veh/h	1781	1870	0	0	1122	634	834	0	843			
Grp Volume(v), veh/h	575	713	0	0	0	1233	1027	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1756	1677	0	0			
Q Serve(g_s), s	19.5	0.0	0.0	0.0	0.0	48.5	38.5	0.0	0.0			
Cycle Q Clear(g_c), s	19.5	0.0	0.0	0.0	0.0	48.5	38.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.36	0.50		0.50			
Lane Grp Cap(c), veh/h	289	1130	0	0	0	710	538	0	0			
V/C Ratio(X)	1.99	0.63	0.00	0.00	0.00	1.74	1.91	0.00	0.00			
Avail Cap(c_a), veh/h	289	1130	0	0	0	710	538	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	40.5	0.0	0.0	0.0	0.0	35.8	40.8	0.0	0.0			
Incr Delay (d2), s/veh	445.0	0.2	0.0	0.0	0.0	337.5	415.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	42.9	0.1	0.0	0.0	0.0	86.8	77.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	485.5	0.2	0.0	0.0	0.0	373.3	456.6	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1288			1233			1027				
Approach Delay, s/veh		216.9			373.3			456.6				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			24.0	53.0		43.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		72.5			19.5	48.5		38.5				
Max Q Clear Time (g_c+I1), s		2.0			21.5	50.5		40.5				
Green Ext Time (p_c), s		6.2			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					340.6							
HCM 6th LOS					F							

Timings

IY (2028) Without Project PM Peak Hour

3: Calimesa Bl. & Singleton Rd.

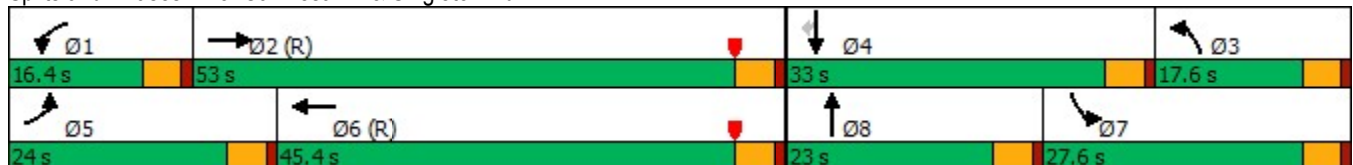


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	158	874	74	797	90	58	191	118	244
Future Volume (vph)	158	874	74	797	90	58	191	118	244
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	7	4	
Permitted Phases									4
Detector Phase	5	2	1	6	3	8	7	4	4
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)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	24.0	53.0	16.4	45.4	17.6	23.0	27.6	33.0	33.0
Total Split (%)	20.0%	44.2%	13.7%	37.8%	14.7%	19.2%	23.0%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	15.7	63.7	9.9	55.8	16.8	12.3	18.2	13.7	13.7
Actuated g/C Ratio	0.13	0.53	0.08	0.46	0.14	0.10	0.15	0.11	0.11
v/c Ratio	0.71	0.54	0.52	0.57	0.38	0.51	0.73	0.58	0.63
Control Delay	61.8	25.6	64.6	27.0	79.5	64.3	64.2	60.6	14.3
Queue Delay	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	25.9	64.6	27.1	79.5	64.3	64.2	60.6	14.3
LOS	E	C	E	C	E	E	E	E	B
Approach Delay		31.0		30.0		71.6		41.4	
Approach LOS		C		C		E		D	

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 35.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 62.3%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

IY (2028) Without Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	874	99	74	797	94	90	58	40	191	118	244
Future Volume (veh/h)	158	874	99	74	797	94	90	58	40	191	118	244
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	901	102	76	822	97	93	60	41	197	122	252
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1881	213	97	1705	201	140	86	59	227	247	210
Arrive On Green	0.21	1.00	1.00	0.07	0.71	0.71	0.08	0.08	0.08	0.13	0.13	0.13
Sat Flow, veh/h	1781	3217	364	1781	3201	378	1781	1035	708	1781	1870	1585
Grp Volume(v), veh/h	163	498	505	76	456	463	93	0	101	197	122	252
Grp Sat Flow(s),veh/h/ln	1781	1777	1805	1781	1777	1802	1781	0	1743	1781	1870	1585
Q Serve(g_s), s	10.6	0.0	0.0	5.0	13.6	13.6	6.1	0.0	6.8	13.0	7.3	12.6
Cycle Q Clear(g_c), s	10.6	0.0	0.0	5.0	13.6	13.6	6.1	0.0	6.8	13.0	7.3	12.6
Prop In Lane	1.00		0.20	1.00		0.21	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	189	1039	1055	97	947	960	140	0	145	227	247	210
V/C Ratio(X)	0.86	0.48	0.48	0.78	0.48	0.48	0.66	0.00	0.70	0.87	0.49	1.20
Avail Cap(c_a), veh/h	289	1039	1055	177	947	960	194	0	269	343	444	376
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	0.0	0.0	55.0	10.2	10.2	53.7	0.0	53.5	51.3	48.3	32.6
Incr Delay (d2), s/veh	12.0	1.2	1.2	12.9	1.8	1.7	5.3	0.0	5.9	13.9	1.5	111.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.4	0.4	2.6	4.8	4.8	2.9	0.0	3.2	6.7	3.5	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	1.2	1.2	67.9	11.9	11.9	59.0	0.0	59.4	65.2	49.9	143.8
LnGrp LOS	E	A	A	E	B	B	E	A	E	E	D	F
Approach Vol, veh/h		1166			995			194			571	
Approach Delay, s/veh		9.2			16.2			59.2			96.6	
Approach LOS		A			B			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	74.7	14.0	20.4	17.3	68.4	19.8	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.9	48.5	13.1	28.5	19.5	40.9	23.1	18.5				
Max Q Clear Time (g_c+I1), s	7.0	2.0	8.1	14.6	12.6	15.6	15.0	8.8				
Green Ext Time (p_c), s	0.1	8.3	0.1	1.3	0.2	6.6	0.3	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				31.9								
HCM 6th LOS				C								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings

IY (2028) Without Project PM Peak Hour

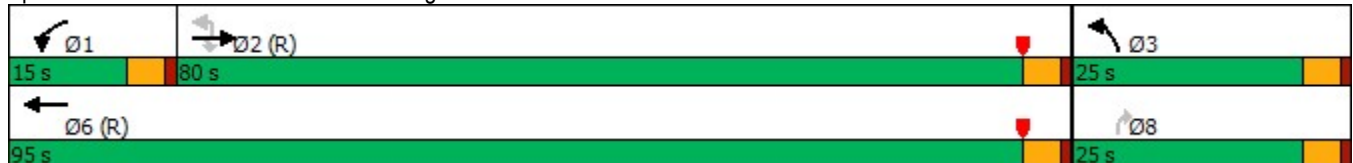
4: Beckwith Av. & Singleton Rd.

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	731	255	63	679	151	38
Future Volume (vph)	731	255	63	679	151	38
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2				8
Detector Phase	2	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	80.0	80.0	15.0	95.0	25.0	25.0
Total Split (%)	66.7%	66.7%	12.5%	79.2%	20.8%	20.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effect Green (s)	79.1	79.1	9.0	90.5	20.5	20.5
Actuated g/C Ratio	0.66	0.66	0.08	0.75	0.17	0.17
v/c Ratio	0.63	0.24	0.50	0.51	0.53	0.13
Control Delay	13.4	1.2	65.9	7.4	52.5	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	1.2	65.9	7.4	52.5	13.7
LOS	B	A	E	A	D	B
Approach Delay	10.2			12.3	44.7	
Approach LOS	B			B	D	

Intersection Summary

Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 0 (0%), Referenced to phase 2:EBTU and 6:WBT, Start of Yellow  
Natural Cycle: 70  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.63  
Intersection Signal Delay: 14.4  
Intersection LOS: B  
Intersection Capacity Utilization 63.7%  
ICU Level of Service B  
Analysis Period (min) 15

Splits and Phases: 4: Beckwith Av. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

IY (2028) Without Project PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	→	↷	↰	→	↷	↷
Traffic Volume (veh/h)	0	731	255	63	679	151	38
Future Volume (veh/h)	0	731	255	63	679	151	38
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		769	268	66	715	159	40
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1251	1060	85	1411	304	271
Arrive On Green		1.00	1.00	0.05	0.75	0.17	0.17
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		769	268	66	715	159	40
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		0.0	0.0	4.4	18.3	9.8	2.6
Cycle Q Clear(g_c), s		0.0	0.0	4.4	18.3	9.8	2.6
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1251	1060	85	1411	304	271
V/C Ratio(X)		0.61	0.25	0.78	0.51	0.52	0.15
Avail Cap(c_a), veh/h		1251	1060	156	1411	304	271
HCM Platoon Ratio		2.00	2.00	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		0.0	0.0	56.5	5.9	45.3	42.3
Incr Delay (d2), s/veh		2.3	0.6	14.0	1.3	6.3	1.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.8	0.2	2.3	6.6	4.8	1.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		2.3	0.6	70.5	7.2	51.6	43.5
LnGrp LOS		A	A	E	A	D	D
Approach Vol, veh/h		1037			781	199	
Approach Delay, s/veh		1.8			12.5	50.0	
Approach LOS		A			B	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	10.2	84.8			95.0	25.0	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	10.5	75.5			90.5	20.5	
Max Q Clear Time (g_c+I1), s	6.4	2.0			20.3	11.8	
Green Ext Time (p_c), s	0.0	8.4			6.2	0.3	

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
6: Calimesa Bl. & 5th St.

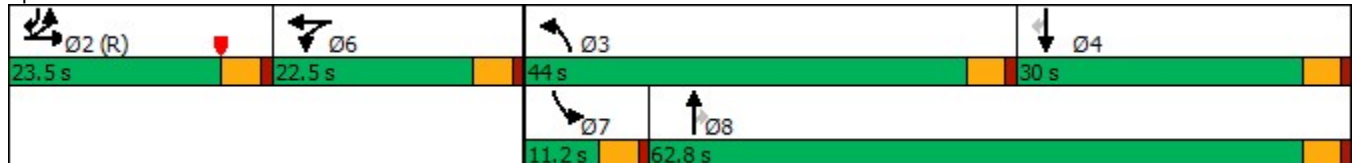
IY (2028) Without Project PM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	190	178	91	327	1036	403	215	34	355	502
Future Volume (vph)	190	178	91	327	1036	403	215	34	355	502
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	23.5	23.5	22.5	22.5	44.0	62.8	62.8	11.2	30.0	23.5
Total Split (%)	19.6%	19.6%	18.8%	18.8%	36.7%	52.3%	52.3%	9.3%	25.0%	19.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	19.0	19.0	16.7	16.7	40.0	64.1	64.1	6.5	26.3	49.8
Actuated g/C Ratio	0.16	0.16	0.14	0.14	0.33	0.53	0.53	0.05	0.22	0.42
v/c Ratio	0.71	0.60	0.39	0.77	0.96	0.43	0.26	0.38	0.93	0.75
Control Delay	64.1	38.9	51.7	59.9	51.7	22.3	12.9	66.5	76.3	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	38.9	51.7	59.9	51.7	22.3	12.9	66.5	76.3	32.3
LOS	E	D	D	E	D	C	B	E	E	C
Approach Delay		47.5		58.2		39.5			51.1	
Approach LOS		D		E		D			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 46.0  
 Intersection Capacity Utilization 83.0%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

IY (2028) Without Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	178	132	91	327	29	1036	403	215	34	355	502
Future Volume (veh/h)	190	178	132	91	327	29	1036	403	215	34	355	502
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	159	249	87	97	348	20	1102	429	123	36	378	268
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	328	492	167	221	424	24	1138	959	812	52	397	629
Arrive On Green	0.18	0.18	0.18	0.12	0.12	0.12	0.33	0.51	0.51	0.03	0.21	0.21
Sat Flow, veh/h	1781	2669	908	1781	3416	196	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	159	172	164	97	180	188	1102	429	123	36	378	268
Grp Sat Flow(s),veh/h/ln	1781	1870	1707	1781	1777	1835	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.6	9.9	10.4	6.1	11.9	12.0	37.7	17.4	4.9	2.4	23.9	14.7
Cycle Q Clear(g_c), s	9.6	9.9	10.4	6.1	11.9	12.0	37.7	17.4	4.9	2.4	23.9	14.7
Prop In Lane	1.00		0.53	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	345	314	221	221	228	1138	959	812	52	397	629
V/C Ratio(X)	0.48	0.50	0.52	0.44	0.82	0.82	0.97	0.45	0.15	0.69	0.95	0.43
Avail Cap(c_a), veh/h	328	345	314	267	267	275	1138	959	812	99	397	629
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(l)	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	43.8	44.0	44.2	48.7	51.2	51.3	39.6	18.5	15.5	57.7	46.6	26.3
Incr Delay (d2), s/veh	5.0	5.1	6.0	1.4	15.2	15.5	19.5	1.5	0.4	15.3	34.4	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	4.7	5.1	4.9	2.8	6.2	6.5	18.7	7.7	1.8	1.3	14.7	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	49.1	50.2	50.0	66.5	66.7	59.2	20.0	15.9	73.0	81.0	28.4
LnGrp LOS	D	D	D	D	E	E	E	C	B	E	F	C
Approach Vol, veh/h		495			465			1654			682	
Approach Delay, s/veh		49.4			63.2			45.8			59.9	
Approach LOS		D			E			D			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.6	44.0	30.0		19.4	8.0	66.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	39.5	25.5		18.0	6.7	58.3				
Max Q Clear Time (g_c+I1), s		12.4	39.7	25.9		14.0	4.4	19.4				
Green Ext Time (p_c), s		1.4	0.0	0.0		0.9	0.0	3.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				51.7								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

IY (2028) Without Project PM Peak Hour

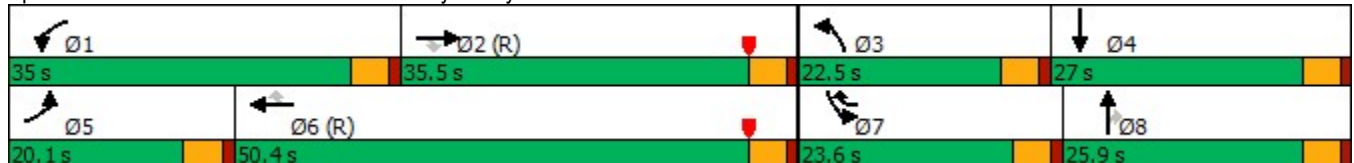
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	259	592	26	274	665	434	26	9	148	325	12
Future Volume (vph)	259	592	26	274	665	434	26	9	148	325	12
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.1	35.5	35.5	35.0	50.4	23.6	22.5	25.9	25.9	23.6	27.0
Total Split (%)	16.8%	29.6%	29.6%	29.2%	42.0%	19.7%	18.8%	21.6%	21.6%	19.7%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	14.0	37.2	37.2	24.3	47.5	71.1	18.0	21.4	21.4	19.1	22.5
Actuated g/C Ratio	0.12	0.31	0.31	0.20	0.40	0.59	0.15	0.18	0.18	0.16	0.19
v/c Ratio	0.68	0.57	0.05	0.80	0.50	0.44	0.10	0.03	0.38	0.63	0.61
Control Delay	59.9	38.2	0.2	62.5	32.1	15.9	45.2	41.1	9.5	52.8	10.4
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	59.9	38.2	0.2	62.5	32.1	15.9	45.2	41.1	9.5	52.8	10.4
LOS	E	D	A	E	C	B	D	D	A	D	B
Approach Delay		43.5			33.0			16.0			31.5
Approach LOS		D			C			B			C

Intersection Summary

























Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 34.7	Intersection LOS: C
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



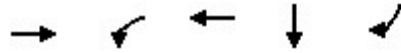
HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

IY (2028) Without Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	592	26	274	665	434	26	9	148	325	12	317
Future Volume (veh/h)	259	592	26	274	665	434	26	9	148	325	12	317
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	273	623	27	288	700	457	27	9	156	342	13	334
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	336	1182	527	320	1476	911	267	334	283	550	11	288
Arrive On Green	0.10	0.33	0.33	0.18	0.42	0.42	0.15	0.18	0.18	0.16	0.19	0.19
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	60	1534
Grp Volume(v), veh/h	273	623	27	288	700	457	27	9	156	342	0	347
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1594
Q Serve(g_s), s	9.3	17.0	1.4	19.0	17.2	20.7	1.6	0.5	10.8	11.1	0.0	22.5
Cycle Q Clear(g_c), s	9.3	17.0	1.4	19.0	17.2	20.7	1.6	0.5	10.8	11.1	0.0	22.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	336	1182	527	320	1476	911	267	334	283	550	0	299
V/C Ratio(X)	0.81	0.53	0.05	0.90	0.47	0.50	0.10	0.03	0.55	0.62	0.00	1.16
Avail Cap(c_a), veh/h	449	1182	527	453	1476	911	267	334	283	550	0	299
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(l)	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	53.1	32.4	27.2	48.2	25.5	15.3	44.0	40.7	44.9	47.1	0.0	48.8
Incr Delay (d2), s/veh	8.2	1.7	0.2	16.0	1.1	2.0	0.8	0.1	7.6	5.2	0.0	103.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	7.5	0.6	9.7	7.4	7.7	0.8	0.2	4.8	5.2	0.0	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	34.1	27.4	64.1	26.6	17.2	44.8	40.9	52.5	52.3	0.0	151.7
LnGrp LOS	E	C	C	E	C	B	D	D	D	D	A	F
Approach Vol, veh/h		923			1445			192				689
Approach Delay, s/veh		41.9			31.1			50.9				102.4
Approach LOS		D			C			D				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.1	44.4	22.5	27.0	16.2	54.3	23.6	25.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	30.5	31.0	18.0	22.5	15.6	45.9	19.1	21.4				
Max Q Clear Time (g_c+I1), s	21.0	19.0	3.6	24.5	11.3	22.7	13.1	12.8				
Green Ext Time (p_c), s	0.6	3.3	0.0	0.0	0.4	6.8	0.6	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			50.5									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) Without Project PM Peak Hour

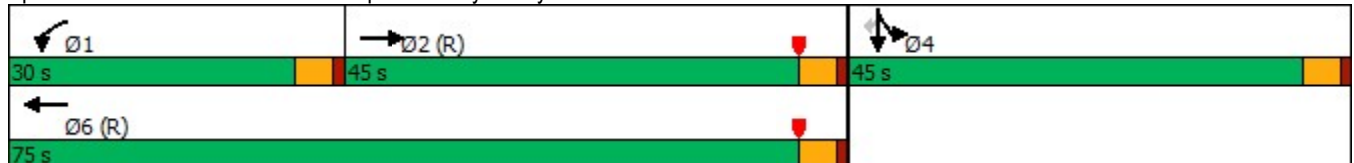


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑	↑↑
Traffic Volume (vph)	847	336	576	0	797
Future Volume (vph)	847	336	576	0	797
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	45.0	30.0	75.0	45.0	45.0
Total Split (%)	37.5%	25.0%	62.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Min	None	C-Min	Max	Max
Act Effct Green (s)	40.4	24.8	69.7	41.3	41.3
Actuated g/C Ratio	0.34	0.21	0.58	0.34	0.34
v/c Ratio	0.92	0.93	0.28	0.91	0.62
Control Delay	62.3	59.5	20.3	58.0	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	59.5	20.3	58.0	12.8
LOS	E	E	C	E	B
Approach Delay	62.3		34.7	31.2	
Approach LOS	E		C	C	

Intersection Summary


















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 80 (67%), 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: 42.1  
 Intersection Capacity Utilization 114.8%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service H

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) Without Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	847	218	336	576	0	0	0	0	546	0	797
Future Volume (veh/h)	0	847	218	336	576	0	0	0	0	546	0	797
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	856	220	339	582	0				552	0	805
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	975	251	359	2088	0				601	0	942
Arrive On Green	0.00	0.35	0.35	0.40	1.00	0.00				0.34	0.00	0.34
Sat Flow, veh/h	0	2892	719	1781	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	543	533	339	582	0				552	0	805
Grp Sat Flow(s),veh/h/ln	0	1777	1741	1781	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	34.4	34.5	22.0	0.0	0.0				35.7	0.0	32.2
Cycle Q Clear(g_c), s	0.0	34.4	34.5	22.0	0.0	0.0				35.7	0.0	32.2
Prop In Lane	0.00		0.41	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	619	607	359	2088	0				601	0	942
V/C Ratio(X)	0.00	0.88	0.88	0.94	0.28	0.00				0.92	0.00	0.86
Avail Cap(c_a), veh/h	0	619	607	379	2088	0				601	0	942
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	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	36.7	36.7	35.2	0.0	0.0				38.2	0.0	37.0
Incr Delay (d2), s/veh	0.0	16.1	16.4	23.7	0.2	0.0				21.3	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	17.3	17.1	9.9	0.1	0.0				18.9	0.0	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	52.8	53.1	58.9	0.2	0.0				59.4	0.0	46.8
LnGrp LOS	A	D	D	E	A	A				E	A	D
Approach Vol, veh/h		1076			921						1357	
Approach Delay, s/veh		53.0			21.8						52.0	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	28.7	46.3		45.0		75.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	25.5	40.5		40.5		70.5						
Max Q Clear Time (g_c+I1), s	24.0	36.5		37.7		2.0						
Green Ext Time (p_c), s	0.2	2.4		1.9		4.4						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			44.0									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

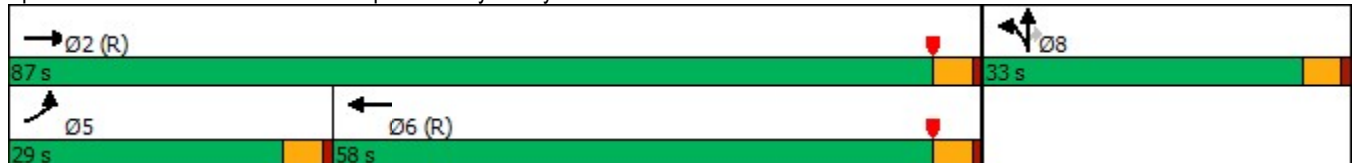
IY (2028) Without Project PM Peak Hour

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	496	898	673	9	405
Future Volume (vph)	496	898	673	9	405
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	29.0	87.0	58.0	33.0	33.0
Total Split (%)	24.2%	72.5%	48.3%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Min	C-Max	None	None
Act Effct Green (s)	22.3	87.5	60.8	23.5	23.5
Actuated g/C Ratio	0.19	0.73	0.51	0.20	0.20
v/c Ratio	0.82	0.70	0.70	0.76	0.84
Control Delay	69.2	6.2	9.8	59.0	41.1
Queue Delay	0.0	1.2	0.0	0.0	0.0
Total Delay	69.2	7.4	9.8	59.0	41.1
LOS	E	A	A	E	D
Approach Delay		29.4	9.8	47.9	
Approach LOS		C	A	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 26.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 114.8%  
 ICU Level of Service H  
 Analysis Period (min) 15




















Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

IY (2028) Without Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 							
Traffic Volume (veh/h)	496	898	0	0	673	509	240	9	405	0	0	0
Future Volume (veh/h)	496	898	0	0	673	509	240	9	405	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	522	945	0	0	708	536	253	9	426			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	582	1286	0	0	932	699	409	15	376			
Arrive On Green	0.34	1.00	0.00	0.00	0.32	0.32	0.24	0.24	0.24			
Sat Flow, veh/h	3456	1870	0	0	2029	1451	1723	61	1585			
Grp Volume(v), veh/h	522	945	0	0	649	595	262	0	426			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1609	1784	0	1585			
Q Serve(g_s), s	17.2	0.0	0.0	0.0	39.3	39.9	15.7	0.0	28.5			
Cycle Q Clear(g_c), s	17.2	0.0	0.0	0.0	39.3	39.9	15.7	0.0	28.5			
Prop In Lane	1.00		0.00	0.00		0.90	0.97		1.00			
Lane Grp Cap(c), veh/h	582	1286	0	0	856	775	424	0	376			
V/C Ratio(X)	0.90	0.73	0.00	0.00	0.76	0.77	0.62	0.00	1.13			
Avail Cap(c_a), veh/h	706	1286	0	0	856	775	424	0	376			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(l)	0.28	0.28	0.00	0.00	0.76	0.76	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.8	0.0	0.0	0.0	34.4	34.6	40.9	0.0	45.7			
Incr Delay (d2), s/veh	4.1	1.1	0.0	0.0	4.8	5.5	2.7	0.0	87.2			
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	6.3	0.4	0.0	0.0	18.8	17.4	7.2	0.0	20.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	1.1	0.0	0.0	39.2	40.1	43.6	0.0	132.9			
LnGrp LOS	D	A	A	A	D	D	D	A	F			
Approach Vol, veh/h		1467			1244			688				
Approach Delay, s/veh		16.0			39.6			98.9				
Approach LOS		B			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.0			24.7	62.3		33.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		82.5			24.5	53.5		28.5				
Max Q Clear Time (g_c+I1), s		2.0			19.2	41.9		30.5				
Green Ext Time (p_c), s		9.8			1.0	6.3		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				41.4								
HCM 6th LOS				D								

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) Without Project PM Peak Hour

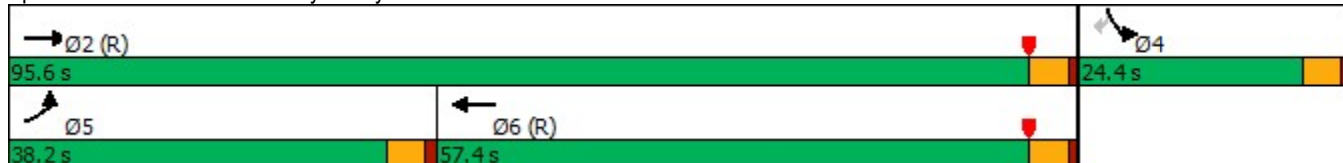


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗	↕	↖	↗
Traffic Volume (vph)	298	1006	934	118	248
Future Volume (vph)	298	1006	934	118	248
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	38.2	95.6	57.4	24.4	24.4
Total Split (%)	31.8%	79.7%	47.8%	20.3%	20.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max
Act Effct Green (s)	26.8	91.1	59.8	19.9	19.9
Actuated g/C Ratio	0.22	0.76	0.50	0.17	0.17
v/c Ratio	0.82	0.77	0.63	0.44	0.55
Control Delay	59.6	10.4	24.7	41.9	11.7
Queue Delay	0.0	0.6	0.0	0.0	0.0
Total Delay	59.6	11.0	24.7	41.9	11.7
LOS	E	B	C	D	B
Approach Delay		22.1	24.7	21.4	
Approach LOS		C	C	C	

Intersection Summary

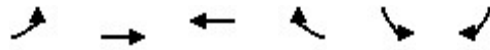
Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 23.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 67.0%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) Without Project PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	298	1006	934	74	118	248
Future Volume (veh/h)	298	1006	934	74	118	248
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	324	1093	1015	80	128	270
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	355	1420	1744	137	295	263
Arrive On Green	0.26	1.00	0.52	0.52	0.17	0.17
Sat Flow, veh/h	1781	1870	3430	263	1781	1585
Grp Volume(v), veh/h	324	1093	540	555	128	270
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1823	1781	1585
Q Serve(g_s), s	21.2	0.0	25.0	25.1	7.7	19.9
Cycle Q Clear(g_c), s	21.2	0.0	25.0	25.1	7.7	19.9
Prop In Lane	1.00			0.14	1.00	1.00
Lane Grp Cap(c), veh/h	355	1420	929	953	295	263
V/C Ratio(X)	0.91	0.77	0.58	0.58	0.43	1.03
Avail Cap(c_a), veh/h	500	1420	929	953	295	263
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.59	0.59	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	0.0	19.7	19.7	45.0	50.0
Incr Delay (d2), s/veh	11.0	2.4	2.7	2.6	4.6	62.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	1.0	10.6	10.9	3.8	20.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.2	2.4	22.3	22.3	49.6	112.8
LnGrp LOS	D	A	C	C	D	F
Approach Vol, veh/h		1417	1095		398	
Approach Delay, s/veh		14.3	22.3		92.4	
Approach LOS		B	C		F	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		95.6		24.4	28.4	67.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		91.1		19.9	33.7	52.9
Max Q Clear Time (g_c+I1), s		2.0		21.9	23.2	27.1
Green Ext Time (p_c), s		13.9		0.0	0.7	7.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			28.0			
HCM 6th LOS			C			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) Without Project PM Peak Hour



Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	399	1172	538
Future Volume (vph)	399	1172	538
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	26.0	34.0	34.0
Total Split (%)	43.3%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	18.4	32.6	32.6
Actuated g/C Ratio	0.31	0.54	0.54
v/c Ratio	0.79	0.66	0.57
Control Delay	29.9	12.6	11.2
Queue Delay	0.0	0.0	0.0
Total Delay	29.9	12.6	11.2
LOS	C	B	B
Approach Delay	29.9	12.6	11.2
Approach LOS	C	B	B

Intersection Summary

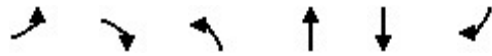
Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 15.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.1%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) Without Project PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	399	1	0	1172	538	0
Future Volume (veh/h)	399	1	0	1172	538	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	429	1	0	1260	578	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	486	1	0	2045	1077	0
Arrive On Green	0.33	0.27	0.00	0.58	0.58	0.00
Sat Flow, veh/h	1773	4	0	3741	1870	0
Grp Volume(v), veh/h	431	0	0	1260	578	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1777	1870	0
Q Serve(g_s), s	13.7	0.0	0.0	14.0	11.4	0.0
Cycle Q Clear(g_c), s	13.7	0.0	0.0	14.0	11.4	0.0
Prop In Lane	1.00	0.00	0.00			0.00
Lane Grp Cap(c), veh/h	489	0	0	2045	1077	0
V/C Ratio(X)	0.88	0.00	0.00	0.62	0.54	0.00
Avail Cap(c_a), veh/h	638	0	0	2045	1077	0
HCM Platoon Ratio	1.20	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.2	0.0	0.0	8.4	7.8	0.0
Incr Delay (d2), s/veh	11.2	0.0	0.0	1.4	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	0.0	4.3	3.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.4	0.0	0.0	9.8	9.7	0.0
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h	431			1260	578	
Approach Delay, s/veh	30.4			9.8	9.7	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		39.0		21.0		39.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.5		21.5		29.5
Max Q Clear Time (g_c+I1), s		16.0		15.7		13.4
Green Ext Time (p_c), s		7.3		0.8		3.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			13.7			
HCM 6th LOS			B			
<b>Notes</b>						
User approved volume balancing among the lanes for turning movement.						

Timings  
12: Roberts Rd. & Singleton Rd.

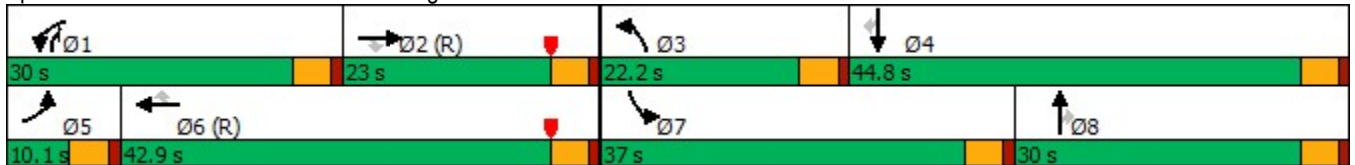
IY (2028) Without Project PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	455	98	299	508	529	129	72	309	435	54	4
Future Volume (vph)	18	455	98	299	508	529	129	72	309	435	54	4
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	10.1	23.0	23.0	30.0	42.9	42.9	22.2	30.0	30.0	37.0	44.8	44.8
Total Split (%)	8.4%	19.2%	19.2%	25.0%	35.8%	35.8%	18.5%	25.0%	25.0%	30.8%	37.3%	37.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	6.9	33.0	33.0	27.8	60.2	60.2	18.9	11.6	41.0	32.5	25.2	25.2
Actuated g/C Ratio	0.06	0.28	0.28	0.23	0.50	0.50	0.16	0.10	0.34	0.27	0.21	0.21
v/c Ratio	0.20	0.51	0.19	0.79	0.31	0.53	0.50	0.23	0.56	0.99	0.08	0.01
Control Delay	57.7	41.7	1.0	53.4	20.3	3.4	54.9	50.8	24.3	82.2	35.5	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	0.0
Total Delay	57.7	41.7	1.0	53.4	20.3	3.4	54.9	50.8	24.3	82.2	35.5	0.0
LOS	E	D	A	D	C	A	D	D	C	F	D	A
Approach Delay		35.2			21.0			35.8			76.4	
Approach LOS		D			C			D			E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 35.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 71.2%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

IY (2028) Without Project PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	455	98	299	508	529	129	72	309	435	54	4
Future Volume (veh/h)	18	455	98	299	508	529	129	72	309	435	54	4
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	20	495	96	325	552	548	140	78	282	473	59	4
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	36	786	351	348	1409	628	168	578	567	482	1204	537
Arrive On Green	0.02	0.22	0.22	0.33	0.66	0.66	0.09	0.16	0.16	0.27	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	495	96	325	552	548	140	78	282	473	59	4
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	15.1	6.0	21.2	8.5	33.2	9.3	2.3	16.7	31.6	1.3	0.2
Cycle Q Clear(g_c), s	1.3	15.1	6.0	21.2	8.5	33.2	9.3	2.3	16.7	31.6	1.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	786	351	348	1409	628	168	578	567	482	1204	537
V/C Ratio(X)	0.55	0.63	0.27	0.93	0.39	0.87	0.83	0.14	0.50	0.98	0.05	0.01
Avail Cap(c_a), veh/h	83	786	351	379	1409	628	263	755	647	482	1204	537
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.47	0.47	0.47	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	42.3	38.7	39.7	13.7	17.9	53.4	43.0	30.1	43.4	26.7	26.3
Incr Delay (d2), s/veh	12.6	3.8	1.9	16.9	0.4	8.1	12.2	0.1	0.7	35.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.1	2.5	9.9	3.0	9.7	4.7	1.0	6.5	18.6	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	46.1	40.7	56.6	14.1	25.9	65.6	43.1	30.8	79.2	26.7	26.3
LnGrp LOS	E	D	D	E	B	C	E	D	C	E	C	C
Approach Vol, veh/h		611			1425			500			536	
Approach Delay, s/veh		46.1			28.3			42.4			73.0	
Approach LOS		D			C			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.0	31.0	15.8	45.2	6.9	52.1	37.0	24.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	18.5	17.7	40.3	5.6	38.4	32.5	25.5				
Max Q Clear Time (g_c+I1), s	23.2	17.1	11.3	3.3	3.3	35.2	33.6	18.7				
Green Ext Time (p_c), s	0.2	0.5	0.2	0.3	0.0	1.8	0.0	0.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			41.9									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

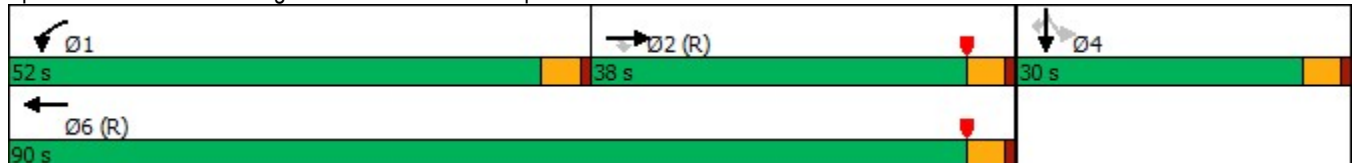
IY (2028) Sunday Morning Without Project

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑	↔	↘
Traffic Volume (vph)	528	238	303	576	0	314
Future Volume (vph)	528	238	303	576	0	314
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	38.0	38.0	52.0	90.0	30.0	30.0
Total Split (%)	31.7%	31.7%	43.3%	75.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	51.8	51.8	29.2	85.5	25.5	25.5
Actuated g/C Ratio	0.43	0.43	0.24	0.71	0.21	0.21
v/c Ratio	0.39	0.34	0.80	0.49	0.68	0.49
Control Delay	26.5	13.4	61.9	9.3	43.8	8.3
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	26.5	13.4	61.9	9.6	43.8	8.3
LOS	C	B	E	A	D	A
Approach Delay	22.4			27.6	26.5	
Approach LOS	C			C	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 25.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 65.8%  
 ICU Level of Service C  
 Analysis Period (min) 15













Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



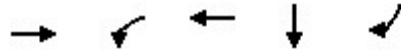


HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

IY (2028) Sunday Morning Without Project

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑						↕	↗
Traffic Volume (veh/h)	0	528	238	303	576	0	0	0	0	144	0	314
Future Volume (veh/h)	0	528	238	303	576	0	0	0	0	144	0	314
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	600	270	344	655	0				164	145	260
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1657	739	372	1333	0				205	182	337
Arrive On Green	0.00	0.47	0.47	0.42	1.00	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	3647	1585	1781	1870	0				967	855	1585
Grp Volume(v), veh/h	0	600	270	344	655	0				309	0	260
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1822	0	1585
Q Serve(g_s), s	0.0	13.0	13.1	22.0	0.0	0.0				19.3	0.0	18.5
Cycle Q Clear(g_c), s	0.0	13.0	13.1	22.0	0.0	0.0				19.3	0.0	18.5
Prop In Lane	0.00		1.00	1.00		0.00				0.53		1.00
Lane Grp Cap(c), veh/h	0	1657	739	372	1333	0				387	0	337
V/C Ratio(X)	0.00	0.36	0.37	0.93	0.49	0.00				0.80	0.00	0.77
Avail Cap(c_a), veh/h	0	1657	739	705	1333	0				387	0	337
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.80	0.80	0.64	0.64	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.6	20.6	34.1	0.0	0.0				44.8	0.0	44.5
Incr Delay (d2), s/veh	0.0	0.5	1.1	6.9	0.8	0.0				15.7	0.0	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.5	5.1	8.4	0.3	0.0				10.4	0.0	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.0	21.7	41.0	0.8	0.0				60.5	0.0	60.2
LnGrp LOS	A	C	C	D	A	A				E	A	E
Approach Vol, veh/h		870			999						569	
Approach Delay, s/veh		21.3			14.7						60.4	
Approach LOS		C			B						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.5	60.5		30.0		90.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	47.5	33.5		25.5		85.5						
Max Q Clear Time (g_c+I1), s	24.0	15.1		21.3		2.0						
Green Ext Time (p_c), s	1.0	4.9		1.1		5.4						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.7								
HCM 6th LOS				C								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

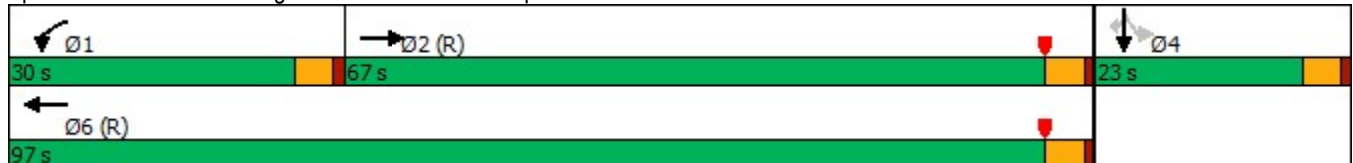


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↻	↻	↻	↻	↻
Traffic Volume (vph)	528	303	576	0	314
Future Volume (vph)	528	303	576	0	314
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	67.0	30.0	97.0	23.0	23.0
Total Split (%)	55.8%	25.0%	80.8%	19.2%	19.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	63.1	24.9	92.5	18.5	18.5
Actuated g/C Ratio	0.53	0.21	0.77	0.15	0.15
v/c Ratio	0.91	0.94	0.46	0.57	0.65
Control Delay	40.9	65.1	4.1	55.8	10.9
Queue Delay	0.0	0.0	0.4	0.0	0.0
Total Delay	40.9	65.1	4.5	55.8	10.9
LOS	D	E	A	E	B
Approach Delay	40.9		25.4	25.1	
Approach LOS	D		C	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 31.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 96.0%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↔	↔
Traffic Volume (veh/h)	0	528	238	303	576	0	0	0	0	144	0	314
Future Volume (veh/h)	0	528	238	303	576	0	0	0	0	144	0	314
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	600	270	344	655	0				164	0	357
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	647	291	364	1442	0				275	0	244
Arrive On Green	0.00	0.53	0.53	0.41	1.00	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	1222	550	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	870	344	655	0				164	0	357
Grp Sat Flow(s),veh/h/ln	0	0	1771	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	54.5	22.3	0.0	0.0				10.3	0.0	18.5
Cycle Q Clear(g_c), s	0.0	0.0	54.5	22.3	0.0	0.0				10.3	0.0	18.5
Prop In Lane	0.00		0.31	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	938	364	1442	0				275	0	244
V/C Ratio(X)	0.00	0.00	0.93	0.95	0.45	0.00				0.60	0.00	1.46
Avail Cap(c_a), veh/h	0	0	938	379	1442	0				275	0	244
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.63	0.63	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	26.1	34.9	0.0	0.0				47.3	0.0	50.8
Incr Delay (d2), s/veh	0.0	0.0	16.4	23.7	0.7	0.0				9.2	0.0	228.6
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	0.0	26.1	10.2	0.3	0.0				5.3	0.0	22.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	42.6	58.6	0.7	0.0				56.5	0.0	279.4
LnGrp LOS	A	A	D	E	A	A				E	A	F
Approach Vol, veh/h		870			999						521	
Approach Delay, s/veh		42.6			20.6						209.2	
Approach LOS		D			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.0	68.0		23.0		97.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	25.5	62.5		18.5		92.5						
Max Q Clear Time (g_c+I1), s	24.3	56.5		20.5		2.0						
Green Ext Time (p_c), s	0.1	3.2		0.0		5.4						

Intersection Summary













HCM 6th Ctrl Delay	69.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Timings  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) Sunday Morning Without Project

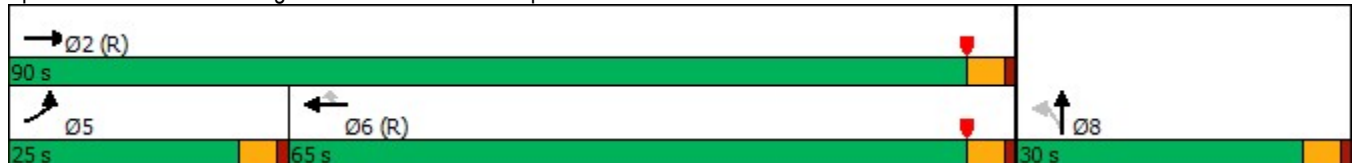
						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	260	412	581	119	299	0
Future Volume (vph)	260	412	581	119	299	0
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	5	2	6			8
Permitted Phases				6	8	
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	25.0	90.0	65.0	65.0	30.0	30.0
Total Split (%)	20.8%	75.0%	54.2%	54.2%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	15.1	86.5	66.9	66.9	24.5	24.5
Actuated g/C Ratio	0.13	0.72	0.56	0.56	0.20	0.20
v/c Ratio	0.65	0.33	0.61	0.14	0.90	0.40
Control Delay	57.0	7.2	12.9	0.4	74.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	7.2	12.9	0.4	74.7	1.7
LOS	E	A	B	A	E	A
Approach Delay		26.4	10.8			40.7
Approach LOS		C	B			D

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 24.9  
 Intersection Capacity Utilization 65.8%  
 Analysis Period (min) 15

Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps











HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) Sunday Morning Without Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	412	0	0	581	119	299	0	261	0	0	0
Future Volume (veh/h)	260	412	0	0	581	119	299	0	261	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	283	448	0	0	632	129	325	0	284			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	347	1355	0	0	1097	930	357	0	318			
Arrive On Green	0.20	1.00	0.00	0.00	1.00	1.00	0.20	0.00	0.20			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	283	448	0	0	632	129	325	0	284			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	9.4	0.0	0.0	0.0	0.0	0.0	21.4	0.0	20.9			
Cycle Q Clear(g_c), s	9.4	0.0	0.0	0.0	0.0	0.0	21.4	0.0	20.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	347	1355	0	0	1097	930	357	0	318			
V/C Ratio(X)	0.82	0.33	0.00	0.00	0.58	0.14	0.91	0.00	0.89			
Avail Cap(c_a), veh/h	590	1355	0	0	1097	930	379	0	337			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.93	0.93	0.00	0.00	0.93	0.93	1.00	0.00	1.00			
Uniform Delay (d), s/veh	46.9	0.0	0.0	0.0	0.0	0.0	46.9	0.0	46.7			
Incr Delay (d2), s/veh	4.4	0.6	0.0	0.0	2.1	0.3	24.6	0.0	23.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.9	0.2	0.0	0.0	0.6	0.1	11.9	0.0	10.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	0.6	0.0	0.0	2.1	0.3	71.5	0.0	70.6			
LnGrp LOS	D	A	A	A	A	A	E	A	E			
Approach Vol, veh/h		731			761			609				
Approach Delay, s/veh		20.2			1.8			71.0				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		91.4			16.5	74.9		28.6				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		85.5			20.5	60.5		25.5				
Max Q Clear Time (g_c+I1), s		2.0			11.4	2.0		23.4				
Green Ext Time (p_c), s		3.2			0.7	5.6		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					28.3							
HCM 6th LOS					C							

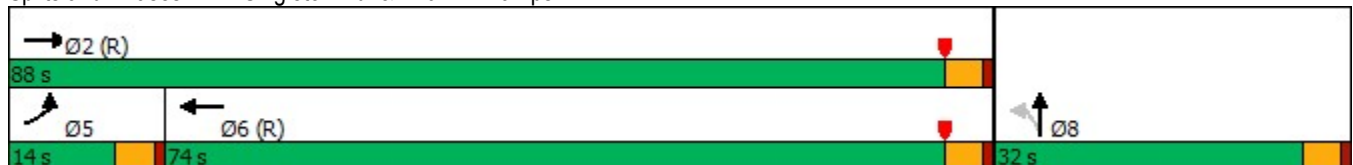
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	260	412	581	0
Future Volume (vph)	260	412	581	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	73.0	28.0
Total Split (s)	14.0	88.0	74.0	32.0
Total Split (%)	11.7%	73.3%	61.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	9.5	83.5	69.5	27.5
Actuated g/C Ratio	0.08	0.70	0.58	0.23
v/c Ratio	2.02	0.35	0.72	1.41
Control Delay	499.9	9.3	22.6	231.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	499.9	9.3	22.6	231.8
LOS	F	A	C	F
Approach Delay		199.2	22.6	231.8
Approach LOS		F	C	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.02  
 Intersection Signal Delay: 144.7  
 Intersection LOS: F  
 Intersection Capacity Utilization 96.0%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	412	0	0	581	119	299	0	261	0	0	0
Future Volume (veh/h)	260	412	0	0	581	119	299	0	261	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	283	448	0	0	632	129	325	0	284			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	141	1301	0	0	873	178	206	0	180			
Arrive On Green	0.16	1.00	0.00	0.00	0.58	0.58	0.23	0.00	0.23			
Sat Flow, veh/h	1781	1870	0	0	1507	308	899	0	785			
Grp Volume(v), veh/h	283	448	0	0	0	761	609	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1815	1684	0	0			
Q Serve(g_s), s	9.5	0.0	0.0	0.0	0.0	36.5	27.5	0.0	0.0			
Cycle Q Clear(g_c), s	9.5	0.0	0.0	0.0	0.0	36.5	27.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.17	0.53		0.47			
Lane Grp Cap(c), veh/h	141	1301	0	0	0	1051	386	0	0			
V/C Ratio(X)	2.01	0.34	0.00	0.00	0.00	0.72	1.58	0.00	0.00			
Avail Cap(c_a), veh/h	141	1301	0	0	0	1051	386	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.28	0.28	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	50.5	0.0	0.0	0.0	0.0	18.3	46.3	0.0	0.0			
Incr Delay (d2), s/veh	460.1	0.2	0.0	0.0	0.0	4.3	272.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	21.9	0.1	0.0	0.0	0.0	15.9	40.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	510.6	0.2	0.0	0.0	0.0	22.6	318.5	0.0	0.0			
LnGrp LOS	F	A	A	A	A	C	F	A	A			
Approach Vol, veh/h		731			761			609				
Approach Delay, s/veh		197.8			22.6			318.5				
Approach LOS		F			C			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		88.0			14.0	74.0		32.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		83.5			9.5	69.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0			11.5	38.5		29.5				
Green Ext Time (p_c), s		3.2			0.0	6.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					169.3							
HCM 6th LOS					F							

Timings  
3: Calimesa Bl. & Singleton Rd.

IY (2028) Sunday Morning Without Project

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	116	514	34	560	34	51	118	72	106
Future Volume (vph)	116	514	34	560	34	51	118	72	106
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	7	4	
Permitted Phases									4
Detector Phase	5	2	1	6	3	8	7	4	4
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)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	23.0	64.0	11.0	52.0	13.8	30.0	15.0	31.2	31.2
Total Split (%)	19.2%	53.3%	9.2%	43.3%	11.5%	25.0%	12.5%	26.0%	26.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	13.5	72.7	7.1	62.0	12.3	12.0	14.5	18.4	18.4
Actuated g/C Ratio	0.11	0.61	0.06	0.52	0.10	0.10	0.12	0.15	0.15
v/c Ratio	0.62	0.28	0.35	0.41	0.20	0.48	0.59	0.27	0.32
Control Delay	61.5	11.0	70.4	17.1	20.0	67.6	61.0	49.8	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	11.0	70.4	17.1	20.0	67.6	61.0	49.8	7.1
LOS	E	B	E	B	C	E	E	D	A
Approach Delay		19.7		19.7		54.5		39.0	
Approach LOS		B		B		D		D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 25.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 50.3%  
 ICU Level of Service A  
 Analysis Period (min) 15






















Splits and Phases: 3: Calimesa Bl. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

IY (2028) Sunday Morning Without Project

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	514	42	34	560	122	34	51	39	118	72	106
Future Volume (veh/h)	116	514	42	34	560	122	34	51	39	118	72	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		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	123	547	45	36	596	130	36	54	41	126	77	113
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	149	2170	178	52	1736	378	151	82	62	152	156	132
Arrive On Green	0.17	1.00	1.00	0.06	1.00	1.00	0.09	0.08	0.08	0.09	0.08	0.08
Sat Flow, veh/h	1781	3325	273	1781	2902	631	1781	987	749	1781	1870	1585
Grp Volume(v), veh/h	123	292	300	36	364	362	36	0	95	126	77	113
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1757	1781	0	1736	1781	1870	1585
Q Serve(g_s), s	8.0	0.0	0.0	2.4	0.0	0.0	2.3	0.0	6.4	8.4	4.7	7.0
Cycle Q Clear(g_c), s	8.0	0.0	0.0	2.4	0.0	0.0	2.3	0.0	6.4	8.4	4.7	7.0
Prop In Lane	1.00		0.15	1.00		0.36	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	149	1159	1188	52	1063	1051	151	0	145	152	156	132
V/C Ratio(X)	0.83	0.25	0.25	0.69	0.34	0.34	0.24	0.00	0.66	0.83	0.49	0.86
Avail Cap(c_a), veh/h	275	1159	1188	96	1063	1051	151	0	369	156	416	353
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	0.0	56.0	0.0	0.0	51.3	0.0	53.3	54.1	52.6	37.1
Incr Delay (d2), s/veh	10.5	0.5	0.5	15.3	0.9	0.9	0.8	0.0	5.0	29.5	2.4	14.3
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	3.7	0.2	0.2	1.3	0.3	0.3	1.0	0.0	3.0	5.0	2.3	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	0.5	0.5	71.3	0.9	0.9	52.1	0.0	58.3	83.6	55.0	51.4
LnGrp LOS	E	A	A	E	A	A	D	A	E	F	D	D
Approach Vol, veh/h		715			762			131			316	
Approach Delay, s/veh		10.7			4.2			56.6			65.1	
Approach LOS		B			A			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	82.8	14.7	14.5	14.5	76.3	14.7	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	59.5	9.3	26.7	18.5	47.5	10.5	25.5				
Max Q Clear Time (g_c+I1), s	4.4	2.0	4.3	9.0	10.0	2.0	10.4	8.4				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.7	0.2	5.4	0.0	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				20.2								
HCM 6th LOS				C								

Timings  
4: Beckwith Av. & Singleton Rd.

IY (2028) Sunday Morning Without Project

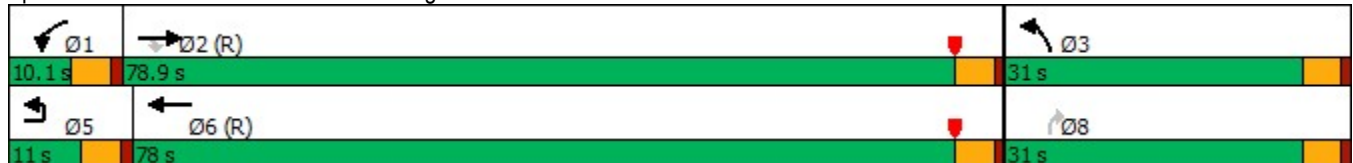


Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↖	↗
Traffic Volume (vph)	34	455	186	46	524	177	44
Future Volume (vph)	34	455	186	46	524	177	44
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	3	
Permitted Phases			2				8
Detector Phase	5	2	2	1	6	3	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	11.0	78.9	78.9	10.1	78.0	31.0	31.0
Total Split (%)	9.2%	65.8%	65.8%	8.4%	65.0%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max
Act Effct Green (s)	6.3	76.4	76.4	5.6	77.9	26.5	26.5
Actuated g/C Ratio	0.05	0.64	0.64	0.05	0.65	0.22	0.22
v/c Ratio	0.40	0.40	0.18	0.59	0.46	0.48	0.12
Control Delay	71.8	11.7	2.8	83.8	12.8	45.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.8	11.7	2.8	83.8	12.8	45.5	11.6
LOS	E	B	A	F	B	D	B
Approach Delay		12.4			18.5	38.8	
Approach LOS		B			B	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.59  
 Intersection Signal Delay: 18.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 52.8%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

IY (2028) Sunday Morning Without Project



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	→	↲	↰	→	↲	↲
Traffic Volume (veh/h)	34	455	186	46	524	177	44
Future Volume (veh/h)	34	455	186	46	524	177	44
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		479	196	48	552	186	46
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1365	1157	62	1500	219	195
Arrive On Green		1.00	1.00	0.03	0.80	0.12	0.12
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		479	196	48	552	186	46
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		0.0	0.0	3.2	10.0	12.3	3.1
Cycle Q Clear(g_c), s		0.0	0.0	3.2	10.0	12.3	3.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1365	1157	62	1500	219	195
V/C Ratio(X)		0.35	0.17	0.78	0.37	0.85	0.24
Avail Cap(c_a), veh/h		1365	1157	83	1500	393	350
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	57.5	3.3	51.5	47.5
Incr Delay (d2), s/veh		0.7	0.3	27.1	0.7	8.8	0.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.3	0.1	1.9	3.2	6.0	1.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		0.7	0.3	84.5	4.0	60.3	48.1
LnGrp LOS		A	A	F	A	E	D
Approach Vol, veh/h		675			600	232	
Approach Delay, s/veh		0.6			10.5	57.9	
Approach LOS		A			B	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	8.7	92.1			100.7	19.3	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	5.6	74.4			73.5	26.5	
Max Q Clear Time (g_c+I1), s	5.2	2.0			12.0	14.3	
Green Ext Time (p_c), s	0.0	4.2			4.2	0.5	

Intersection Summary

HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
6: Calimesa Bl. & 5th St.

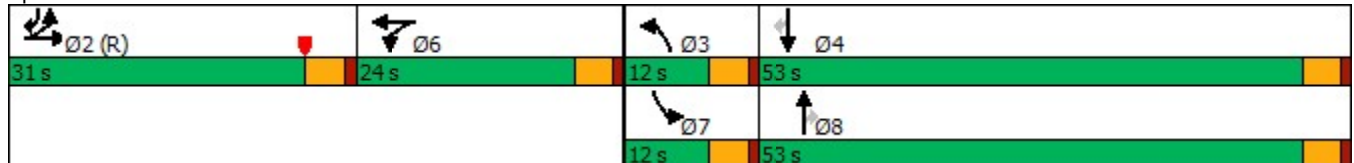
IY (2028) Sunday Morning Without Project

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	83	62	73	194	70	415	159	36	162	348
Future Volume (vph)	83	62	73	194	70	415	159	36	162	348
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	31.0	31.0	24.0	24.0	12.0	53.0	53.0	12.0	53.0	31.0
Total Split (%)	25.8%	25.8%	20.0%	20.0%	10.0%	44.2%	44.2%	10.0%	44.2%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	26.5	26.5	13.8	13.8	7.8	56.0	56.0	7.7	56.0	87.0
Actuated g/C Ratio	0.22	0.22	0.12	0.12	0.06	0.47	0.47	0.06	0.47	0.72
v/c Ratio	0.19	0.17	0.39	0.62	0.35	0.53	0.22	0.35	0.20	0.32
Control Delay	39.7	27.8	54.1	53.6	52.5	25.3	10.1	62.0	21.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.7	27.8	54.1	53.6	52.5	25.3	10.1	62.0	21.5	4.0
LOS	D	C	D	D	D	C	B	E	C	A
Approach Delay		31.9		53.7		24.5			13.0	
Approach LOS		C		D		C			B	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 26.8  
 Intersection Capacity Utilization 53.5%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

IY (2028) Sunday Morning Without Project

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	62	33	73	194	37	70	415	159	36	162	348
Future Volume (veh/h)	83	62	33	73	194	37	70	415	159	36	162	348
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	65	104	36	80	213	41	77	456	175	40	178	382
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	554	836	277	172	288	54	133	770	653	55	756	1133
Arrive On Green	0.31	0.31	0.31	0.10	0.10	0.10	0.04	0.41	0.41	0.03	0.40	0.40
Sat Flow, veh/h	1781	2690	890	1781	2982	564	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	65	71	69	80	125	129	77	456	175	40	178	382
Grp Sat Flow(s),veh/h/ln	1781	1870	1710	1781	1777	1769	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.1	3.3	3.5	5.1	8.2	8.5	2.6	22.8	8.8	2.7	7.5	10.9
Cycle Q Clear(g_c), s	3.1	3.3	3.5	5.1	8.2	8.5	2.6	22.8	8.8	2.7	7.5	10.9
Prop In Lane	1.00		0.52	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	554	581	531	172	172	171	133	770	653	55	756	1133
V/C Ratio(X)	0.12	0.12	0.13	0.46	0.73	0.75	0.58	0.59	0.27	0.73	0.24	0.34
Avail Cap(c_a), veh/h	554	581	531	289	289	287	216	770	653	111	756	1133
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	29.6	29.6	29.7	51.3	52.7	52.8	56.7	27.4	23.3	57.7	23.5	6.4
Incr Delay (d2), s/veh	0.4	0.4	0.5	1.9	5.8	6.5	3.9	3.3	1.0	17.0	0.7	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	1.4	1.5	1.5	2.4	4.0	4.1	1.2	10.7	3.4	1.5	3.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	30.1	30.2	53.2	58.5	59.3	60.7	30.8	24.3	74.7	24.3	7.2
LnGrp LOS	C	C	C	D	E	E	E	C	C	E	C	A
Approach Vol, veh/h		205			334			708			600	
Approach Delay, s/veh		30.1			57.6			32.4			16.8	
Approach LOS		C			E			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		41.8	9.1	53.0		16.1	8.2	53.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	7.5	48.5		19.5	7.5	48.5				
Max Q Clear Time (g_c+I1), s		5.5	4.6	12.9		10.5	4.7	24.8				
Green Ext Time (p_c), s		0.9	0.0	2.5		1.1	0.0	3.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				31.6								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
7: Roberts Rd. & Cherry Valley Bl.

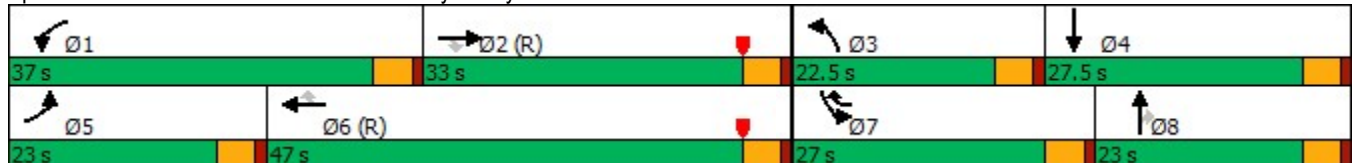
IY (2028) Sunday Morning Without Project

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	295	453	45	273	452	331	25	3	158	384	12
Future Volume (vph)	295	453	45	273	452	331	25	3	158	384	12
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	33.0	33.0	37.0	47.0	27.0	22.5	23.0	23.0	27.0	27.5
Total Split (%)	19.2%	27.5%	27.5%	30.8%	39.2%	22.5%	18.8%	19.2%	19.2%	22.5%	22.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	15.8	36.2	36.2	24.8	45.2	72.2	18.0	18.5	18.5	22.5	23.0
Actuated g/C Ratio	0.13	0.30	0.30	0.21	0.38	0.60	0.15	0.15	0.15	0.19	0.19
v/c Ratio	0.69	0.45	0.08	0.79	0.36	0.33	0.10	0.01	0.44	0.64	0.48
Control Delay	58.1	36.8	0.3	53.5	25.4	6.7	45.2	43.3	10.5	50.1	10.3
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	58.1	36.8	0.3	53.5	25.4	6.7	45.2	43.3	10.5	50.1	10.3
LOS	E	D	A	D	C	A	D	D	B	D	B
Approach Delay		42.6			26.8			15.7			35.6
Approach LOS		D			C			B			D

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 59.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

IY (2028) Sunday Morning Without Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	453	45	273	452	331	25	3	158	384	12	209
Future Volume (veh/h)	295	453	45	273	452	331	25	3	158	384	12	209
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	314	482	48	290	481	352	27	3	168	409	13	222
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	1162	518	323	1415	928	267	288	244	648	17	289
Arrive On Green	0.11	0.33	0.33	0.18	0.40	0.40	0.15	0.15	0.15	0.19	0.19	0.19
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	88	1510
Grp Volume(v), veh/h	314	482	48	290	481	352	27	3	168	409	0	235
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1599
Q Serve(g_s), s	10.7	12.7	2.5	19.1	11.3	14.2	1.6	0.2	12.0	13.1	0.0	16.7
Cycle Q Clear(g_c), s	10.7	12.7	2.5	19.1	11.3	14.2	1.6	0.2	12.0	13.1	0.0	16.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.94
Lane Grp Cap(c), veh/h	381	1162	518	323	1415	928	267	288	244	648	0	306
V/C Ratio(X)	0.82	0.41	0.09	0.90	0.34	0.38	0.10	0.01	0.69	0.63	0.00	0.77
Avail Cap(c_a), veh/h	533	1162	518	482	1415	928	267	288	244	648	0	306
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	52.3	31.4	28.0	48.0	25.1	13.2	44.0	43.0	48.0	44.9	0.0	46.0
Incr Delay (d2), s/veh	7.2	1.1	0.4	14.1	0.7	1.2	0.8	0.1	14.7	4.6	0.0	16.7
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	5.0	5.6	1.0	9.6	4.8	5.2	0.8	0.1	5.8	6.0	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	32.5	28.4	62.1	25.8	14.4	44.8	43.1	62.7	49.6	0.0	62.6
LnGrp LOS	E	C	C	E	C	B	D	D	E	D	A	E
Approach Vol, veh/h		844			1123			198			644	
Approach Delay, s/veh		42.3			31.6			59.9			54.3	
Approach LOS		D			C			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.3	43.7	22.5	27.5	17.7	52.3	27.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	32.5	28.5	18.0	23.0	18.5	42.5	22.5	18.5				
Max Q Clear Time (g_c+I1), s	21.1	14.7	3.6	18.7	12.7	16.2	15.1	14.0				
Green Ext Time (p_c), s	0.7	2.7	0.0	0.5	0.6	4.6	0.9	0.2				

Intersection Summary

HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

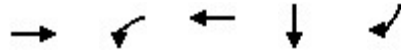
Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.



Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) Sunday Morning Without Project

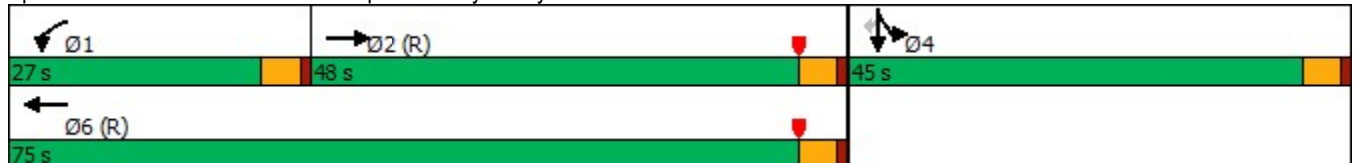


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↖	↑↑	↖	↖↖
Traffic Volume (vph)	791	224	513	2	542
Future Volume (vph)	791	224	513	2	542
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	48.0	27.0	75.0	45.0	45.0
Total Split (%)	40.0%	22.5%	62.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Min	None	C-Min	Max	Max
Act Effct Green (s)	42.7	19.6	66.8	44.2	44.2
Actuated g/C Ratio	0.36	0.16	0.56	0.37	0.37
v/c Ratio	0.84	0.81	0.27	0.71	0.41
Control Delay	54.9	68.1	24.1	40.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.9	68.1	24.1	40.6	3.2
LOS	D	E	C	D	A
Approach Delay	54.9		37.4	20.0	
Approach LOS	D		D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 107.7 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 37.5  
 Intersection Capacity Utilization 76.6%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service D


















Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.















HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) Sunday Morning Without Project

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	791	203	224	513	0	0	0	0	442	2	542
Future Volume (veh/h)	0	791	203	224	513	0	0	0	0	442	2	542
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	824	211	233	534	0				460	2	565
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1135	290	258	2088	0				599	3	942
Arrive On Green	0.00	0.41	0.41	0.29	1.00	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	2895	717	1781	3647	0				1774	8	2790
Grp Volume(v), veh/h	0	523	512	233	534	0				462	0	565
Grp Sat Flow(s),veh/h/ln	0	1777	1741	1781	1777	0				1782	0	1395
Q Serve(g_s), s	0.0	29.8	29.8	15.1	0.0	0.0				27.8	0.0	20.2
Cycle Q Clear(g_c), s	0.0	29.8	29.8	15.1	0.0	0.0				27.8	0.0	20.2
Prop In Lane	0.00		0.41	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	720	705	258	2088	0				601	0	942
V/C Ratio(X)	0.00	0.73	0.73	0.90	0.26	0.00				0.77	0.00	0.60
Avail Cap(c_a), veh/h	0	720	705	334	2088	0				601	0	942
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.1	30.1	41.8	0.0	0.0				35.6	0.0	33.0
Incr Delay (d2), s/veh	0.0	6.3	6.4	19.7	0.2	0.0				9.1	0.0	2.8
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	0.0	13.6	13.4	6.9	0.1	0.0				13.5	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.4	36.5	61.5	0.2	0.0				44.7	0.0	35.8
LnGrp LOS	A	D	D	E	A	A				D	A	D
Approach Vol, veh/h		1035			767						1027	
Approach Delay, s/veh		36.5			18.8						39.8	
Approach LOS		D			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.9	53.1		45.0		75.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.5	43.5		40.5		70.5						
Max Q Clear Time (g_c+I1), s	17.1	31.8		29.8		2.0						
Green Ext Time (p_c), s	0.3	5.1		4.1		4.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				32.9								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

IY (2028) Sunday Morning Without Project

					
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	618	615	546	5	309
Future Volume (vph)	618	615	546	5	309
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	90.0	52.0	30.0	30.0
Total Split (%)	31.7%	75.0%	43.3%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Min	C-Max	None	None
Act Effct Green (s)	27.2	92.0	60.3	19.0	19.0
Actuated g/C Ratio	0.23	0.77	0.50	0.16	0.16
v/c Ratio	0.80	0.44	0.53	0.70	0.56
Control Delay	55.2	6.4	7.1	60.8	8.6
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	55.2	6.6	7.1	60.8	8.6
LOS	E	A	A	E	A
Approach Delay		31.0	7.1	28.9	
Approach LOS		C	A	C	

Intersection Summary




















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 22.3  
 Intersection Capacity Utilization 76.6%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



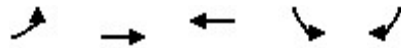
HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

IY (2028) Sunday Morning Without Project

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 							
Traffic Volume (veh/h)	618	615	0	0	546	365	191	5	309	0	0	0
Future Volume (veh/h)	618	615	0	0	546	365	191	5	309	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	624	621	0	0	552	369	193	5	312			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	701	1336	0	0	966	646	366	9	334			
Arrive On Green	0.34	1.00	0.00	0.00	0.95	0.95	0.21	0.21	0.21			
Sat Flow, veh/h	3456	1870	0	0	2133	1363	1738	45	1585			
Grp Volume(v), veh/h	624	621	0	0	481	440	198	0	312			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1625	1783	0	1585			
Q Serve(g_s), s	20.5	0.0	0.0	0.0	3.7	3.7	11.8	0.0	23.2			
Cycle Q Clear(g_c), s	20.5	0.0	0.0	0.0	3.7	3.7	11.8	0.0	23.2			
Prop In Lane	1.00		0.00	0.00		0.84	0.97		1.00			
Lane Grp Cap(c), veh/h	701	1336	0	0	842	770	376	0	334			
V/C Ratio(X)	0.89	0.46	0.00	0.00	0.57	0.57	0.53	0.00	0.93			
Avail Cap(c_a), veh/h	965	1336	0	0	842	770	379	0	337			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.44	0.44	0.00	0.00	0.83	0.83	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.4	0.0	0.0	0.0	1.8	1.8	42.0	0.0	46.5			
Incr Delay (d2), s/veh	3.8	0.5	0.0	0.0	2.3	2.6	1.3	0.0	32.3			
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	7.9	0.2	0.0	0.0	1.3	1.2	5.4	0.0	12.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	0.5	0.0	0.0	4.1	4.3	43.4	0.0	78.8			
LnGrp LOS	D	A	A	A	A	A	D	A	E			
Approach Vol, veh/h		1245			921			510				
Approach Delay, s/veh		21.4			4.2			65.1				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		90.2			28.9	61.4		29.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		85.5			33.5	47.5		25.5				
Max Q Clear Time (g_c+I1), s		2.0			22.5	5.7		25.2				
Green Ext Time (p_c), s		4.7			1.8	7.2		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					23.8							
HCM 6th LOS					C							

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) Sunday Morning Without Project

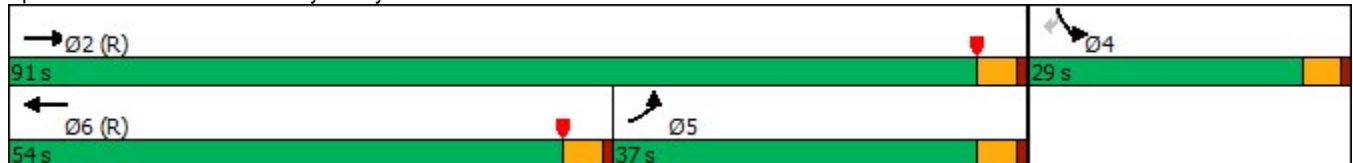


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗	↕↔	↖	↗
Traffic Volume (vph)	225	700	689	74	222
Future Volume (vph)	225	700	689	74	222
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	37.0	91.0	54.0	29.0	29.0
Total Split (%)	30.8%	75.8%	45.0%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max
Act Effct Green (s)	32.5	86.5	49.5	24.5	24.5
Actuated g/C Ratio	0.27	0.72	0.41	0.20	0.20
v/c Ratio	0.49	0.55	0.56	0.22	0.46
Control Delay	43.1	9.9	28.4	36.4	8.6
Queue Delay	0.0	0.3	0.0	0.0	0.0
Total Delay	43.1	10.2	28.4	36.4	8.6
LOS	D	B	C	D	A
Approach Delay		18.2	28.4	15.6	
Approach LOS		B	C	B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.56  
 Intersection Signal Delay: 21.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 49.6%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) Sunday Morning Without Project



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	225	700	689	84	74	222
Future Volume (veh/h)	225	700	689	84	74	222
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	237	737	725	88	78	234
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	482	1348	1316	160	364	324
Arrive On Green	0.54	1.00	0.41	0.41	0.20	0.20
Sat Flow, veh/h	1781	1870	3284	387	1781	1585
Grp Volume(v), veh/h	237	737	404	409	78	234
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1801	1781	1585
Q Serve(g_s), s	10.0	0.0	20.7	20.7	4.4	16.5
Cycle Q Clear(g_c), s	10.0	0.0	20.7	20.7	4.4	16.5
Prop In Lane	1.00			0.21	1.00	1.00
Lane Grp Cap(c), veh/h	482	1348	733	743	364	324
V/C Ratio(X)	0.49	0.55	0.55	0.55	0.21	0.72
Avail Cap(c_a), veh/h	482	1348	733	743	364	324
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.87	0.87	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	26.8	26.8	39.7	44.6
Incr Delay (d2), s/veh	0.7	1.4	3.0	2.9	1.3	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.5	9.2	9.3	2.0	15.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.0	1.4	29.8	29.7	41.1	57.7
LnGrp LOS	C	A	C	C	D	E
Approach Vol, veh/h		974	813		312	
Approach Delay, s/veh		6.7	29.7		53.6	
Approach LOS		A	C		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		91.0		29.0	37.0	54.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		86.5		24.5	32.5	49.5
Max Q Clear Time (g_c+I1), s		2.0		18.5	12.0	22.7
Green Ext Time (p_c), s		6.2		0.5	0.6	5.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			22.6			
HCM 6th LOS			C			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) Sunday Morning Without Project

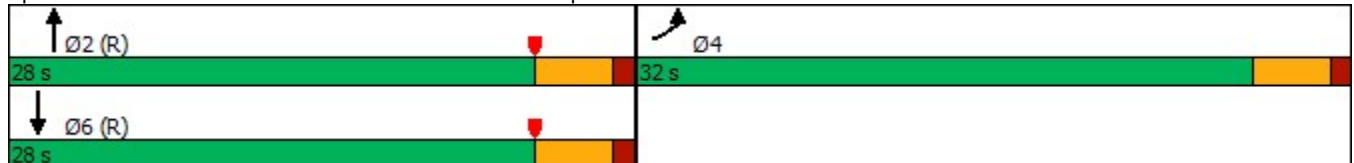


Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	381	263	269
Future Volume (vph)	381	263	269
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	32.0	28.0	28.0
Total Split (%)	53.3%	46.7%	46.7%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	19.8	31.2	31.2
Actuated g/C Ratio	0.33	0.52	0.52
v/c Ratio	0.73	0.16	0.31
Control Delay	24.7	9.1	9.3
Queue Delay	0.0	0.0	0.0
Total Delay	24.7	9.1	9.3
LOS	C	A	A
Approach Delay	24.7	9.1	9.3
Approach LOS	C	A	A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 15.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 43.1%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) Sunday Morning Without Project



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑	
Traffic Volume (veh/h)	381	5	0	263	269	0
Future Volume (veh/h)	381	5	0	263	269	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	423	6	0	292	299	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	490	7	0	2026	1066	0
Arrive On Green	0.31	0.28	0.00	0.57	0.57	0.00
Sat Flow, veh/h	1749	25	0	3741	1870	0
Grp Volume(v), veh/h	430	0	0	292	299	0
Grp Sat Flow(s),veh/h/ln	1778	0	0	1777	1870	0
Q Serve(g_s), s	13.7	0.0	0.0	2.3	4.9	0.0
Cycle Q Clear(g_c), s	13.7	0.0	0.0	2.3	4.9	0.0
Prop In Lane	0.98	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	498	0	0	2026	1066	0
V/C Ratio(X)	0.86	0.00	0.00	0.14	0.28	0.00
Avail Cap(c_a), veh/h	815	0	0	2026	1066	0
HCM Platoon Ratio	1.10	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	0.0	6.0	6.6	0.0
Incr Delay (d2), s/veh	5.5	0.0	0.0	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	0.0	0.7	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.2	0.0	0.0	6.2	7.3	0.0
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h	430			292	299	
Approach Delay, s/veh	25.2			6.2	7.3	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		23.5		27.5		23.5
Max Q Clear Time (g_c+I1), s		4.3		15.7		6.9
Green Ext Time (p_c), s		1.7		1.1		1.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			14.5			
HCM 6th LOS			B			

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

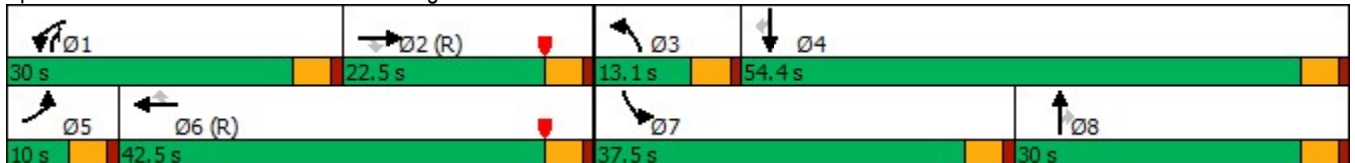
IY (2028) Sunday Morning Without Project

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	307	58	79	355	435	64	49	68	387	45	2
Future Volume (vph)	4	307	58	79	355	435	64	49	68	387	45	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	10.0	22.5	22.5	30.0	42.5	42.5	13.1	30.0	30.0	37.5	54.4	54.4
Total Split (%)	8.3%	18.8%	18.8%	25.0%	35.4%	35.4%	10.9%	25.0%	25.0%	31.3%	45.3%	45.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	5.9	50.9	50.9	11.2	64.4	64.4	7.9	11.6	24.4	31.2	34.1	34.1
Actuated g/C Ratio	0.05	0.42	0.42	0.09	0.54	0.54	0.07	0.10	0.20	0.26	0.28	0.28
v/c Ratio	0.05	0.22	0.08	0.52	0.20	0.44	0.60	0.16	0.19	0.92	0.05	0.00
Control Delay	55.2	25.3	0.2	64.1	16.9	4.3	75.8	49.6	4.5	68.9	29.1	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	0.0
Total Delay	55.2	25.3	0.2	64.1	16.9	4.3	75.8	49.6	4.5	68.9	29.1	0.0
LOS	E	C	A	E	B	A	E	D	A	E	C	A
Approach Delay		21.6			14.9			41.9			64.4	
Approach LOS		C			B			D			E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 30.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 53.3%  
 ICU Level of Service A  
 Analysis Period (min) 15

























Splits and Phases: 12: Roberts Rd. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

IY (2028) Sunday Morning Without Project

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	307	58	79	355	435	64	49	68	387	45	2
Future Volume (veh/h)	4	307	58	79	355	435	64	49	68	387	45	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	334	63	86	386	473	70	53	74	421	49	2
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	9	1610	718	110	1810	807	90	296	230	449	1013	452
Arrive On Green	0.01	0.45	0.45	0.10	0.85	0.85	0.05	0.08	0.08	0.25	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	4	334	63	86	386	473	70	53	74	421	49	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.3	6.8	2.7	5.7	2.4	10.7	4.7	1.7	5.0	27.8	1.2	0.1
Cycle Q Clear(g_c), s	0.3	6.8	2.7	5.7	2.4	10.7	4.7	1.7	5.0	27.8	1.2	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	9	1610	718	110	1810	807	90	296	230	449	1013	452
V/C Ratio(X)	0.43	0.21	0.09	0.79	0.21	0.59	0.78	0.18	0.32	0.94	0.05	0.00
Avail Cap(c_a), veh/h	82	1610	718	379	1810	807	128	755	434	490	1478	659
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	19.8	18.7	53.1	4.6	5.2	56.3	51.2	46.0	43.9	31.1	30.7
Incr Delay (d2), s/veh	28.7	0.3	0.2	10.1	0.2	2.7	17.8	0.3	0.8	24.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	1.1	2.8	0.9	2.7	2.5	0.8	2.0	15.3	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.2	20.1	18.9	63.2	4.8	7.9	74.1	51.5	46.8	68.8	31.1	30.7
LnGrp LOS	F	C	B	E	A	A	E	D	D	E	C	C
Approach Vol, veh/h		401			945			197			472	
Approach Delay, s/veh		20.6			11.6			57.8			64.8	
Approach LOS		C			B			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	58.9	10.5	38.7	5.1	65.6	34.8	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	18.0	8.6	49.9	5.5	38.0	33.0	25.5				
Max Q Clear Time (g_c+I1), s	7.7	8.8	6.7	3.2	2.3	12.7	29.8	7.0				
Green Ext Time (p_c), s	0.2	1.6	0.0	0.3	0.0	4.6	0.5	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				30.4								
HCM 6th LOS				C								

**APPENDIX 6.7: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT  
SCENARIO 1 CONDITIONS INTERSECTION ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Timings  
1: Singleton Rd. & I-10 EB Ramps

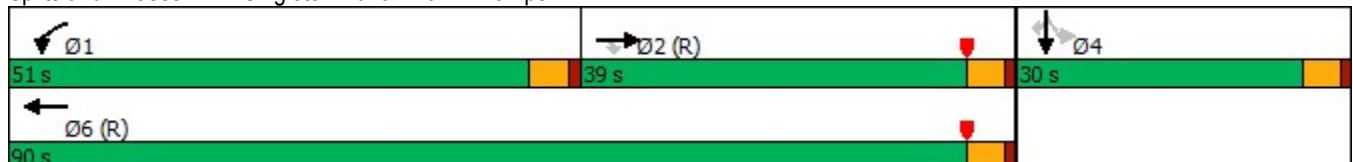
IY (2028) w/ Scenario 1 Project AM Peak Hour

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↑	↑	↔	↑
Traffic Volume (vph)	660	334	463	447	0	298
Future Volume (vph)	660	334	463	447	0	298
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	39.0	39.0	51.0	90.0	30.0	30.0
Total Split (%)	32.5%	32.5%	42.5%	75.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	41.6	41.6	39.4	85.5	25.5	25.5
Actuated g/C Ratio	0.35	0.35	0.33	0.71	0.21	0.21
v/c Ratio	0.59	0.54	0.88	0.37	0.70	0.50
Control Delay	39.6	24.2	62.0	9.0	45.2	8.3
Queue Delay	0.0	0.0	0.1	0.3	0.0	0.0
Total Delay	39.6	24.2	62.1	9.3	45.2	8.3
LOS	D	C	E	A	D	A
Approach Delay	34.5			36.2	27.5	
Approach LOS	C			D	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), 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: 33.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 76.1%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

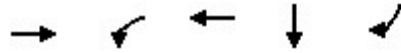


HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

IY (2028) w/ Scenario 1 Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑						↕	↗
Traffic Volume (veh/h)	0	660	334	463	447	0	0	0	0	199	0	298
Future Volume (veh/h)	0	660	334	463	447	0	0	0	0	199	0	298
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	725	367	509	491	0				219	81	273
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1331	594	535	1333	0				280	104	337
Arrive On Green	0.00	0.37	0.37	0.50	1.00	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	3647	1585	1781	1870	0				1317	487	1585
Grp Volume(v), veh/h	0	725	367	509	491	0				300	0	273
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1804	0	1585
Q Serve(g_s), s	0.0	19.2	22.6	32.7	0.0	0.0				18.8	0.0	19.7
Cycle Q Clear(g_c), s	0.0	19.2	22.6	32.7	0.0	0.0				18.8	0.0	19.7
Prop In Lane	0.00		1.00	1.00		0.00				0.73		1.00
Lane Grp Cap(c), veh/h	0	1331	594	535	1333	0				383	0	337
V/C Ratio(X)	0.00	0.54	0.62	0.95	0.37	0.00				0.78	0.00	0.81
Avail Cap(c_a), veh/h	0	1331	594	690	1333	0				383	0	337
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.66	0.66	0.62	0.62	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.5	30.5	29.0	0.0	0.0				44.6	0.0	45.0
Incr Delay (d2), s/veh	0.0	1.1	3.2	14.4	0.5	0.0				14.7	0.0	18.7
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	8.4	9.1	13.6	0.2	0.0				10.0	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.6	33.7	43.4	0.5	0.0				59.3	0.0	63.7
LnGrp LOS	A	C	C	D	A	A				E	A	E
Approach Vol, veh/h		1092			1000						573	
Approach Delay, s/veh		31.6			22.3						61.4	
Approach LOS		C			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	40.6	49.4		30.0		90.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	46.5	34.5		25.5		85.5						
Max Q Clear Time (g_c+I1), s	34.7	24.6		21.7		2.0						
Green Ext Time (p_c), s	1.4	4.5		1.1		3.6						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

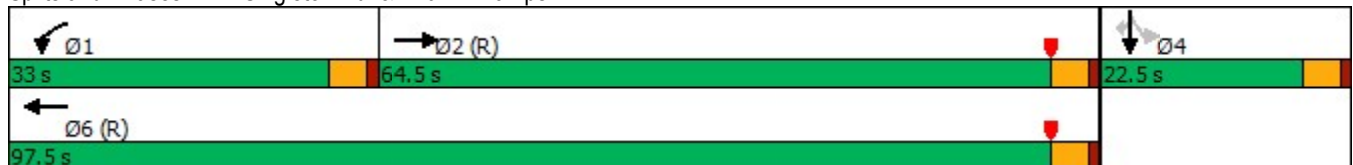


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	660	463	447	0	298
Future Volume (vph)	660	463	447	0	298
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	64.5	33.0	97.5	22.5	22.5
Total Split (%)	53.8%	27.5%	81.3%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	60.0	28.5	93.0	18.0	18.0
Actuated g/C Ratio	0.50	0.24	0.78	0.15	0.15
v/c Ratio	1.21	1.21	0.34	0.78	0.63
Control Delay	132.4	136.7	5.4	69.4	11.1
Queue Delay	0.0	0.0	0.6	0.0	0.0
Total Delay	132.4	136.7	6.0	69.4	11.1
LOS	F	F	A	E	B
Approach Delay	132.4		72.6	34.5	
Approach LOS	F		E	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 89.5  
 Intersection LOS: F  
 Intersection Capacity Utilization 127.6%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻	↻
Traffic Volume (veh/h)	0	660	334	463	447	0	0	0	0	199	0	298
Future Volume (veh/h)	0	660	334	463	447	0	0	0	0	199	0	298
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	725	367	509	491	0				219	0	327
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	585	296	423	1450	0				267	0	238
Arrive On Green	0.00	0.50	0.50	0.40	1.00	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	1171	593	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1092	509	491	0				219	0	327
Grp Sat Flow(s),veh/h/ln	0	0	1764	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	60.0	28.5	0.0	0.0				14.3	0.0	18.0
Cycle Q Clear(g_c), s	0.0	0.0	60.0	28.5	0.0	0.0				14.3	0.0	18.0
Prop In Lane	0.00		0.34	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	882	423	1450	0				267	0	238
V/C Ratio(X)	0.00	0.00	1.24	1.20	0.34	0.00				0.82	0.00	1.38
Avail Cap(c_a), veh/h	0	0	882	423	1450	0				267	0	238
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	30.0	36.2	0.0	0.0				49.4	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.0	117.0	93.6	0.1	0.0				23.7	0.0	193.2
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	0.0	53.0	21.7	0.0	0.0				8.1	0.0	19.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	147.0	129.8	0.1	0.0				73.1	0.0	244.2
LnGrp LOS	A	A	F	F	A	A				E	A	F
Approach Vol, veh/h		1092			1000						546	
Approach Delay, s/veh		147.0			66.1						175.6	
Approach LOS		F			E						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	33.0	64.5		22.5		97.5						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	28.5	60.0		18.0		93.0						
Max Q Clear Time (g_c+I1), s	30.5	62.0		20.0		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		3.6						

Intersection Summary

HCM 6th Ctrl Delay	122.2
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) w/ Scenario 1 Project AM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	374	485	676	469	235	0
Future Volume (vph)	374	485	676	469	235	0
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	5	2	6			8
Permitted Phases				6	8	
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	90.0	66.0	66.0	30.0	30.0
Total Split (%)	20.0%	75.0%	55.0%	55.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	18.0	89.2	66.7	66.7	21.8	21.8
Actuated g/C Ratio	0.15	0.74	0.56	0.56	0.18	0.18
v/c Ratio	0.78	0.38	0.70	0.46	0.79	0.51
Control Delay	51.4	11.1	15.8	3.0	64.0	3.5
Queue Delay	0.0	0.2	0.2	0.1	0.0	0.0
Total Delay	51.4	11.4	16.0	3.1	64.0	3.5
LOS	D	B	B	A	E	A
Approach Delay		28.8	10.7			30.1
Approach LOS		C	B			C

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 20.9  
 Intersection Capacity Utilization 76.1%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps













HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) w/ Scenario 1 Project AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	485	0	0	676	469	235	0	300	0	0	0
Future Volume (veh/h)	374	485	0	0	676	469	235	0	300	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
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	402	522	0	0	727	504	253	0	323			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	459	1333	0	0	1014	859	379	0	337			
Arrive On Green	0.27	1.00	0.00	0.00	1.00	1.00	0.21	0.00	0.21			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	402	522	0	0	727	504	253	0	323			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	13.4	0.0	0.0	0.0	0.0	0.0	15.6	0.0	24.2			
Cycle Q Clear(g_c), s	13.4	0.0	0.0	0.0	0.0	0.0	15.6	0.0	24.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	459	1333	0	0	1014	859	379	0	337			
V/C Ratio(X)	0.87	0.39	0.00	0.00	0.72	0.59	0.67	0.00	0.96			
Avail Cap(c_a), veh/h	562	1333	0	0	1014	859	379	0	337			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.78	0.78	0.00	0.00	0.74	0.74	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.1	0.0	0.0	0.0	0.0	0.0	43.4	0.0	46.7			
Incr Delay (d2), s/veh	10.1	0.7	0.0	0.0	3.2	2.2	4.5	0.0	38.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.6	0.3	0.0	0.0	0.9	0.5	7.4	0.0	13.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	0.7	0.0	0.0	3.2	2.2	47.8	0.0	84.9			
LnGrp LOS	D	A	A	A	A	A	D	A	F			
Approach Vol, veh/h		924			1231			576				
Approach Delay, s/veh		23.5			2.8			68.6				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		90.0			20.5	69.5		30.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		85.5			19.5	61.5		25.5				
Max Q Clear Time (g_c+I1), s		2.0			15.4	2.0		26.2				
Green Ext Time (p_c), s		3.9			0.6	9.3		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					23.7							
HCM 6th LOS					C							

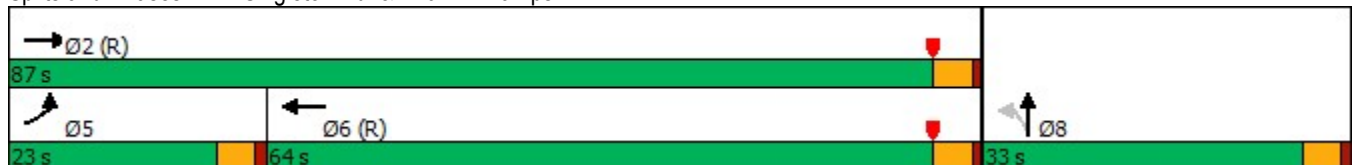
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	374	485	676	0
Future Volume (vph)	374	485	676	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	23.0	87.0	64.0	33.0
Total Split (%)	19.2%	72.5%	53.3%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	18.5	82.5	59.5	28.5
Actuated g/C Ratio	0.15	0.69	0.50	0.24
v/c Ratio	1.48	0.41	1.38	1.30
Control Delay	254.0	11.3	204.5	186.4
Queue Delay	0.0	0.6	0.0	0.0
Total Delay	254.0	11.9	204.5	186.4
LOS	F	B	F	F
Approach Delay		117.2	204.5	186.4
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.48  
 Intersection Signal Delay: 171.2  
 Intersection Capacity Utilization 127.6%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	485	0	0	676	469	235	0	300	0	0	0
Future Volume (veh/h)	374	485	0	0	676	469	235	0	300	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	402	522	0	0	727	504	253	0	323			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	275	1286	0	0	510	354	174	0	222			
Arrive On Green	0.31	1.00	0.00	0.00	0.50	0.50	0.24	0.00	0.24			
Sat Flow, veh/h	1781	1870	0	0	1029	713	732	0	934			
Grp Volume(v), veh/h	402	522	0	0	0	1231	576	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1742	1666	0	0			
Q Serve(g_s), s	18.5	0.0	0.0	0.0	0.0	59.5	28.5	0.0	0.0			
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	0.0	59.5	28.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.41	0.44		0.56			
Lane Grp Cap(c), veh/h	275	1286	0	0	0	864	396	0	0			
V/C Ratio(X)	1.46	0.41	0.00	0.00	0.00	1.43	1.46	0.00	0.00			
Avail Cap(c_a), veh/h	275	1286	0	0	0	864	396	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	0.0	0.0	0.0	0.0	30.3	45.8	0.0	0.0			
Incr Delay (d2), s/veh	210.6	0.1	0.0	0.0	0.0	198.1	218.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	22.9	0.0	0.0	0.0	0.0	71.4	35.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	252.1	0.1	0.0	0.0	0.0	228.3	264.6	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		924			1231			576				
Approach Delay, s/veh		109.7			228.3			264.6				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.0			23.0	64.0		33.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		82.5			18.5	59.5		28.5				
Max Q Clear Time (g_c+I1), s		2.0			20.5	61.5		30.5				
Green Ext Time (p_c), s		3.9			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					195.9							
HCM 6th LOS					F							

Timings

IY (2028) w/ Scenario 1 Project AM Peak Hour

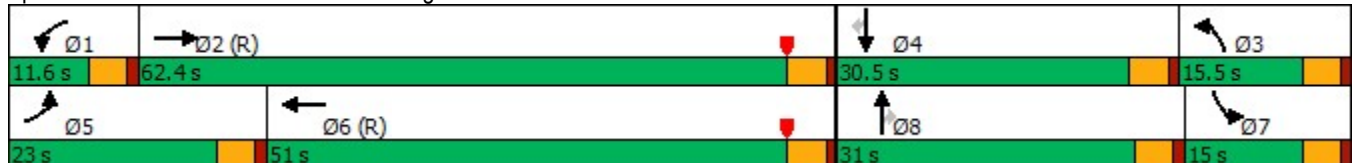
3: Calimesa Bl. & Singleton Rd.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	171	462	38	807	156	267	154	75	31	182
Future Volume (vph)	171	462	38	807	156	267	154	75	31	182
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	23.0	62.4	11.6	51.0	15.5	31.0	31.0	15.0	30.5	30.5
Total Split (%)	19.2%	52.0%	9.7%	42.5%	12.9%	25.8%	25.8%	12.5%	25.4%	25.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	16.3	65.8	7.0	54.5	19.6	23.9	23.9	9.5	11.6	11.6
Actuated g/C Ratio	0.14	0.55	0.06	0.45	0.16	0.20	0.20	0.08	0.10	0.10
v/c Ratio	0.77	0.35	0.40	0.69	0.30	0.77	0.37	0.58	0.18	0.59
Control Delay	59.7	16.6	73.0	24.6	38.2	64.8	15.1	69.8	51.0	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	16.6	73.0	24.6	38.2	64.8	15.1	69.8	51.0	14.5
LOS	E	B	E	C	D	E	B	E	D	B
Approach Delay		25.9		26.3		44.3			32.8	
Approach LOS		C		C		D			C	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 30.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 71.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

IY (2028) w/ Scenario 1 Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	462	154	38	807	202	156	267	154	75	31	182
Future Volume (veh/h)	171	462	154	38	807	202	156	267	154	75	31	182
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	184	497	166	41	868	217	168	287	166	81	33	196
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	1532	509	55	1403	351	451	330	280	103	194	164
Arrive On Green	0.24	1.00	1.00	0.06	1.00	1.00	0.13	0.18	0.18	0.06	0.10	0.10
Sat Flow, veh/h	1781	2620	870	1781	2817	704	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	184	336	327	41	547	538	168	287	166	81	33	196
Grp Sat Flow(s),veh/h/ln	1781	1777	1714	1781	1777	1744	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.9	0.0	0.0	2.7	0.3	0.3	5.3	17.9	10.1	5.4	1.9	9.8
Cycle Q Clear(g_c), s	11.9	0.0	0.0	2.7	0.3	0.3	5.3	17.9	10.1	5.4	1.9	9.8
Prop In Lane	1.00		0.51	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	1039	1002	55	885	869	451	330	280	103	194	164
V/C Ratio(X)	0.88	0.32	0.33	0.74	0.62	0.62	0.37	0.87	0.59	0.79	0.17	1.19
Avail Cap(c_a), veh/h	275	1039	1002	105	885	869	451	413	350	156	405	343
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	0.0	0.0	55.8	0.1	0.1	47.7	48.1	34.5	55.8	49.1	33.1
Incr Delay (d2), s/veh	20.3	0.8	0.8	17.5	3.2	3.3	0.5	15.1	2.0	14.0	0.4	104.9
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	5.8	0.2	0.2	1.5	0.8	0.8	2.3	9.7	4.1	2.8	0.9	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	0.8	0.8	73.3	3.3	3.4	48.2	63.2	36.5	69.8	49.5	138.1
LnGrp LOS	E	A	A	E	A	A	D	E	D	E	D	F
Approach Vol, veh/h		847			1126			621			310	
Approach Delay, s/veh		14.8			5.9			52.0			110.8	
Approach LOS		B			A			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	74.7	20.2	16.9	18.6	64.3	11.4	25.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.1	57.9	11.0	26.0	18.5	46.5	10.5	26.5				
Max Q Clear Time (g_c+I1), s	4.7	2.0	7.3	11.8	13.9	2.3	7.4	19.9				
Green Ext Time (p_c), s	0.0	4.9	0.2	0.7	0.2	9.5	0.0	1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			29.6									
HCM 6th LOS			C									

Timings

IY (2028) w/ Scenario 1 Project AM Peak Hour

4: Beckwith Av. & Singleton Rd.

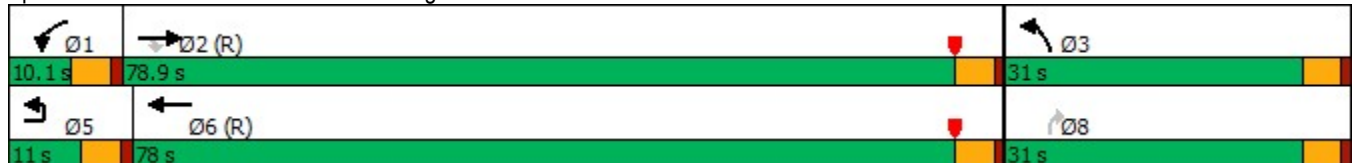


Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶	↷	↷	↶	↷	↶	↷
Traffic Volume (vph)	30	566	81	20	805	224	52
Future Volume (vph)	30	566	81	20	805	224	52
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	3	
Permitted Phases			2				8
Detector Phase	5	2	2	1	6	3	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	11.0	78.9	78.9	10.1	78.0	31.0	31.0
Total Split (%)	9.2%	65.8%	65.8%	8.4%	65.0%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max
Act Effct Green (s)	6.3	80.5	80.5	5.6	77.9	26.5	26.5
Actuated g/C Ratio	0.05	0.67	0.67	0.05	0.65	0.22	0.22
v/c Ratio	0.36	0.46	0.08	0.24	0.68	0.59	0.14
Control Delay	73.0	10.1	1.6	62.6	17.9	48.9	10.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	10.1	1.6	62.6	17.9	48.9	10.9
LOS	E	B	A	E	B	D	B
Approach Delay		12.1			18.9	41.7	
Approach LOS		B			B	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 19.9  
 Intersection Capacity Utilization 62.3%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

IY (2028) w/ Scenario 1 Project AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	30	566	81	20	805	224	52
Future Volume (veh/h)	30	566	81	20	805	224	52
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		578	83	20	821	229	53
Peak Hour Factor		0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1347	1141	36	1455	262	233
Arrive On Green		1.00	1.00	0.02	0.78	0.15	0.15
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		578	83	20	821	229	53
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		0.0	0.0	1.3	20.9	15.1	3.5
Cycle Q Clear(g_c), s		0.0	0.0	1.3	20.9	15.1	3.5
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1347	1141	36	1455	262	233
V/C Ratio(X)		0.43	0.07	0.55	0.56	0.87	0.23
Avail Cap(c_a), veh/h		1347	1141	83	1455	393	350
HCM Platoon Ratio		2.00	2.00	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		0.0	0.0	58.2	5.3	50.1	45.1
Incr Delay (d2), s/veh		1.0	0.1	12.6	1.6	13.2	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.4	0.0	0.7	7.3	7.6	1.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		1.0	0.1	70.8	6.9	63.3	45.6
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		661			841	282	
Approach Delay, s/veh		0.9			8.4	60.0	
Approach LOS		A			A	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	6.9	90.9			97.8	22.2	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	5.6	74.4			73.5	26.5	
Max Q Clear Time (g_c+I1), s	3.3	2.0			22.9	17.1	
Green Ext Time (p_c), s	0.0	4.8			7.8	0.6	
<b>Intersection Summary</b>							
HCM 6th Ctrl Delay			13.8				
HCM 6th LOS			B				
<b>Notes</b>							
User approved ignoring U-Turning movement.							



Timings  
6: Calimesa Bl. & 5th St.

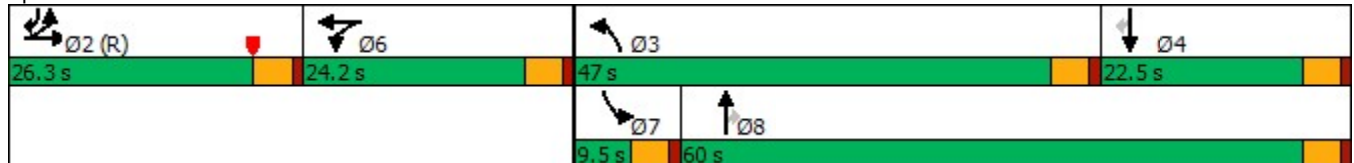
IY (2028) w/ Scenario 1 Project AM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	248	289	35	450	1009	530	213	25	172	452
Future Volume (vph)	248	289	35	450	1009	530	213	25	172	452
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	26.3	26.3	24.2	24.2	47.0	60.0	60.0	9.5	22.5	26.3
Total Split (%)	21.9%	21.9%	20.2%	20.2%	39.2%	50.0%	50.0%	7.9%	18.8%	21.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	21.8	21.8	19.7	19.7	42.5	59.3	59.3	5.0	18.0	44.3
Actuated g/C Ratio	0.18	0.18	0.16	0.16	0.35	0.49	0.49	0.04	0.15	0.37
v/c Ratio	0.87	0.82	0.14	0.96	0.98	0.68	0.30	0.40	0.72	0.83
Control Delay	76.3	56.5	44.5	77.9	52.2	31.0	14.7	72.0	64.4	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
Total Delay	76.3	56.5	44.5	77.9	52.2	32.4	14.7	72.0	64.4	40.3
LOS	E	E	D	E	D	C	B	E	E	D
Approach Delay		63.1		75.6		41.6			47.9	
Approach LOS		E		E		D			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 51.5  
 Intersection Capacity Utilization 81.1%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service D























Splits and Phases: 6: Calimesa Bl. & 5th St.





HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

IY (2028) w/ Scenario 1 Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	289	109	35	450	21	1009	530	213	25	172	452
Future Volume (veh/h)	248	289	109	35	450	21	1009	530	213	25	172	452
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	234	422	69	41	529	13	1187	624	127	29	202	267
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	572	93	292	580	14	1224	895	758	46	281	526
Arrive On Green	0.18	0.18	0.18	0.16	0.16	0.16	0.35	0.48	0.48	0.03	0.15	0.15
Sat Flow, veh/h	1781	3139	510	1781	3545	87	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	234	250	241	41	265	277	1187	624	127	29	202	267
Grp Sat Flow(s),veh/h/ln	1781	1870	1779	1781	1777	1855	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	14.8	15.2	15.4	2.4	17.6	17.6	40.5	31.3	5.5	1.9	12.3	16.2
Cycle Q Clear(g_c), s	14.8	15.2	15.4	2.4	17.6	17.6	40.5	31.3	5.5	1.9	12.3	16.2
Prop In Lane	1.00		0.29	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	341	324	292	291	304	1224	895	758	46	281	526
V/C Ratio(X)	0.72	0.73	0.74	0.14	0.91	0.91	0.97	0.70	0.17	0.63	0.72	0.51
Avail Cap(c_a), veh/h	324	341	324	292	292	304	1224	895	758	74	281	526
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	46.2	46.3	46.4	42.9	49.3	49.3	38.1	24.5	17.7	57.9	48.6	32.2
Incr Delay (d2), s/veh	13.0	13.2	14.3	0.2	30.6	30.0	18.9	4.5	0.5	13.4	14.8	3.5
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	7.7	8.3	8.1	1.1	10.3	10.7	19.8	14.5	2.1	1.0	6.9	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	59.5	60.8	43.2	79.9	79.3	57.0	29.0	18.2	71.2	63.4	35.7
LnGrp LOS	E	E	E	D	E	E	E	C	B	E	E	D
Approach Vol, veh/h		725			583			1938			498	
Approach Delay, s/veh		59.8			77.1			45.4			49.0	
Approach LOS		E			E			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.3	47.0	22.5		24.2	7.6	61.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.8	42.5	18.0		19.7	5.0	55.5				
Max Q Clear Time (g_c+I1), s		17.4	42.5	18.2		19.6	3.9	33.3				
Green Ext Time (p_c), s		1.6	0.0	0.0		0.0	0.0	4.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				53.6								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
7: Roberts Rd. & Cherry Valley Bl.

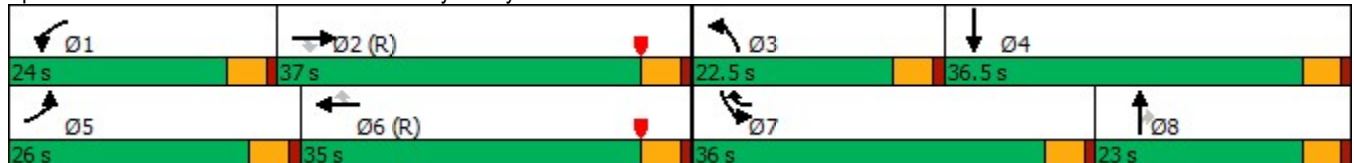
IY (2028) w/ Scenario 1 Project AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	340	493	23	135	437	375	12	25	128	534	23
Future Volume (vph)	340	493	23	135	437	375	12	25	128	534	23
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	37.0	37.0	24.0	35.0	36.0	22.5	23.0	23.0	36.0	36.5
Total Split (%)	21.7%	30.8%	30.8%	20.0%	29.2%	30.0%	18.8%	19.2%	19.2%	30.0%	30.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	18.0	37.0	37.0	15.0	34.0	70.0	18.0	18.5	18.5	31.5	32.0
Actuated g/C Ratio	0.15	0.31	0.31	0.12	0.28	0.58	0.15	0.15	0.15	0.26	0.27
v/c Ratio	0.73	0.50	0.04	0.67	0.48	0.39	0.05	0.09	0.39	0.65	0.51
Control Delay	57.1	36.5	0.1	62.6	37.3	11.6	44.4	44.6	10.6	43.4	8.3
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	57.1	36.5	0.1	62.6	37.3	11.6	44.4	44.6	10.6	43.4	8.3
LOS	E	D	A	E	D	B	D	D	B	D	A
Approach Delay		43.8			30.7			18.1			30.6
Approach LOS		D			C			B			C

Intersection Summary





























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 33.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 54.9%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



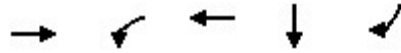
HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

IY (2028) w/ Scenario 1 Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 					 		
Traffic Volume (veh/h)	340	493	23	135	437	375	12	25	128	534	23	283
Future Volume (veh/h)	340	493	23	135	437	375	12	25	128	534	23	283
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	374	542	25	148	480	412	13	27	141	587	25	311
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	445	1187	529	177	1082	899	267	288	244	907	32	396
Arrive On Green	0.13	0.33	0.33	0.10	0.30	0.30	0.15	0.15	0.15	0.26	0.27	0.27
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	119	1484
Grp Volume(v), veh/h	374	542	25	148	480	412	13	27	141	587	0	336
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1603
Q Serve(g_s), s	12.7	14.4	1.3	9.8	13.0	18.2	0.7	1.5	9.9	18.1	0.0	23.3
Cycle Q Clear(g_c), s	12.7	14.4	1.3	9.8	13.0	18.2	0.7	1.5	9.9	18.1	0.0	23.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	445	1187	529	177	1082	899	267	288	244	907	0	428
V/C Ratio(X)	0.84	0.46	0.05	0.84	0.44	0.46	0.05	0.09	0.58	0.65	0.00	0.79
Avail Cap(c_a), veh/h	619	1187	529	289	1082	899	267	288	244	907	0	428
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(l)	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	51.1	31.4	27.0	53.1	33.6	15.2	43.7	43.6	47.1	39.3	0.0	40.8
Incr Delay (d2), s/veh	7.3	1.3	0.2	10.7	1.3	1.7	0.3	0.6	9.6	3.6	0.0	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	6.3	0.5	4.9	5.8	6.8	0.4	0.7	4.6	8.1	0.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	32.7	27.2	63.7	34.9	16.9	44.0	44.2	56.7	42.9	0.0	54.4
LnGrp LOS	E	C	C	E	C	B	D	D	E	D	A	D
Approach Vol, veh/h		941			1040			181			923	
Approach Delay, s/veh		42.7			31.9			53.9			47.1	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	44.6	22.5	36.5	20.0	41.0	36.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.5	32.5	18.0	32.0	21.5	30.5	31.5	18.5				
Max Q Clear Time (g_c+I1), s	11.8	16.4	2.7	25.3	14.7	20.2	20.1	11.9				
Green Ext Time (p_c), s	0.2	3.2	0.0	1.2	0.8	3.4	1.8	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			41.0									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 1 Project AM Peak Hour

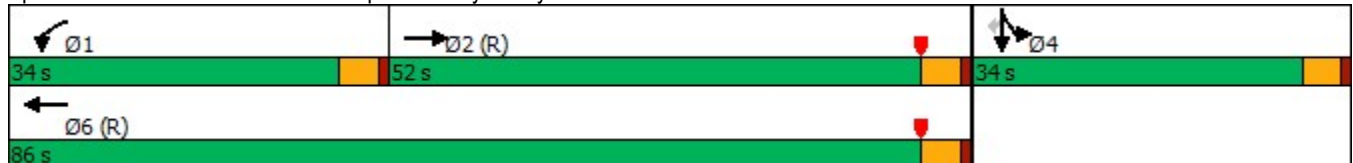


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↵	↑↑	↵	↵↵
Traffic Volume (vph)	953	362	500	0	446
Future Volume (vph)	953	362	500	0	446
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	52.0	34.0	86.0	34.0	34.0
Total Split (%)	43.3%	28.3%	71.7%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Min	Max	Max
Act Effct Green (s)	48.5	28.5	81.5	29.5	29.5
Actuated g/C Ratio	0.40	0.24	0.68	0.25	0.25
v/c Ratio	0.88	0.93	0.22	0.88	0.46
Control Delay	48.6	65.0	12.9	66.3	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	65.0	12.9	66.3	4.7
LOS	D	E	B	E	A
Approach Delay	48.6		34.7	32.1	
Approach LOS	D		C	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 107.7 (90%), 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: 39.7  
 Intersection Capacity Utilization 83.9%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.













HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 1 Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↖	↖↖
Traffic Volume (veh/h)	0	953	203	362	500	0	0	0	0	357	0	446
Future Volume (veh/h)	0	953	203	362	500	0	0	0	0	357	0	446
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	1025	218	389	538	0				384	0	480
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1203	255	408	2414	0				438	0	686
Arrive On Green	0.00	0.41	0.41	0.46	1.00	0.00				0.25	0.00	0.25
Sat Flow, veh/h	0	3011	619	1781	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	623	620	389	538	0				384	0	480
Grp Sat Flow(s),veh/h/ln	0	1777	1759	1781	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	38.1	38.4	25.2	0.0	0.0				24.9	0.0	18.8
Cycle Q Clear(g_c), s	0.0	38.1	38.4	25.2	0.0	0.0				24.9	0.0	18.8
Prop In Lane	0.00		0.35	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	733	725	408	2414	0				438	0	686
V/C Ratio(X)	0.00	0.85	0.85	0.95	0.22	0.00				0.88	0.00	0.70
Avail Cap(c_a), veh/h	0	733	725	438	2414	0				438	0	686
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.46	0.46	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.9	32.0	31.9	0.0	0.0				43.5	0.0	41.2
Incr Delay (d2), s/veh	0.0	11.9	12.3	18.2	0.1	0.0				21.2	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.2	18.3	10.2	0.0	0.0				13.5	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	43.8	44.2	50.0	0.1	0.0				64.7	0.0	47.1
LnGrp LOS	A	D	D	D	A	A				E	A	D
Approach Vol, veh/h		1243			927						864	
Approach Delay, s/veh		44.0			21.0						54.9	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	54.0		34.0		86.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.5	47.5		29.5		81.5						
Max Q Clear Time (g_c+I1), s	27.2	40.4		26.9		2.0						
Green Ext Time (p_c), s	0.3	4.3		1.2		4.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			40.1									
HCM 6th LOS			D									

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

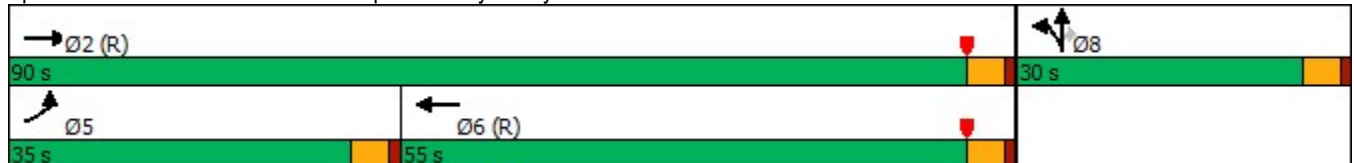
IY (2028) w/ Scenario 1 Project AM Peak Hour

					
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	686	624	672	11	424
Future Volume (vph)	686	624	672	11	424
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	30.0	30.0
Total Split (s)	35.0	90.0	55.0	30.0	30.0
Total Split (%)	29.2%	75.0%	45.8%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Min	C-Max	None	None
Act Effct Green (s)	29.4	90.5	56.6	20.5	20.5
Actuated g/C Ratio	0.24	0.75	0.47	0.17	0.17
v/c Ratio	0.88	0.48	0.83	0.71	0.78
Control Delay	62.7	5.9	20.0	59.3	23.4
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	62.7	6.1	20.1	59.3	23.4
LOS	E	A	C	E	C
Approach Delay		35.7	20.1	34.9	
Approach LOS		D	C	C	

Intersection Summary




















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 29.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 83.9%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

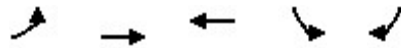
IY (2028) w/ Scenario 1 Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 							
Traffic Volume (veh/h)	686	624	0	0	672	613	189	11	424	0	0	0
Future Volume (veh/h)	686	624	0	0	672	613	189	11	424	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	738	671	0	0	723	659	203	12	456			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	797	1333	0	0	792	702	358	21	337			
Arrive On Green	0.39	1.00	0.00	0.00	0.89	0.89	0.21	0.21	0.21			
Sat Flow, veh/h	3456	1870	0	0	1875	1581	1686	100	1585			
Grp Volume(v), veh/h	738	671	0	0	721	661	215	0	456			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1586	1786	0	1585			
Q Serve(g_s), s	24.5	0.0	0.0	0.0	28.8	33.5	12.9	0.0	25.5			
Cycle Q Clear(g_c), s	24.5	0.0	0.0	0.0	28.8	33.5	12.9	0.0	25.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	797	1333	0	0	789	705	380	0	337			
V/C Ratio(X)	0.93	0.50	0.00	0.00	0.91	0.94	0.57	0.00	1.35			
Avail Cap(c_a), veh/h	878	1333	0	0	789	705	380	0	337			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.35	0.35	0.00	0.00	0.46	0.46	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.9	0.0	0.0	0.0	5.3	5.6	42.3	0.0	47.3			
Incr Delay (d2), s/veh	6.2	0.5	0.0	0.0	9.0	12.4	2.0	0.0	177.6			
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	9.5	0.2	0.0	0.0	4.4	4.6	5.9	0.0	26.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	0.5	0.0	0.0	14.3	18.0	44.3	0.0	224.8			
LnGrp LOS	D	A	A	A	B	B	D	A	F			
Approach Vol, veh/h		1409			1382			671				
Approach Delay, s/veh		22.3			16.0			167.0				
Approach LOS		C			B			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		90.0			32.2	57.8		30.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		85.5			30.5	50.5		25.5				
Max Q Clear Time (g_c+I1), s		2.0			26.5	35.5		27.5				
Green Ext Time (p_c), s		5.3			1.2	8.4		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					47.8							
HCM 6th LOS					D							



Timings  
10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 1 Project AM Peak Hour

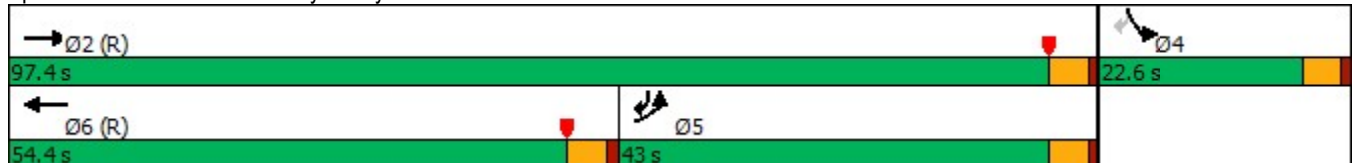


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑	↕	↘	↗
Traffic Volume (vph)	426	623	994	72	292
Future Volume (vph)	426	623	994	72	292
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	43.0	97.4	54.4	22.6	43.0
Total Split (%)	35.8%	81.2%	45.3%	18.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	38.5	92.9	49.9	18.1	61.1
Actuated g/C Ratio	0.32	0.77	0.42	0.15	0.51
v/c Ratio	0.87	0.50	0.92	0.32	0.42
Control Delay	52.7	5.8	44.7	52.5	20.8
Queue Delay	0.0	0.4	0.0	0.0	0.0
Total Delay	52.7	6.1	44.7	52.5	20.8
LOS	D	A	D	D	C
Approach Delay		25.0	44.7	27.1	
Approach LOS		C	D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 34.2  
 Intersection Capacity Utilization 71.6%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.





HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 1 Project AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	426	623	994	160	72	292
Future Volume (veh/h)	426	623	994	160	72	292
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	495	724	1156	186	84	340
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	571	1448	1275	204	269	748
Arrive On Green	0.64	1.00	0.42	0.42	0.15	0.15
Sat Flow, veh/h	1781	1870	3161	492	1781	1585
Grp Volume(v), veh/h	495	724	668	674	84	340
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1782	1781	1585
Q Serve(g_s), s	26.9	0.0	42.2	42.7	5.0	0.0
Cycle Q Clear(g_c), s	26.9	0.0	42.2	42.7	5.0	0.0
Prop In Lane	1.00			0.28	1.00	1.00
Lane Grp Cap(c), veh/h	571	1448	739	741	269	748
V/C Ratio(X)	0.87	0.50	0.90	0.91	0.31	0.45
Avail Cap(c_a), veh/h	571	1448	739	741	269	748
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.77	0.77	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	32.8	32.9	45.4	21.3
Incr Delay (d2), s/veh	10.6	1.0	16.6	17.2	3.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.4	20.9	21.3	2.4	11.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.0	1.0	49.4	50.2	48.4	23.3
LnGrp LOS	C	A	D	D	D	C
Approach Vol, veh/h		1219	1342		424	
Approach Delay, s/veh		12.7	49.8		28.3	
Approach LOS		B	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	43.0	54.4
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	38.5	49.9
Max Q Clear Time (g_c+I1), s		2.0		7.0	28.9	44.7
Green Ext Time (p_c), s		6.0		1.1	1.2	3.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			31.6			
HCM 6th LOS			C			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 1 Project AM Peak Hour



Lane Group	EBL	NBT	SBT
Lane Configurations	↔	↑↑	↑
Traffic Volume (vph)	343	1343	253
Future Volume (vph)	343	1343	253
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	24.0	36.0	36.0
Total Split (%)	40.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	16.8	34.2	34.2
Actuated g/C Ratio	0.28	0.57	0.57
v/c Ratio	0.77	0.74	0.26
Control Delay	30.8	13.3	5.5
Queue Delay	0.2	0.1	0.0
Total Delay	31.0	13.4	5.5
LOS	C	B	A
Approach Delay	31.0	13.4	5.5
Approach LOS	C	B	A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 15.5  
 Intersection Capacity Utilization 63.7%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 1 Project AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑	
Traffic Volume (veh/h)	343	2	0	1343	253	0
Future Volume (veh/h)	343	2	0	1343	253	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	381	2	0	1492	281	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	440	2	0	2135	1124	0
Arrive On Green	0.25	0.25	0.00	0.60	0.60	0.00
Sat Flow, veh/h	1766	9	0	3741	1870	0
Grp Volume(v), veh/h	384	0	0	1492	281	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1777	1870	0
Q Serve(g_s), s	12.4	0.0	0.0	17.3	4.2	0.0
Cycle Q Clear(g_c), s	12.4	0.0	0.0	17.3	4.2	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	444	0	0	2135	1124	0
V/C Ratio(X)	0.87	0.00	0.00	0.70	0.25	0.00
Avail Cap(c_a), veh/h	579	0	0	2135	1124	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.6	0.0	0.0	8.2	5.6	0.0
Incr Delay (d2), s/veh	10.5	0.0	0.0	1.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	0.0	5.1	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.0	0.0	0.0	10.2	6.2	0.0
LnGrp LOS	C	A	A	B	A	A
Approach Vol, veh/h	384			1492	281	
Approach Delay, s/veh	32.0			10.2	6.2	
Approach LOS	C			B	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		40.5		19.5		40.5
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		31.5		19.5		31.5
Max Q Clear Time (g_c+I1), s		19.3		14.4		6.2
Green Ext Time (p_c), s		8.0		0.6		1.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			13.5			
HCM 6th LOS			B			

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

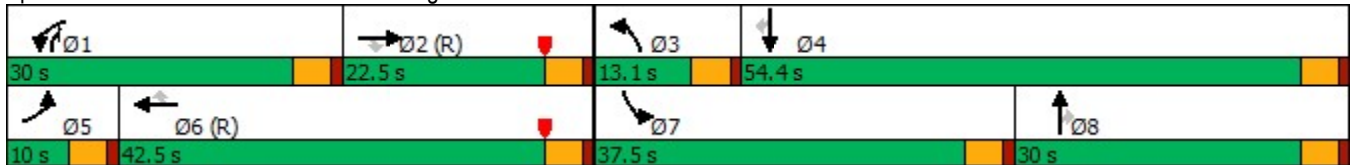
IY (2028) w/ Scenario 1 Project AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	391	88	166	291	211	41	41	106	483	61	9
Future Volume (vph)	17	391	88	166	291	211	41	41	106	483	61	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	10.0	22.5	22.5	30.0	42.5	42.5	13.1	30.0	30.0	37.5	54.4	54.4
Total Split (%)	8.3%	18.8%	18.8%	25.0%	35.4%	35.4%	10.9%	25.0%	25.0%	31.3%	45.3%	45.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	6.8	42.8	42.8	17.5	59.8	59.8	7.7	11.6	30.7	33.0	36.0	36.0
Actuated g/C Ratio	0.06	0.36	0.36	0.15	0.50	0.50	0.06	0.10	0.26	0.28	0.30	0.30
v/c Ratio	0.18	0.34	0.14	0.70	0.18	0.25	0.40	0.13	0.24	1.08	0.06	0.02
Control Delay	57.5	31.8	0.4	56.3	19.9	4.9	64.2	49.2	9.2	105.8	29.2	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	0.0
Total Delay	57.5	31.8	0.4	56.3	19.9	4.9	64.2	49.2	9.2	105.8	29.2	0.1
LOS	E	C	A	E	B	A	E	D	A	F	C	A
Approach Delay		27.1			24.2			30.0			95.6	
Approach LOS		C			C			C			F	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 46.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 64.7%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

IY (2028) w/ Scenario 1 Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	391	88	166	291	211	41	41	106	483	61	9
Future Volume (veh/h)	17	391	88	166	291	211	41	41	106	483	61	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	425	96	180	316	229	45	45	115	525	66	10
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	33	1331	594	209	1680	749	58	296	318	490	1158	516
Arrive On Green	0.02	0.37	0.37	0.20	0.79	0.79	0.03	0.08	0.08	0.28	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	18	425	96	180	316	229	45	45	115	525	66	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.2	10.2	4.8	11.7	2.6	4.8	3.0	1.4	7.5	33.0	1.5	0.5
Cycle Q Clear(g_c), s	1.2	10.2	4.8	11.7	2.6	4.8	3.0	1.4	7.5	33.0	1.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	1331	594	209	1680	749	58	296	318	490	1158	516
V/C Ratio(X)	0.54	0.32	0.16	0.86	0.19	0.31	0.78	0.15	0.36	1.07	0.06	0.02
Avail Cap(c_a), veh/h	82	1331	594	379	1680	749	128	755	523	490	1478	659
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	26.7	25.0	47.3	6.9	7.2	57.6	51.1	41.3	43.5	27.8	27.4
Incr Delay (d2), s/veh	12.7	0.6	0.6	9.2	0.2	1.0	19.5	0.2	0.7	61.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.4	1.9	5.3	1.0	1.6	1.7	0.6	3.0	22.7	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.1	27.3	25.6	56.6	7.2	8.1	77.1	51.3	42.0	104.7	27.8	27.5
LnGrp LOS	E	C	C	E	A	A	E	D	D	F	C	C
Approach Vol, veh/h		539			725			205			601	
Approach Delay, s/veh		28.5			19.7			51.8			95.0	
Approach LOS		C			B			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	49.4	8.4	43.6	6.8	61.2	37.5	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	18.0	8.6	49.9	5.5	38.0	33.0	25.5				
Max Q Clear Time (g_c+I1), s	13.7	12.2	5.0	3.5	3.2	6.8	35.0	9.5				
Green Ext Time (p_c), s	0.4	1.5	0.0	0.4	0.0	3.0	0.0	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				47.0								
HCM 6th LOS				D								

Timings  
1: Singleton Rd. & I-10 EB Ramps

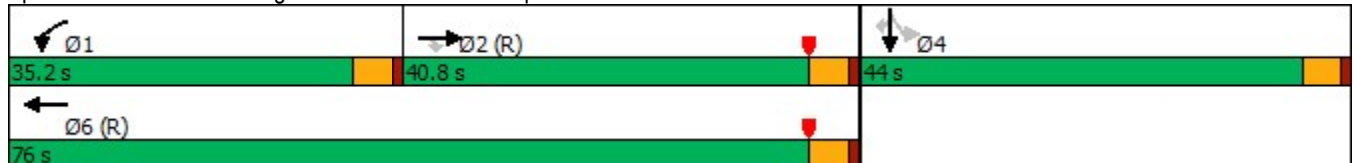
IY (2028) w/ Scenario 1 Project PM Peak Hour

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑	↔	↘
Traffic Volume (vph)	867	431	388	852	0	577
Future Volume (vph)	867	431	388	852	0	577
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	40.8	40.8	35.2	76.0	44.0	44.0
Total Split (%)	34.0%	34.0%	29.3%	63.3%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	36.8	36.8	30.2	71.5	39.5	39.5
Actuated g/C Ratio	0.31	0.31	0.25	0.60	0.33	0.33
v/c Ratio	0.88	0.76	0.96	0.84	0.97	0.91
Control Delay	57.7	39.0	63.2	21.4	67.3	49.4
Queue Delay	0.0	0.0	0.0	7.0	5.6	0.0
Total Delay	57.7	39.0	63.2	28.4	72.9	49.4
LOS	E	D	E	C	E	D
Approach Delay	51.5			39.3	61.7	
Approach LOS	D			D	E	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 50.2  
 Intersection LOS: D  
 Intersection Capacity Utilization 98.2%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

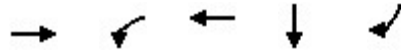


HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

IY (2028) w/ Scenario 1 Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑						↕	↗
Traffic Volume (veh/h)	0	867	431	388	852	0	0	0	0	443	0	577
Future Volume (veh/h)	0	867	431	388	852	0	0	0	0	443	0	577
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	953	474	426	936	0				487	110	560
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1101	491	443	1114	0				483	109	522
Arrive On Green	0.00	0.31	0.31	0.50	1.00	0.00				0.33	0.33	0.33
Sat Flow, veh/h	0	3647	1585	1781	1870	0				1466	331	1585
Grp Volume(v), veh/h	0	953	474	426	936	0				597	0	560
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1797	0	1585
Q Serve(g_s), s	0.0	30.4	35.3	27.7	0.0	0.0				39.5	0.0	39.5
Cycle Q Clear(g_c), s	0.0	30.4	35.3	27.7	0.0	0.0				39.5	0.0	39.5
Prop In Lane	0.00		1.00	1.00		0.00				0.82		1.00
Lane Grp Cap(c), veh/h	0	1101	491	443	1114	0				592	0	522
V/C Ratio(X)	0.00	0.87	0.97	0.96	0.84	0.00				1.01	0.00	1.07
Avail Cap(c_a), veh/h	0	1101	491	456	1114	0				592	0	522
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.65	0.65	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	39.1	40.8	29.6	0.0	0.0				40.3	0.0	40.3
Incr Delay (d2), s/veh	0.0	6.2	25.4	6.1	0.8	0.0				39.3	0.0	60.5
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	0.0	14.1	17.1	9.7	0.2	0.0				23.6	0.0	23.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	45.3	66.1	35.7	0.8	0.0				79.6	0.0	100.8
LnGrp LOS	A	D	E	D	A	A				F	A	F
Approach Vol, veh/h		1427			1362						1157	
Approach Delay, s/veh		52.2			11.7						89.8	
Approach LOS		D			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	34.3	41.7		44.0		76.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	30.7	36.3		39.5		71.5						
Max Q Clear Time (g_c+I1), s	29.7	37.3		41.5		2.0						
Green Ext Time (p_c), s	0.2	0.0		0.0		10.2						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.3									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	→	↶	↷	↓	↷
Traffic Volume (vph)	867	388	852	0	577
Future Volume (vph)	867	388	852	0	577
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	67.0	23.0	90.0	30.0	30.0
Total Split (%)	55.8%	19.2%	75.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	62.5	18.5	85.5	25.5	25.5
Actuated g/C Ratio	0.52	0.15	0.71	0.21	0.21
v/c Ratio	1.52	1.57	0.71	1.23	1.30
Control Delay	263.5	287.2	13.2	165.3	175.4
Queue Delay	0.1	0.0	33.0	0.0	0.0
Total Delay	263.6	287.2	46.2	165.3	175.4
LOS	F	F	D	F	F
Approach Delay	263.6		121.6	171.0	
Approach LOS	F		F	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.57  
 Intersection Signal Delay: 187.6  
 Intersection Capacity Utilization 170.7%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H


















Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

















HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	867	431	388	852	0	0	0	0	443	0	577
Future Volume (veh/h)	0	867	431	388	852	0	0	0	0	443	0	577
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	953	474	426	936	0				487	0	634
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	614	305	275	1333	0				379	0	337
Arrive On Green	0.00	0.52	0.52	0.31	1.00	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	1179	586	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1427	426	936	0				487	0	634
Grp Sat Flow(s),veh/h/ln	0	0	1765	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	62.5	18.5	0.0	0.0				25.5	0.0	25.5
Cycle Q Clear(g_c), s	0.0	0.0	62.5	18.5	0.0	0.0				25.5	0.0	25.5
Prop In Lane	0.00		0.33	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	919	275	1333	0				379	0	337
V/C Ratio(X)	0.00	0.00	1.55	1.55	0.70	0.00				1.29	0.00	1.88
Avail Cap(c_a), veh/h	0	0	919	275	1333	0				379	0	337
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	28.8	41.5	0.0	0.0				47.3	0.0	47.3
Incr Delay (d2), s/veh	0.0	0.0	254.0	249.7	0.3	0.0				147.6	0.0	408.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	89.9	25.9	0.1	0.0				26.7	0.0	48.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	282.7	291.2	0.3	0.0				194.9	0.0	455.4
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1427			1362						1121	
Approach Delay, s/veh		282.7			91.3						342.2	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.0	67.0		30.0		90.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	18.5	62.5		25.5		85.5						
Max Q Clear Time (g_c+I1), s	20.5	64.5		27.5		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		10.3						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			233.1									
HCM 6th LOS			F									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
2: Singleton Rd. & I-10 WB Ramps

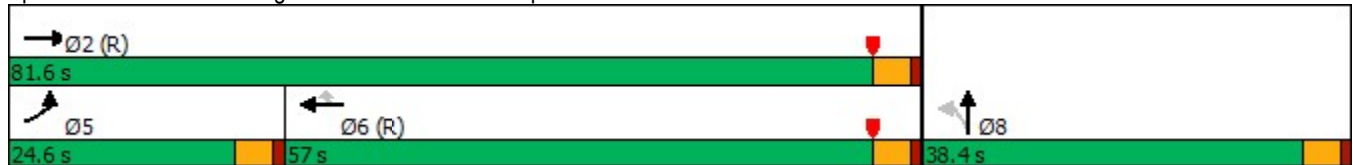
IY (2028) w/ Scenario 1 Project PM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	529	782	772	533	470	0
Future Volume (vph)	529	782	772	533	470	0
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	5	2	6			8
Permitted Phases				6	8	
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.6	81.6	57.0	57.0	38.4	38.4
Total Split (%)	20.5%	68.0%	47.5%	47.5%	32.0%	32.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	20.1	77.1	52.5	52.5	33.9	33.9
Actuated g/C Ratio	0.17	0.64	0.44	0.44	0.28	0.28
v/c Ratio	1.00	0.71	1.03	0.63	1.02	0.94
Control Delay	69.4	24.3	64.3	7.4	88.8	52.2
Queue Delay	0.0	1.9	17.7	0.3	0.0	1.6
Total Delay	69.4	26.2	82.1	7.8	88.8	53.8
LOS	E	C	F	A	F	D
Approach Delay		43.6	51.7			70.7
Approach LOS		D	D			E

Intersection Summary




















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 53.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 98.2%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps











HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) w/ Scenario 1 Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 											
Traffic Volume (veh/h)	529	782	0	0	772	533	470	0	504	0	0	0
Future Volume (veh/h)	529	782	0	0	772	533	470	0	504	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	575	850	0	0	839	579	511	0	548			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	579	1202	0	0	818	693	503	0	448			
Arrive On Green	0.34	1.00	0.00	0.00	0.88	0.88	0.28	0.00	0.28			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	575	850	0	0	839	579	511	0	548			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	19.9	0.0	0.0	0.0	52.5	20.3	33.9	0.0	33.9			
Cycle Q Clear(g_c), s	19.9	0.0	0.0	0.0	52.5	20.3	33.9	0.0	33.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	579	1202	0	0	818	693	503	0	448			
V/C Ratio(X)	0.99	0.71	0.00	0.00	1.03	0.83	1.02	0.00	1.22			
Avail Cap(c_a), veh/h	579	1202	0	0	818	693	503	0	448			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.36	0.36	0.00	0.00	0.79	0.79	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.8	0.0	0.0	0.0	7.5	5.5	43.1	0.0	43.1			
Incr Delay (d2), s/veh	20.8	1.3	0.0	0.0	34.6	9.2	44.1	0.0	119.3			
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	8.7	0.4	0.0	0.0	11.1	4.0	20.9	0.0	28.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	1.3	0.0	0.0	42.1	14.7	87.1	0.0	162.3			
LnGrp LOS	E	A	A	A	F	B	F	A	F			
Approach Vol, veh/h		1425			1418			1059				
Approach Delay, s/veh		25.2			30.9			126.0				
Approach LOS		C			C			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		81.6			24.6	57.0		38.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		77.1			20.1	52.5		33.9				
Max Q Clear Time (g_c+I1), s		2.0			21.9	54.5		35.9				
Green Ext Time (p_c), s		8.5			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					54.7							
HCM 6th LOS					D							

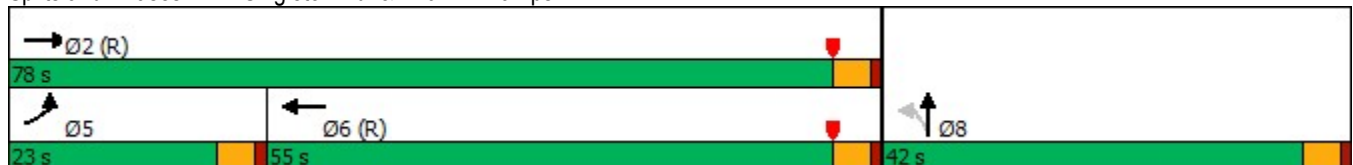
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	529	782	772	0
Future Volume (vph)	529	782	772	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	23.0	78.0	55.0	42.0
Total Split (%)	19.2%	65.0%	45.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	18.5	73.5	50.5	37.5
Actuated g/C Ratio	0.15	0.61	0.42	0.31
v/c Ratio	2.11	0.74	1.86	1.87
Control Delay	529.8	18.9	418.0	424.2
Queue Delay	0.0	17.3	0.0	0.0
Total Delay	529.8	36.3	418.0	424.2
LOS	F	D	F	F
Approach Delay		235.4	418.0	424.2
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.11	
Intersection Signal Delay: 353.0	Intersection LOS: F
Intersection Capacity Utilization 170.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	529	782	0	0	772	533	470	0	504	0	0	0
Future Volume (veh/h)	529	782	0	0	772	533	470	0	504	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	575	850	0	0	839	579	511	0	548			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	275	1146	0	0	434	299	252	0	271			
Arrive On Green	0.31	1.00	0.00	0.00	0.42	0.42	0.31	0.00	0.31			
Sat Flow, veh/h	1781	1870	0	0	1031	711	808	0	866			
Grp Volume(v), veh/h	575	850	0	0	0	1418	1059	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1742	1674	0	0			
Q Serve(g_s), s	18.5	0.0	0.0	0.0	0.0	50.5	37.5	0.0	0.0			
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	0.0	50.5	37.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.41	0.48		0.52			
Lane Grp Cap(c), veh/h	275	1146	0	0	0	733	523	0	0			
V/C Ratio(X)	2.09	0.74	0.00	0.00	0.00	1.93	2.02	0.00	0.00			
Avail Cap(c_a), veh/h	275	1146	0	0	0	733	523	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	0.0	0.0	0.0	0.0	34.8	41.3	0.0	0.0			
Incr Delay (d2), s/veh	493.3	0.4	0.0	0.0	0.0	425.3	467.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	44.5	0.1	0.0	0.0	0.0	107.4	83.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	534.8	0.4	0.0	0.0	0.0	460.0	508.9	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1425			1418			1059				
Approach Delay, s/veh		216.1			460.0			508.9				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		78.0			23.0	55.0		42.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		73.5			18.5	50.5		37.5				
Max Q Clear Time (g_c+I1), s		2.0			20.5	52.5		39.5				
Green Ext Time (p_c), s		8.4			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					384.2							
HCM 6th LOS					F							

Timings

IY (2028) w/ Scenario 1 Project PM Peak Hour

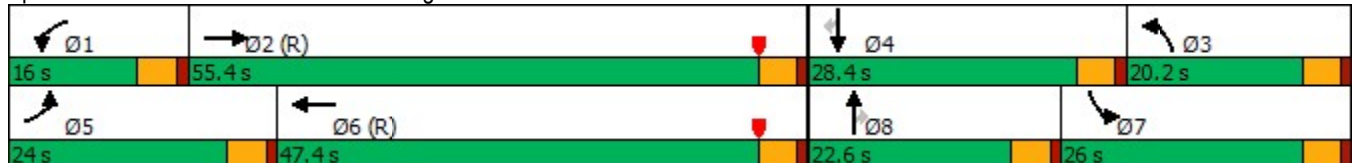
3: Calimesa Bl. & Singleton Rd.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	158	874	83	797	262	71	51	191	130	244
Future Volume (vph)	158	874	83	797	262	71	51	191	130	244
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	24.0	55.4	16.0	47.4	20.2	22.6	22.6	26.0	28.4	28.4
Total Split (%)	20.0%	46.2%	13.3%	39.5%	16.8%	18.8%	18.8%	21.7%	23.7%	23.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	15.7	64.4	10.3	56.8	15.2	11.9	11.9	20.5	14.3	14.3
Actuated g/C Ratio	0.13	0.54	0.09	0.47	0.13	0.10	0.10	0.17	0.12	0.12
v/c Ratio	0.71	0.63	0.57	0.56	0.62	0.39	0.17	0.65	0.60	0.61
Control Delay	61.1	25.3	66.3	24.7	67.4	60.4	1.1	57.9	61.1	12.4
Queue Delay	0.0	0.5	0.0	0.2	0.0	0.0	0.0	0.7	0.0	0.1
Total Delay	61.1	25.8	66.3	25.0	67.4	60.4	1.1	58.7	61.1	12.5
LOS	E	C	E	C	E	E	A	E	E	B
Approach Delay		30.1		28.5		57.2			39.3	
Approach LOS		C		C		E			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 34.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 70.8%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

IY (2028) w/ Scenario 1 Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	874	254	83	797	94	262	71	51	191	130	244
Future Volume (veh/h)	158	874	254	83	797	94	262	71	51	191	130	244
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	901	262	86	822	97	270	73	53	197	134	252
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1535	446	109	1666	197	333	156	132	250	238	201
Arrive On Green	0.21	1.00	1.00	0.02	0.17	0.17	0.10	0.08	0.08	0.14	0.13	0.13
Sat Flow, veh/h	1781	2717	789	1781	3201	378	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	163	589	574	86	456	463	270	73	53	197	134	252
Grp Sat Flow(s),veh/h/ln	1781	1777	1728	1781	1777	1802	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	10.6	0.0	0.0	5.8	27.9	27.9	9.2	4.5	3.2	12.8	8.1	12.1
Cycle Q Clear(g_c), s	10.6	0.0	0.0	5.8	27.9	27.9	9.2	4.5	3.2	12.8	8.1	12.1
Prop In Lane	1.00		0.46	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	1004	977	109	925	938	333	156	132	250	238	201
V/C Ratio(X)	0.86	0.59	0.59	0.79	0.49	0.49	0.81	0.47	0.40	0.79	0.56	1.25
Avail Cap(c_a), veh/h	289	1004	977	171	925	938	452	282	239	319	373	316
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	0.0	0.0	58.0	35.4	35.4	53.1	52.5	37.8	49.9	49.3	32.9
Incr Delay (d2), s/veh	10.2	1.6	1.7	11.9	1.9	1.9	7.8	2.2	2.0	9.8	2.1	138.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.4	0.5	3.0	13.8	14.0	4.4	2.2	1.6	6.4	3.9	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	1.6	1.7	69.9	37.3	37.2	60.9	54.6	39.7	59.7	51.4	171.2
LnGrp LOS	E	A	A	E	D	D	E	D	D	E	D	F
Approach Vol, veh/h		1326			1005			396			583	
Approach Delay, s/veh		8.4			40.0			56.9			106.0	
Approach LOS		A			D			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	72.3	16.1	19.7	17.3	66.9	21.3	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.5	50.9	15.7	23.9	19.5	42.9	21.5	18.1				
Max Q Clear Time (g_c+I1), s	7.8	2.0	11.2	14.1	12.6	29.9	14.8	6.5				
Green Ext Time (p_c), s	0.1	10.8	0.4	1.2	0.2	4.9	0.3	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			41.0									
HCM 6th LOS			D									



Timings  
4: Beckwith Av. & Singleton Rd.

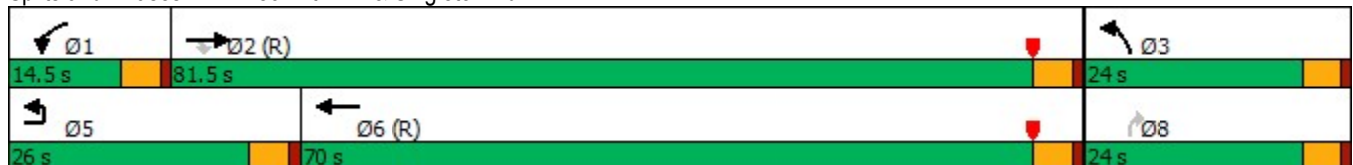
IY (2028) w/ Scenario 1 Project PM Peak Hour

Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	169	742	255	63	688	151	38
Future Volume (vph)	169	742	255	63	688	151	38
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	3	
Permitted Phases			2				8
Detector Phase	5	2	2	1	6	3	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	26.0	81.5	81.5	14.5	70.0	24.0	24.0
Total Split (%)	21.7%	67.9%	67.9%	12.1%	58.3%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	17.2	80.3	80.3	8.8	69.8	19.5	19.5
Actuated g/C Ratio	0.14	0.67	0.67	0.07	0.58	0.16	0.16
v/c Ratio	0.73	0.63	0.23	0.51	0.67	0.55	0.14
Control Delay	55.6	19.2	6.2	67.0	21.8	54.5	14.1
Queue Delay	0.0	0.8	0.0	0.0	0.0	0.0	0.0
Total Delay	55.6	20.0	6.2	67.0	21.8	54.5	14.1
LOS	E	C	A	E	C	D	B
Approach Delay		22.3			25.6	46.3	
Approach LOS		C			C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 93.4 (78%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 25.6  
 Intersection Capacity Utilization 65.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 4: Beckwith Av. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

IY (2028) w/ Scenario 1 Project PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↗	↖
Traffic Volume (veh/h)	169	742	255	63	688	151	38
Future Volume (veh/h)	169	742	255	63	688	151	38
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		781	268	66	724	159	40
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1267	1074	85	1426	289	258
Arrive On Green		0.45	0.45	0.05	0.76	0.16	0.16
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		781	268	66	724	159	40
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		38.0	12.5	4.4	18.0	9.8	2.6
Cycle Q Clear(g_c), s		38.0	12.5	4.4	18.0	9.8	2.6
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1267	1074	85	1426	289	258
V/C Ratio(X)		0.62	0.25	0.78	0.51	0.55	0.16
Avail Cap(c_a), veh/h		1267	1074	148	1426	289	258
HCM Platoon Ratio		0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		21.0	14.0	56.5	5.5	46.2	43.2
Incr Delay (d2), s/veh		2.3	0.6	14.0	1.3	7.3	1.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		18.5	5.0	2.3	6.4	4.9	1.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		23.2	14.5	70.6	6.8	53.5	44.5
LnGrp LOS		C	B	E	A	D	D
Approach Vol, veh/h		1049			790	199	
Approach Delay, s/veh		21.0			12.1	51.7	
Approach LOS		C			B	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	10.2	85.8			96.0	24.0	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	10.0	77.0			65.5	19.5	
Max Q Clear Time (g_c+I1), s	6.4	40.0			20.0	11.8	
Green Ext Time (p_c), s	0.0	8.1			6.2	0.3	
<b>Intersection Summary</b>							
HCM 6th Ctrl Delay			20.6				
HCM 6th LOS			C				
<b>Notes</b>							
User approved ignoring U-Turning movement.							

Timings  
6: Calimesa Bl. & 5th St.

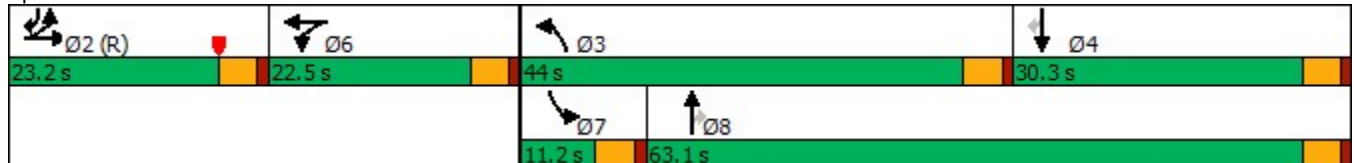
IY (2028) w/ Scenario 1 Project PM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	190	178	95	327	1036	414	217	34	364	502
Future Volume (vph)	190	178	95	327	1036	414	217	34	364	502
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	23.2	23.2	22.5	22.5	44.0	63.1	63.1	11.2	30.3	23.2
Total Split (%)	19.3%	19.3%	18.8%	18.8%	36.7%	52.6%	52.6%	9.3%	25.3%	19.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	18.7	18.7	16.7	16.7	40.0	64.4	64.4	6.5	26.6	49.8
Actuated g/C Ratio	0.16	0.16	0.14	0.14	0.33	0.54	0.54	0.05	0.22	0.42
v/c Ratio	0.72	0.61	0.41	0.77	0.96	0.44	0.26	0.38	0.94	0.75
Control Delay	65.4	39.4	52.1	59.9	51.7	22.1	12.8	66.5	77.8	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.4	39.4	52.1	59.9	51.7	22.1	12.8	66.5	77.8	32.3
LOS	E	D	D	E	D	C	B	E	E	C
Approach Delay		48.2		58.3		39.3			51.9	
Approach LOS		D		E		D			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 46.2  
 Intersection Capacity Utilization 83.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

IY (2028) w/ Scenario 1 Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	178	132	95	327	29	1036	414	217	34	364	502
Future Volume (veh/h)	190	178	132	95	327	29	1036	414	217	34	364	502
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	224	140	101	348	31	1102	440	231	36	387	534
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	318	391	234	227	421	37	1138	963	816	52	402	624
Arrive On Green	0.18	0.18	0.18	0.13	0.13	0.13	0.33	0.52	0.52	0.03	0.22	0.22
Sat Flow, veh/h	1781	2192	1312	1781	3302	292	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	177	190	174	101	186	193	1102	440	231	36	387	534
Grp Sat Flow(s),veh/h/ln	1781	1870	1634	1781	1777	1818	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	10.9	11.1	11.8	6.3	12.3	12.4	37.7	17.9	9.9	2.4	24.6	25.8
Cycle Q Clear(g_c), s	10.9	11.1	11.8	6.3	12.3	12.4	37.7	17.9	9.9	2.4	24.6	25.8
Prop In Lane	1.00		0.80	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	334	292	227	226	232	1138	963	816	52	402	624
V/C Ratio(X)	0.56	0.57	0.60	0.45	0.82	0.83	0.97	0.46	0.28	0.69	0.96	0.86
Avail Cap(c_a), veh/h	318	334	292	267	267	273	1138	963	816	99	402	624
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(l)	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	45.0	45.1	45.3	48.4	51.0	51.1	39.6	18.5	16.5	57.7	46.6	29.9
Incr Delay (d2), s/veh	6.9	6.9	8.8	1.4	16.2	17.0	19.5	1.6	0.9	15.3	36.4	14.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	5.8	5.5	2.9	6.5	6.7	18.7	7.9	3.7	1.3	15.3	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	51.9	54.1	49.8	67.3	68.1	59.2	20.0	17.4	73.0	83.0	44.0
LnGrp LOS	D	D	D	D	E	E	E	C	B	E	F	D
Approach Vol, veh/h		541			480			1773			957	
Approach Delay, s/veh		52.6			63.9			44.0			60.9	
Approach LOS		D			E			D			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.9	44.0	30.3		19.8	8.0	66.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.7	39.5	25.8		18.0	6.7	58.6				
Max Q Clear Time (g_c+I1), s		13.8	39.7	27.8		14.4	4.4	19.9				
Green Ext Time (p_c), s		1.2	0.0	0.0		0.9	0.0	3.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			52.1									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

IY (2028) w/ Scenario 1 Project PM Peak Hour

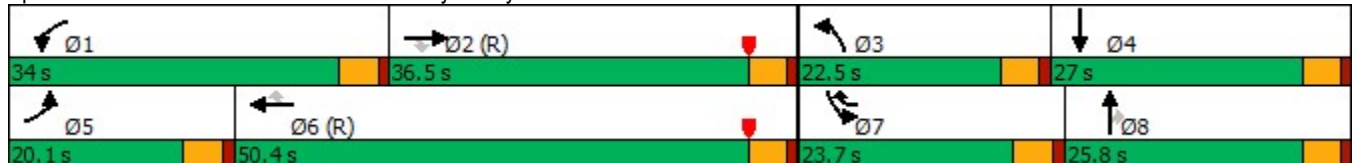
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	259	599	26	274	675	435	26	9	148	326	12
Future Volume (vph)	259	599	26	274	675	435	26	9	148	326	12
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.1	36.5	36.5	34.0	50.4	23.7	22.5	25.8	25.8	23.7	27.0
Total Split (%)	16.8%	30.4%	30.4%	28.3%	42.0%	19.8%	18.8%	21.5%	21.5%	19.8%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	14.0	37.4	37.4	24.1	47.5	71.2	18.0	21.3	21.3	19.2	22.5
Actuated g/C Ratio	0.12	0.31	0.31	0.20	0.40	0.59	0.15	0.18	0.18	0.16	0.19
v/c Ratio	0.68	0.57	0.05	0.81	0.51	0.44	0.10	0.03	0.38	0.62	0.61
Control Delay	59.9	38.0	0.2	63.5	32.6	14.8	45.2	41.2	9.5	52.7	10.4
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	59.9	38.0	0.2	63.5	32.6	14.8	45.2	41.2	9.5	52.7	10.4
LOS	E	D	A	E	C	B	D	D	A	D	B
Approach Delay		43.3			33.1			16.0			31.4
Approach LOS		D			C			B			C

Intersection Summary





























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 34.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 64.6%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



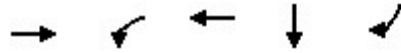
HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

IY (2028) w/ Scenario 1 Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 					 		
Traffic Volume (veh/h)	259	599	26	274	675	435	26	9	148	326	12	317
Future Volume (veh/h)	259	599	26	274	675	435	26	9	148	326	12	317
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	273	631	27	288	711	458	27	9	156	343	13	334
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	336	1183	528	320	1476	912	267	332	281	553	11	288
Arrive On Green	0.10	0.33	0.33	0.18	0.42	0.42	0.15	0.18	0.18	0.16	0.19	0.19
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	60	1534
Grp Volume(v), veh/h	273	631	27	288	711	458	27	9	156	343	0	347
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1594
Q Serve(g_s), s	9.3	17.3	1.4	19.0	17.5	20.7	1.6	0.5	10.8	11.1	0.0	22.5
Cycle Q Clear(g_c), s	9.3	17.3	1.4	19.0	17.5	20.7	1.6	0.5	10.8	11.1	0.0	22.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	336	1183	528	320	1476	912	267	332	281	553	0	299
V/C Ratio(X)	0.81	0.53	0.05	0.90	0.48	0.50	0.10	0.03	0.55	0.62	0.00	1.16
Avail Cap(c_a), veh/h	449	1183	528	438	1476	912	267	332	281	553	0	299
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(l)	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	53.1	32.5	27.2	48.2	25.6	15.2	44.0	40.8	45.0	47.0	0.0	48.8
Incr Delay (d2), s/veh	8.2	1.7	0.2	17.1	1.1	2.0	0.8	0.2	7.7	5.2	0.0	103.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	7.6	0.6	9.8	7.5	7.7	0.8	0.2	4.8	5.2	0.0	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	34.2	27.3	65.3	26.8	17.2	44.8	40.9	52.7	52.2	0.0	151.7
LnGrp LOS	E	C	C	E	C	B	D	D	D	D	A	F
Approach Vol, veh/h		931			1457			192				690
Approach Delay, s/veh		41.9			31.4			51.0				102.2
Approach LOS		D			C			D				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	44.5	22.5	27.0	16.2	54.3	23.7	25.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	29.5	32.0	18.0	22.5	15.6	45.9	19.2	21.3				
Max Q Clear Time (g_c+I1), s	21.0	19.3	3.6	24.5	11.3	22.7	13.1	12.8				
Green Ext Time (p_c), s	0.6	3.4	0.0	0.0	0.4	6.9	0.7	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				50.5								
HCM 6th LOS				D								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 1 Project PM Peak Hour

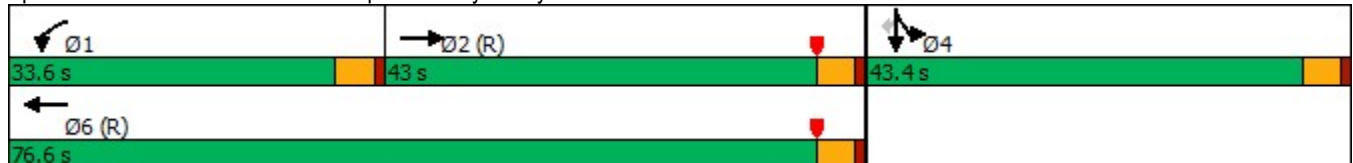


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↵	↑↑	↵	↵↵
Traffic Volume (vph)	856	405	587	0	797
Future Volume (vph)	856	405	587	0	797
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	43.0	33.6	76.6	43.4	43.4
Total Split (%)	35.8%	28.0%	63.8%	36.2%	36.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Min	Max	Max
Act Effct Green (s)	38.7	28.9	72.1	38.9	38.9
Actuated g/C Ratio	0.32	0.24	0.60	0.32	0.32
v/c Ratio	0.96	0.96	0.28	0.96	0.64
Control Delay	70.6	61.4	20.6	70.0	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	70.6	61.4	20.6	70.0	13.4
LOS	E	E	C	E	B
Approach Delay	70.6		37.3	36.4	
Approach LOS	E		D	D	

Intersection Summary


















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 80 (67%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 47.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 121.4%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.











IY (2028) w/ Scenario 1 Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	856	218	405	587	0	0	0	0	546	0	797
Future Volume (veh/h)	0	856	218	405	587	0	0	0	0	546	0	797
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	865	220	409	593	0				552	0	805
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	910	231	426	2135	0				577	0	904
Arrive On Green	0.00	0.32	0.32	0.48	1.00	0.00				0.32	0.00	0.32
Sat Flow, veh/h	0	2899	713	1781	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	548	537	409	593	0				552	0	805
Grp Sat Flow(s),veh/h/ln	0	1777	1742	1781	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	36.1	36.2	26.6	0.0	0.0				36.4	0.0	32.9
Cycle Q Clear(g_c), s	0.0	36.1	36.2	26.6	0.0	0.0				36.4	0.0	32.9
Prop In Lane	0.00		0.41	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	576	565	426	2135	0				577	0	904
V/C Ratio(X)	0.00	0.95	0.95	0.96	0.28	0.00				0.96	0.00	0.89
Avail Cap(c_a), veh/h	0	576	565	432	2135	0				577	0	904
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.52	0.52	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	39.6	39.6	30.8	0.0	0.0				39.7	0.0	38.5
Incr Delay (d2), s/veh	0.0	27.0	27.5	22.0	0.2	0.0				28.0	0.0	12.8
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	0.0	19.7	19.4	11.1	0.0	0.0				20.2	0.0	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	66.6	67.1	52.8	0.2	0.0				67.7	0.0	51.3
LnGrp LOS	A	E	E	D	A	A				E	A	D
Approach Vol, veh/h		1085			1002						1357	
Approach Delay, s/veh		66.9			21.6						58.0	
Approach LOS		E			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	33.2	43.4		43.4		76.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.1	38.5		38.9		72.1						
Max Q Clear Time (g_c+I1), s	28.6	38.2		38.4		2.0						
Green Ext Time (p_c), s	0.1	0.2		0.4		4.5						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				50.2								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

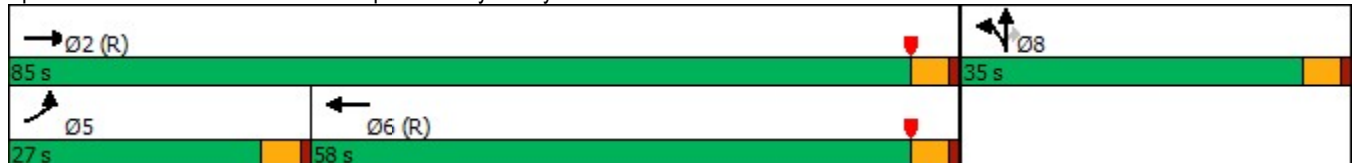
IY (2028) w/ Scenario 1 Project PM Peak Hour

					
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	496	907	752	9	473
Future Volume (vph)	496	907	752	9	473
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	27.0	85.0	58.0	35.0	35.0
Total Split (%)	22.5%	70.8%	48.3%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Min	C-Max	None	None
Act Effct Green (s)	21.4	83.5	57.6	27.5	27.5
Actuated g/C Ratio	0.18	0.70	0.48	0.23	0.23
v/c Ratio	0.85	0.74	0.79	0.64	0.90
Control Delay	71.0	7.0	16.4	49.1	48.9
Queue Delay	0.0	2.1	0.0	0.0	0.0
Total Delay	71.0	9.1	16.4	49.1	48.9
LOS	E	A	B	D	D
Approach Delay		30.9	16.4	49.0	
Approach LOS		C	B	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 29.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 121.4%  
 ICU Level of Service H  
 Analysis Period (min) 15




















Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.





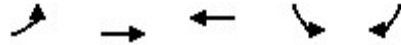
HCM 6th Signalized Intersection Summary  
9: I-10 WB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 1 Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 							
Traffic Volume (veh/h)	496	907	0	0	752	509	240	9	473	0	0	0
Future Volume (veh/h)	496	907	0	0	752	509	240	9	473	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	522	955	0	0	792	536	253	9	498			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	576	1255	0	0	953	635	438	16	403			
Arrive On Green	0.33	1.00	0.00	0.00	0.31	0.31	0.25	0.25	0.25			
Sat Flow, veh/h	3456	1870	0	0	2135	1361	1723	61	1585			
Grp Volume(v), veh/h	522	955	0	0	688	640	262	0	498			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1625	1784	0	1585			
Q Serve(g_s), s	17.3	0.0	0.0	0.0	43.1	44.1	15.4	0.0	30.5			
Cycle Q Clear(g_c), s	17.3	0.0	0.0	0.0	43.1	44.1	15.4	0.0	30.5			
Prop In Lane	1.00		0.00	0.00		0.84	0.97		1.00			
Lane Grp Cap(c), veh/h	576	1255	0	0	829	759	453	0	403			
V/C Ratio(X)	0.91	0.76	0.00	0.00	0.83	0.84	0.58	0.00	1.24			
Avail Cap(c_a), veh/h	648	1255	0	0	829	759	453	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(l)	0.18	0.18	0.00	0.00	0.74	0.74	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.1	0.0	0.0	0.0	36.8	37.2	39.1	0.0	44.7			
Incr Delay (d2), s/veh	3.5	0.8	0.0	0.0	7.1	8.5	1.8	0.0	126.0			
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	6.3	0.3	0.0	0.0	21.0	19.9	7.0	0.0	26.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	0.8	0.0	0.0	43.9	45.6	40.9	0.0	170.7			
LnGrp LOS	D	A	A	A	D	D	D	A	F			
Approach Vol, veh/h		1477			1328			760				
Approach Delay, s/veh		15.6			44.7			126.0				
Approach LOS		B			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		85.0			24.5	60.5		35.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		80.5			22.5	53.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0			19.3	46.1		32.5				
Green Ext Time (p_c), s		10.0			0.7	4.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				50.0								
HCM 6th LOS				D								

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 1 Project PM Peak Hour

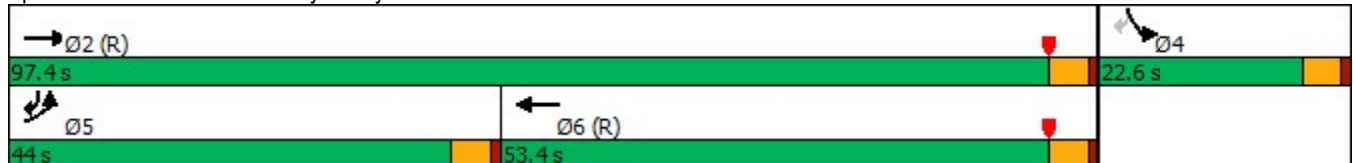


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑	↕	↘	↗
Traffic Volume (vph)	375	1006	934	129	327
Future Volume (vph)	375	1006	934	129	327
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	44.0	97.4	53.4	22.6	44.0
Total Split (%)	36.7%	81.2%	44.5%	18.8%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	32.7	92.9	55.7	18.1	55.3
Actuated g/C Ratio	0.27	0.77	0.46	0.15	0.46
v/c Ratio	0.85	0.76	0.68	0.53	0.47
Control Delay	54.3	9.3	28.7	52.7	23.0
Queue Delay	0.0	0.8	0.0	0.0	0.0
Total Delay	54.3	10.1	28.7	52.7	23.0
LOS	D	B	C	D	C
Approach Delay		22.1	28.7	31.4	
Approach LOS		C	C	C	

Intersection Summary

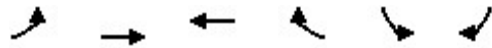
Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 25.9  
 Intersection Capacity Utilization 67.6%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 1 Project PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	375	1006	934	83	129	327
Future Volume (veh/h)	375	1006	934	83	129	327
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	408	1093	1015	90	140	355
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	439	1448	1619	144	269	630
Arrive On Green	0.33	1.00	0.49	0.49	0.15	0.15
Sat Flow, veh/h	1781	1870	3395	293	1781	1585
Grp Volume(v), veh/h	408	1093	546	559	140	355
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1818	1781	1585
Q Serve(g_s), s	26.6	0.0	27.1	27.2	8.7	18.1
Cycle Q Clear(g_c), s	26.6	0.0	27.1	27.2	8.7	18.1
Prop In Lane	1.00			0.16	1.00	1.00
Lane Grp Cap(c), veh/h	439	1448	871	891	269	630
V/C Ratio(X)	0.93	0.75	0.63	0.63	0.52	0.56
Avail Cap(c_a), veh/h	586	1448	871	891	269	630
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.51	0.51	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	0.0	22.5	22.5	47.0	28.1
Incr Delay (d2), s/veh	10.8	1.9	3.4	3.3	7.1	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	0.8	11.8	12.0	4.4	19.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.1	1.9	25.9	25.8	54.0	31.7
LnGrp LOS	D	A	C	C	D	C
Approach Vol, veh/h		1501	1105		495	
Approach Delay, s/veh		15.0	25.9		38.0	
Approach LOS		B	C		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	34.1	63.3
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	39.5	48.9
Max Q Clear Time (g_c+I1), s		2.0		20.1	28.6	29.2
Green Ext Time (p_c), s		13.9		0.0	1.0	7.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			22.6			
HCM 6th LOS			C			

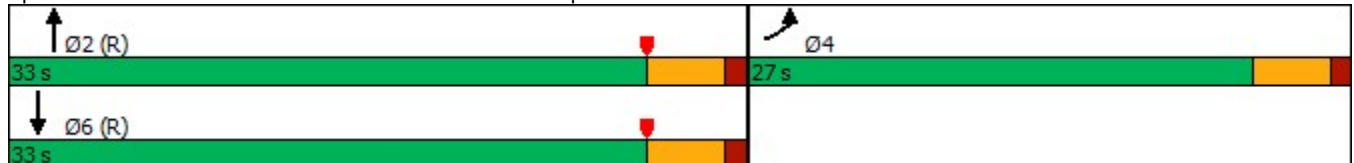
Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 1 Project PM Peak Hour

Lane Group	EBL	NBT	SBT
Lane Configurations	↘	↑↑	↑
Traffic Volume (vph)	399	1185	550
Future Volume (vph)	399	1185	550
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	27.0	33.0	33.0
Total Split (%)	45.0%	55.0%	55.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	18.8	32.2	32.2
Actuated g/C Ratio	0.31	0.54	0.54
v/c Ratio	0.77	0.67	0.59
Control Delay	28.4	13.2	12.5
Queue Delay	0.0	0.0	0.0
Total Delay	28.4	13.2	12.5
LOS	C	B	B
Approach Delay	28.4	13.2	12.5
Approach LOS	C	B	B

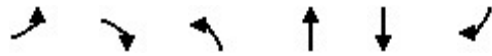
**Intersection Summary**  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 15.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.4%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 1 Project PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑	
Traffic Volume (veh/h)	399	1	0	1185	550	0
Future Volume (veh/h)	399	1	0	1185	550	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	429	1	0	1274	591	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	492	1	0	2034	1071	0
Arrive On Green	0.28	0.28	0.00	0.57	0.57	0.00
Sat Flow, veh/h	1773	4	0	3741	1870	0
Grp Volume(v), veh/h	431	0	0	1274	591	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1777	1870	0
Q Serve(g_s), s	13.8	0.0	0.0	14.3	11.9	0.0
Cycle Q Clear(g_c), s	13.8	0.0	0.0	14.3	11.9	0.0
Prop In Lane	1.00	0.00	0.00			0.00
Lane Grp Cap(c), veh/h	494	0	0	2034	1071	0
V/C Ratio(X)	0.87	0.00	0.00	0.63	0.55	0.00
Avail Cap(c_a), veh/h	668	0	0	2034	1071	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	8.5	8.0	0.0
Incr Delay (d2), s/veh	9.5	0.0	0.0	1.5	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	0.0	4.4	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	0.0	0.0	10.0	10.1	0.0
LnGrp LOS	C	A	A	B	B	A
Approach Vol, veh/h	431			1274	591	
Approach Delay, s/veh	30.1			10.0	10.1	
Approach LOS	C			B	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		38.8		21.2		38.8
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		28.5		22.5		28.5
Max Q Clear Time (g_c+I1), s		16.3		15.8		13.9
Green Ext Time (p_c), s		6.9		0.8		3.3

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

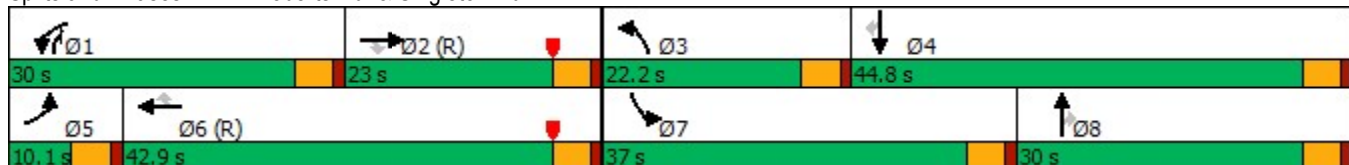
IY (2028) w/ Scenario 1 Project PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	461	98	300	518	530	129	72	310	436	54	4
Future Volume (vph)	18	461	98	300	518	530	129	72	310	436	54	4
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	10.1	23.0	23.0	30.0	42.9	42.9	22.2	30.0	30.0	37.0	44.8	44.8
Total Split (%)	8.4%	19.2%	19.2%	25.0%	35.8%	35.8%	18.5%	25.0%	25.0%	30.8%	37.3%	37.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	6.9	32.9	32.9	27.9	60.2	60.2	18.9	11.6	41.1	32.5	25.2	25.2
Actuated g/C Ratio	0.06	0.27	0.27	0.23	0.50	0.50	0.16	0.10	0.34	0.27	0.21	0.21
v/c Ratio	0.20	0.52	0.19	0.79	0.32	0.53	0.50	0.23	0.56	0.99	0.08	0.01
Control Delay	57.7	41.9	1.0	52.4	20.0	3.0	54.9	50.8	24.3	82.7	35.5	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	0.0
Total Delay	57.7	41.9	1.0	52.4	20.0	3.0	54.9	50.8	24.3	82.7	35.5	0.0
LOS	E	D	A	D	C	A	D	D	C	F	D	A
Approach Delay		35.4			20.5			35.8			76.9	
Approach LOS		D			C			D			E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 35.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 71.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

IY (2028) w/ Scenario 1 Project PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	461	98	300	518	530	129	72	310	436	54	4
Future Volume (veh/h)	18	461	98	300	518	530	129	72	310	436	54	4
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	20	501	107	326	563	576	140	78	337	474	59	4
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	36	694	309	349	1318	588	168	668	609	482	1295	578
Arrive On Green	0.02	0.20	0.20	0.33	0.62	0.62	0.09	0.19	0.19	0.27	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	501	107	326	563	576	140	78	337	474	59	4
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	15.9	7.0	21.3	9.8	42.2	9.3	2.2	20.0	31.7	1.3	0.2
Cycle Q Clear(g_c), s	1.3	15.9	7.0	21.3	9.8	42.2	9.3	2.2	20.0	31.7	1.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	694	309	349	1318	588	168	668	609	482	1295	578
V/C Ratio(X)	0.55	0.72	0.35	0.93	0.43	0.98	0.83	0.12	0.55	0.98	0.05	0.01
Avail Cap(c_a), veh/h	83	694	309	379	1318	588	263	755	647	482	1295	578
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.38	0.38	0.38	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	45.2	41.7	39.6	16.2	22.4	53.4	40.4	28.9	43.5	24.6	24.3
Incr Delay (d2), s/veh	12.6	6.4	3.0	14.5	0.4	18.6	12.2	0.1	0.9	36.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.6	3.0	9.7	3.5	14.5	4.7	1.0	7.7	18.7	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	51.7	44.7	54.1	16.6	41.0	65.6	40.5	29.8	79.8	24.7	24.3
LnGrp LOS	E	D	D	D	B	D	E	D	C	E	C	C
Approach Vol, veh/h		628			1465			555			537	
Approach Delay, s/veh		51.1			34.5			40.4			73.3	
Approach LOS		D			C			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.0	27.9	15.8	48.2	6.9	49.0	37.0	27.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	18.5	17.7	40.3	5.6	38.4	32.5	25.5				
Max Q Clear Time (g_c+I1), s	23.3	17.9	11.3	3.3	3.3	44.2	33.7	22.0				
Green Ext Time (p_c), s	0.2	0.3	0.2	0.3	0.0	0.0	0.0	0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			45.4									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

**APPENDIX 6.8: INTERIM YEAR CUMULATIVE (2028) WITH PROJECT  
SCENARIO 2 CONDITIONS INTERSECTION ANALYSIS WORKSHEETS**



This Page Intentionally Left Blank

Timings  
1: Singleton Rd. & I-10 EB Ramps

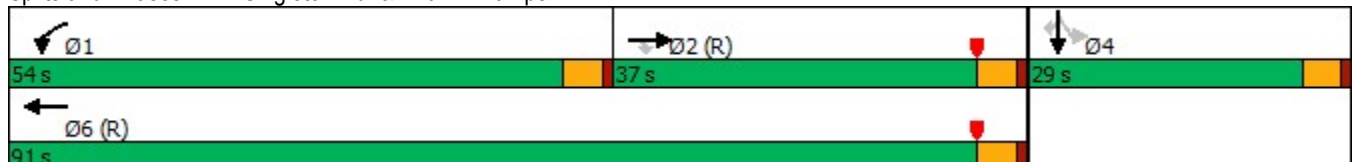
IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

	→	↘	↙	←	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑	↘	↕	↘
Traffic Volume (vph)	674	334	531	465	353	0	298
Future Volume (vph)	674	334	531	465	353	0	298
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	37.0	37.0	54.0	91.0	29.0	29.0	29.0
Total Split (%)	30.8%	30.8%	45.0%	75.8%	24.2%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	37.9	37.9	44.1	86.5	24.5	24.5	24.5
Actuated g/C Ratio	0.32	0.32	0.37	0.72	0.20	0.20	0.20
v/c Ratio	0.66	0.58	0.90	0.38	0.72	0.66	0.47
Control Delay	43.2	26.5	58.6	7.5	57.8	43.1	8.6
Queue Delay	0.0	0.0	0.3	0.3	0.0	0.0	0.0
Total Delay	43.2	26.5	58.9	7.8	57.8	43.1	8.6
LOS	D	C	E	A	E	D	A
Approach Delay	37.7			35.0		37.3	
Approach LOS	D			D		D	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 36.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 76.2%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

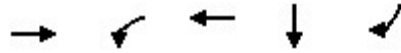


HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

IY (2028) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↘	↕	↗
Traffic Volume (veh/h)	0	674	334	531	465	0	0	0	0	353	0	298
Future Volume (veh/h)	0	674	334	531	465	0	0	0	0	353	0	298
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	741	367	584	511	0				490	0	218
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1216	542	608	1348	0				727	0	324
Arrive On Green	0.00	0.34	0.34	0.57	1.00	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	3647	1585	1781	1870	0				3563	0	1585
Grp Volume(v), veh/h	0	741	367	584	511	0				490	0	218
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	20.8	23.8	37.4	0.0	0.0				15.2	0.0	15.2
Cycle Q Clear(g_c), s	0.0	20.8	23.8	37.4	0.0	0.0				15.2	0.0	15.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1216	542	608	1348	0				727	0	324
V/C Ratio(X)	0.00	0.61	0.68	0.96	0.38	0.00				0.67	0.00	0.67
Avail Cap(c_a), veh/h	0	1216	542	735	1348	0				727	0	324
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.65	0.65	0.52	0.52	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	32.8	33.8	25.0	0.0	0.0				44.1	0.0	44.1
Incr Delay (d2), s/veh	0.0	1.5	4.4	14.2	0.4	0.0				4.9	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	9.2	9.8	14.7	0.2	0.0				7.2	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.3	38.2	39.2	0.4	0.0				49.0	0.0	54.8
LnGrp LOS	A	C	D	D	A	A				D	A	D
Approach Vol, veh/h		1108			1095						708	
Approach Delay, s/veh		35.6			21.1						50.8	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	45.4	45.6		29.0		91.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	49.5	32.5		24.5		86.5						
Max Q Clear Time (g_c+I1), s	39.4	25.8		17.2		2.0						
Green Ext Time (p_c), s	1.5	3.5		1.7		3.8						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.8								
HCM 6th LOS				C								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

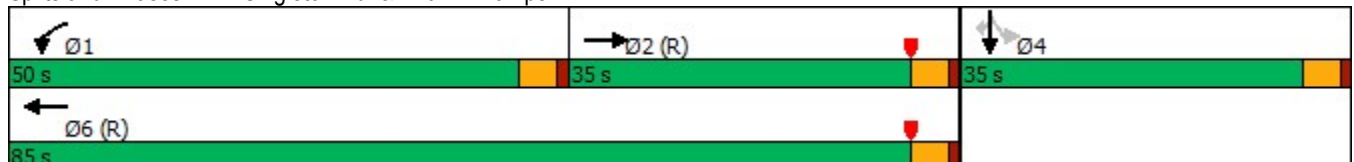


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	→	↶	↷	↓	↷
Traffic Volume (vph)	674	531	465	0	298
Future Volume (vph)	674	531	465	0	298
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	35.0	50.0	85.0	35.0	35.0
Total Split (%)	29.2%	41.7%	70.8%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	33.3	42.7	80.5	30.5	30.5
Actuated g/C Ratio	0.28	0.36	0.67	0.25	0.25
v/c Ratio	2.18	0.93	0.41	0.82	0.52
Control Delay	561.9	52.0	10.2	57.6	8.6
Queue Delay	0.0	0.5	0.8	0.0	0.0
Total Delay	561.9	52.5	11.0	57.6	8.6
LOS	F	D	B	E	A
Approach Delay	561.9		33.2	35.2	
Approach LOS	F		C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.18  
 Intersection Signal Delay: 234.4  
 Intersection Capacity Utilization 147.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↖						↖	↖
Traffic Volume (veh/h)	0	674	334	531	465	0	0	0	0	353	0	298
Future Volume (veh/h)	0	674	334	531	465	0	0	0	0	353	0	298
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	741	367	584	511	0				388	0	327
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	347	172	605	1255	0				453	0	403
Arrive On Green	0.00	0.29	0.29	0.57	1.00	0.00				0.25	0.00	0.25
Sat Flow, veh/h	0	1180	585	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1108	584	511	0				388	0	327
Grp Sat Flow(s),veh/h/ln	0	0	1765	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	35.2	37.6	0.0	0.0				24.9	0.0	23.3
Cycle Q Clear(g_c), s	0.0	0.0	35.2	37.6	0.0	0.0				24.9	0.0	23.3
Prop In Lane	0.00		0.33	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	518	605	1255	0				453	0	403
V/C Ratio(X)	0.00	0.00	2.14	0.97	0.41	0.00				0.86	0.00	0.81
Avail Cap(c_a), veh/h	0	0	518	675	1255	0				453	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	42.4	25.3	0.0	0.0				42.7	0.0	42.1
Incr Delay (d2), s/veh	0.0	0.0	518.4	4.5	0.1	0.0				18.5	0.0	16.2
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	0.0	89.8	13.1	0.0	0.0				13.2	0.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	560.8	29.8	0.1	0.0				61.2	0.0	58.2
LnGrp LOS	A	A	F	C	A	A				E	A	E
Approach Vol, veh/h		1108			1095						715	
Approach Delay, s/veh		560.8			15.9						59.8	
Approach LOS		F			B						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	45.3	39.7		35.0		85.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	45.5	30.5		30.5		80.5						
Max Q Clear Time (g_c+I1), s	39.6	37.2		26.9		2.0						
Green Ext Time (p_c), s	1.1	0.0		1.3		3.8						

Intersection Summary

HCM 6th Ctrl Delay	233.6
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

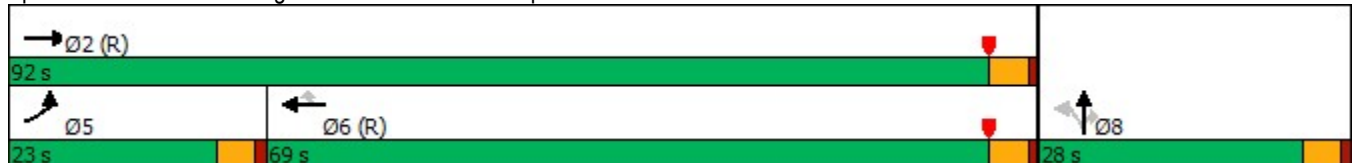


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶↶	↶	↶	↷	↶	↶	↷
Traffic Volume (vph)	374	654	762	667	235	0	353
Future Volume (vph)	374	654	762	667	235	0	353
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	6			8	
Permitted Phases				6	8		8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	92.0	69.0	69.0	28.0	28.0	28.0
Total Split (%)	19.2%	76.7%	57.5%	57.5%	23.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	17.5	89.8	67.8	67.8	21.2	21.2	21.2
Actuated g/C Ratio	0.15	0.75	0.56	0.56	0.18	0.18	0.18
v/c Ratio	0.81	0.50	0.78	0.61	0.81	0.36	0.36
Control Delay	44.7	16.7	22.2	5.6	67.3	2.0	2.0
Queue Delay	0.0	0.8	0.9	0.2	0.0	0.0	0.0
Total Delay	44.7	17.5	23.1	5.8	67.3	2.0	2.0
LOS	D	B	C	A	E	A	A
Approach Delay		27.4	15.0			28.1	
Approach LOS		C	B			C	

Intersection Summary




















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 21.7  
 Intersection Capacity Utilization 76.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	654	0	0	762	667	235	0	353	0	0	0
Future Volume (veh/h)	374	654	0	0	762	667	235	0	353	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	402	703	0	0	819	717	253	0	380			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	457	1422	0	0	1105	936	293	0	522			
Arrive On Green	0.26	1.00	0.00	0.00	1.00	1.00	0.16	0.00	0.16			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	402	703	0	0	819	717	253	0	380			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	13.4	0.0	0.0	0.0	0.0	0.0	16.6	0.0	13.7			
Cycle Q Clear(g_c), s	13.4	0.0	0.0	0.0	0.0	0.0	16.6	0.0	13.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	457	1422	0	0	1105	936	293	0	522			
V/C Ratio(X)	0.88	0.49	0.00	0.00	0.74	0.77	0.86	0.00	0.73			
Avail Cap(c_a), veh/h	533	1422	0	0	1105	936	349	0	621			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.68	0.68	0.00	0.00	0.63	0.63	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.2	0.0	0.0	0.0	0.0	0.0	48.8	0.0	47.6			
Incr Delay (d2), s/veh	10.2	0.8	0.0	0.0	2.9	3.8	17.2	0.0	3.5			
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	5.6	0.3	0.0	0.0	0.9	1.0	8.8	0.0	5.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	0.8	0.0	0.0	2.9	3.8	66.0	0.0	51.1			
LnGrp LOS	D	A	A	A	A	A	E	A	D			
Approach Vol, veh/h		1105			1536			633				
Approach Delay, s/veh		20.0			3.3			57.0				
Approach LOS		B			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		95.7			20.4	75.4		24.3				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		87.5			18.5	64.5		23.5				
Max Q Clear Time (g_c+I1), s		2.0			15.4	2.0		18.6				
Green Ext Time (p_c), s		6.1			0.5	13.4		1.2				

Intersection Summary

HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

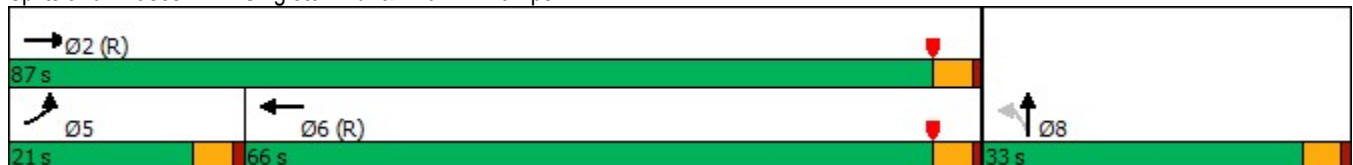


Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	374	654	762	0
Future Volume (vph)	374	654	762	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	21.0	87.0	66.0	33.0
Total Split (%)	17.5%	72.5%	55.0%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	16.5	82.5	61.5	28.5
Actuated g/C Ratio	0.14	0.69	0.51	0.24
v/c Ratio	1.65	0.55	1.67	1.43
Control Delay	323.8	22.0	330.4	237.7
Queue Delay	0.0	6.7	0.3	0.0
Total Delay	323.8	28.7	330.7	237.7
LOS	F	C	F	F
Approach Delay		136.1	330.7	237.7
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.67	
Intersection Signal Delay: 247.0	Intersection LOS: F
Intersection Capacity Utilization 147.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps





HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	654	0	0	762	667	235	0	353	0	0	0
Future Volume (veh/h)	374	654	0	0	762	667	235	0	353	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	402	703	0	0	819	717	253	0	380			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	245	1286	0	0	471	413	157	0	236			
Arrive On Green	0.28	1.00	0.00	0.00	0.51	0.51	0.24	0.00	0.24			
Sat Flow, veh/h	1781	1870	0	0	920	805	663	0	995			
Grp Volume(v), veh/h	402	703	0	0	0	1536	633	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1725	1658	0	0			
Q Serve(g_s), s	16.5	0.0	0.0	0.0	0.0	61.5	28.5	0.0	0.0			
Cycle Q Clear(g_c), s	16.5	0.0	0.0	0.0	0.0	61.5	28.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.47	0.40		0.60			
Lane Grp Cap(c), veh/h	245	1286	0	0	0	884	394	0	0			
V/C Ratio(X)	1.64	0.55	0.00	0.00	0.00	1.74	1.61	0.00	0.00			
Avail Cap(c_a), veh/h	245	1286	0	0	0	884	394	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.5	0.0	0.0	0.0	0.0	29.3	45.8	0.0	0.0			
Incr Delay (d2), s/veh	290.3	0.2	0.0	0.0	0.0	336.4	285.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	26.0	0.1	0.0	0.0	0.0	106.8	42.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	333.8	0.2	0.0	0.0	0.0	365.6	330.7	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1105			1536			633				
Approach Delay, s/veh		121.5			365.6			330.7				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.0			21.0	66.0		33.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		82.5			16.5	61.5		28.5				
Max Q Clear Time (g_c+I1), s		2.0			18.5	63.5		30.5				
Green Ext Time (p_c), s		6.1			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					276.5							
HCM 6th LOS					F							

Timings

IY (2028) w/ Scenario 2 AM Peak Hour

3: Calimesa Bl. & Singleton Rd.

With Additional Improvements (Scenario 2)

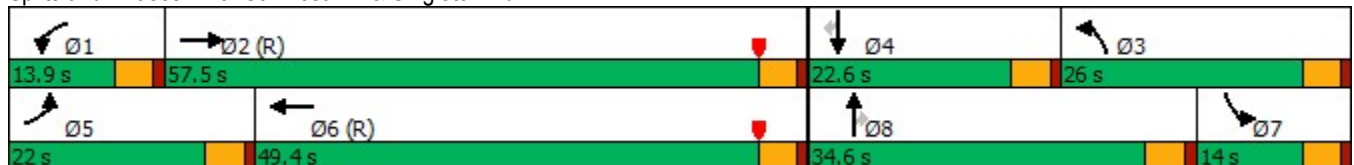


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕	↖	↕	↖↗	↕	↖	↖	↕	↖
Traffic Volume (vph)	171	462	52	807	441	285	172	75	45	182
Future Volume (vph)	171	462	52	807	441	285	172	75	45	182
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.0	57.5	13.9	49.4	26.0	34.6	34.6	14.0	22.6	22.6
Total Split (%)	18.3%	47.9%	11.6%	41.2%	21.7%	28.8%	28.8%	11.7%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	16.0	61.1	8.3	51.3	23.1	27.5	27.5	9.4	11.6	11.6
Actuated g/C Ratio	0.13	0.51	0.07	0.43	0.19	0.23	0.23	0.08	0.10	0.10
v/c Ratio	0.78	0.50	0.46	0.73	0.72	0.72	0.37	0.58	0.27	0.59
Control Delay	62.2	17.8	60.4	29.8	42.8	54.2	10.9	70.3	53.0	14.5
Queue Delay	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Delay	62.2	17.9	60.4	29.9	42.9	54.2	10.9	70.3	53.0	14.5
LOS	E	B	E	C	D	D	B	E	D	B
Approach Delay		25.4		31.4		40.4			34.1	
Approach LOS		C		C		D			C	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 32.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.1%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	462	375	52	807	202	441	285	172	75	45	182
Future Volume (veh/h)	171	462	375	52	807	202	441	285	172	75	45	182
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	184	497	403	56	868	217	474	306	185	81	48	196
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1040	843	73	1353	338	533	348	295	116	182	154
Arrive On Green	0.20	0.93	0.93	0.01	0.16	0.16	0.26	0.31	0.31	0.07	0.10	0.10
Sat Flow, veh/h	1781	1865	1511	1781	2817	704	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	184	474	426	56	547	538	474	306	185	81	48	196
Grp Sat Flow(s),veh/h/ln	1781	1777	1598	1781	1777	1744	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	12.0	4.0	4.0	3.8	34.6	34.7	15.8	18.6	10.3	5.3	2.9	9.2
Cycle Q Clear(g_c), s	12.0	4.0	4.0	3.8	34.6	34.7	15.8	18.6	10.3	5.3	2.9	9.2
Prop In Lane	1.00		0.95	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	991	891	73	854	838	533	348	295	116	182	154
V/C Ratio(X)	0.88	0.48	0.48	0.77	0.64	0.64	0.89	0.88	0.63	0.70	0.26	1.27
Avail Cap(c_a), veh/h	260	991	891	140	854	838	619	469	398	141	282	239
HCM Platoon Ratio	1.67	1.67	1.67	0.33	0.33	0.33	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(l)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	2.0	2.0	58.6	40.8	40.8	43.5	40.1	27.8	54.9	50.2	33.5
Incr Delay (d2), s/veh	21.0	1.5	1.6	15.7	3.7	3.8	13.5	13.6	2.2	10.9	0.8	153.5
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	6.1	1.3	1.2	2.0	17.4	17.1	7.1	9.0	3.7	2.8	1.4	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.3	3.4	3.6	74.3	44.5	44.6	57.0	53.7	30.0	65.8	51.0	187.0
LnGrp LOS	E	A	A	E	D	D	E	D	C	E	D	F
Approach Vol, veh/h		1084			1141			965			325	
Approach Delay, s/veh		14.5			46.0			50.8			136.7	
Approach LOS		B			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	71.4	23.0	16.2	18.7	62.2	12.3	26.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.4	53.0	21.5	18.1	17.5	44.9	9.5	30.1				
Max Q Clear Time (g_c+I1), s	5.8	6.0	17.8	11.2	14.0	36.7	7.3	20.6				
Green Ext Time (p_c), s	0.0	7.5	0.7	0.5	0.2	4.4	0.0	1.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			46.0									
HCM 6th LOS			D									

Timings  
4: Beckwith Av. & Singleton Rd.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

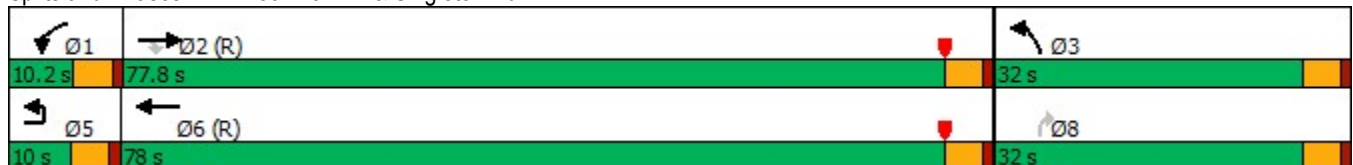


Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↖	↗
Traffic Volume (vph)	30	584	81	20	819	224	52
Future Volume (vph)	30	584	81	20	819	224	52
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	3	
Permitted Phases			2				8
Detector Phase	5	2	2	1	6	3	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	10.0	77.8	77.8	10.2	78.0	32.0	32.0
Total Split (%)	8.3%	64.8%	64.8%	8.5%	65.0%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	5.5	79.4	79.4	5.7	77.5	27.5	27.5
Actuated g/C Ratio	0.05	0.66	0.66	0.05	0.65	0.23	0.23
v/c Ratio	0.41	0.48	0.08	0.24	0.69	0.57	0.13
Control Delay	63.5	18.1	7.9	62.2	18.5	47.2	10.6
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	18.7	7.9	62.2	18.5	47.2	10.6
LOS	E	B	A	E	B	D	B
Approach Delay		19.5			19.5	40.4	
Approach LOS		B			B	D	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 86.3 (72%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	30	584	81	20	819	224	52
Future Volume (veh/h)	30	584	81	20	819	224	52
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		596	83	20	836	229	53
Peak Hour Factor		0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1193	1011	36	1301	408	363
Arrive On Green		0.43	0.43	0.02	0.70	0.23	0.23
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		596	83	20	836	229	53
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		27.8	3.7	1.3	29.5	13.6	3.2
Cycle Q Clear(g_c), s		27.8	3.7	1.3	29.5	13.6	3.2
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1193	1011	36	1301	408	363
V/C Ratio(X)		0.50	0.08	0.55	0.64	0.56	0.15
Avail Cap(c_a), veh/h		1193	1011	85	1301	408	363
HCM Platoon Ratio		0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		20.4	13.5	58.2	10.0	40.9	36.9
Incr Delay (d2), s/veh		1.5	0.2	12.6	2.4	5.5	0.8
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		13.5	1.3	0.7	11.8	6.6	1.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		21.9	13.7	70.8	12.5	46.4	37.7
LnGrp LOS		C	B	E	B	D	D
Approach Vol, veh/h		679			856	282	
Approach Delay, s/veh		20.9			13.8	44.8	
Approach LOS		C			B	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	6.9	81.1			88.0	32.0	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	5.7	73.3			73.5	27.5	
Max Q Clear Time (g_c+I1), s	3.3	29.8			31.5	15.6	
Green Ext Time (p_c), s	0.0	4.9			7.9	0.6	

Intersection Summary

HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Timings  
6: Calimesa Bl. & 5th St.

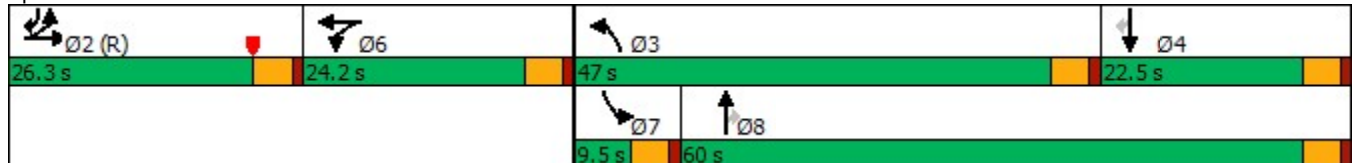
IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	248	289	35	450	1009	548	213	25	186	452
Future Volume (vph)	248	289	35	450	1009	548	213	25	186	452
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	26.3	26.3	24.2	24.2	47.0	60.0	60.0	9.5	22.5	26.3
Total Split (%)	21.9%	21.9%	20.2%	20.2%	39.2%	50.0%	50.0%	7.9%	18.8%	21.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	21.8	21.8	19.7	19.7	42.5	59.3	59.3	5.0	18.0	44.3
Actuated g/C Ratio	0.18	0.18	0.16	0.16	0.35	0.49	0.49	0.04	0.15	0.37
v/c Ratio	0.79	0.75	0.14	0.96	0.98	0.70	0.30	0.40	0.78	0.83
Control Delay	65.5	50.5	44.5	77.9	52.0	32.0	14.8	72.0	69.4	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0
Total Delay	65.5	50.5	44.5	77.9	52.0	33.7	14.8	72.0	69.4	40.3
LOS	E	D	D	E	D	C	B	E	E	D
Approach Delay		55.5		75.6		41.9			49.7	
Approach LOS		E		E		D			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 50.5  
 Intersection Capacity Utilization 81.1%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service D

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	289	109	35	450	21	1009	548	213	25	186	452
Future Volume (veh/h)	248	289	109	35	450	21	1009	548	213	25	186	452
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	234	422	69	41	529	13	1187	645	133	29	219	267
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	572	93	292	580	14	1224	895	758	46	281	526
Arrive On Green	0.18	0.18	0.18	0.16	0.16	0.16	0.35	0.48	0.48	0.03	0.15	0.15
Sat Flow, veh/h	1781	3139	510	1781	3545	87	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	234	250	241	41	265	277	1187	645	133	29	219	267
Grp Sat Flow(s),veh/h/ln	1781	1870	1779	1781	1777	1855	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	14.8	15.2	15.4	2.4	17.6	17.6	40.5	33.0	5.7	1.9	13.5	16.2
Cycle Q Clear(g_c), s	14.8	15.2	15.4	2.4	17.6	17.6	40.5	33.0	5.7	1.9	13.5	16.2
Prop In Lane	1.00		0.29	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	341	324	292	291	304	1224	895	758	46	281	526
V/C Ratio(X)	0.72	0.73	0.74	0.14	0.91	0.91	0.97	0.72	0.18	0.63	0.78	0.51
Avail Cap(c_a), veh/h	324	341	324	292	292	304	1224	895	758	74	281	526
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	46.2	46.3	46.4	42.9	49.3	49.3	38.1	24.9	17.8	57.9	49.1	32.2
Incr Delay (d2), s/veh	13.0	13.2	14.3	0.2	30.6	30.0	18.9	5.0	0.5	13.4	19.1	3.5
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	7.7	8.3	8.1	1.1	10.3	10.7	19.8	15.3	2.2	1.0	7.7	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	59.5	60.8	43.2	79.9	79.3	57.0	29.9	18.3	71.2	68.2	35.7
LnGrp LOS	E	E	E	D	E	E	E	C	B	E	E	D
Approach Vol, veh/h		725			583			1965			515	
Approach Delay, s/veh		59.8			77.1			45.5			51.5	
Approach LOS		E			E			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.3	47.0	22.5		24.2	7.6	61.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.8	42.5	18.0		19.7	5.0	55.5				
Max Q Clear Time (g_c+I1), s		17.4	42.5	18.2		19.6	3.9	35.0				
Green Ext Time (p_c), s		1.6	0.0	0.0		0.0	0.0	4.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				53.9								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
7: Roberts Rd. & Cherry Valley Bl.

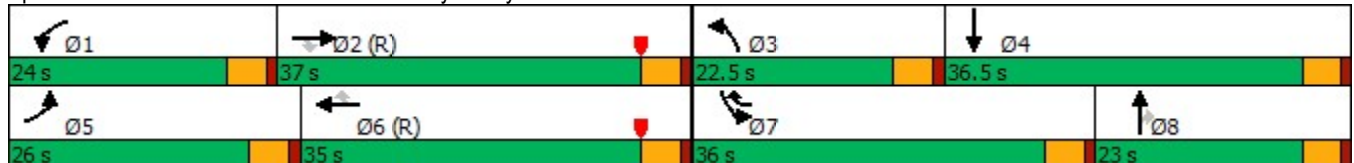
IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	340	507	23	135	456	375	12	25	128	534	23
Future Volume (vph)	340	507	23	135	456	375	12	25	128	534	23
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	37.0	37.0	24.0	35.0	36.0	22.5	23.0	23.0	36.0	36.5
Total Split (%)	21.7%	30.8%	30.8%	20.0%	29.2%	30.0%	18.8%	19.2%	19.2%	30.0%	30.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	18.0	37.0	37.0	15.0	34.0	70.0	18.0	18.5	18.5	31.5	32.0
Actuated g/C Ratio	0.15	0.31	0.31	0.12	0.28	0.58	0.15	0.15	0.15	0.26	0.27
v/c Ratio	0.73	0.51	0.04	0.67	0.50	0.39	0.05	0.09	0.39	0.65	0.51
Control Delay	57.1	36.8	0.1	66.2	38.7	5.6	44.4	44.6	10.6	43.4	8.3
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	57.1	36.8	0.1	66.2	38.7	5.6	44.4	44.6	10.6	43.4	8.3
LOS	E	D	A	E	D	A	D	D	B	D	A
Approach Delay		43.8			29.7			18.1			30.6
Approach LOS		D			C			B			C

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 33.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 55.5%  
 ICU Level of Service B  
 Analysis Period (min) 15

























Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	507	23	135	456	375	12	25	128	534	23	283
Future Volume (veh/h)	340	507	23	135	456	375	12	25	128	534	23	283
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	374	557	25	148	501	412	13	27	141	587	25	311
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	445	1187	529	177	1082	899	267	288	244	907	32	396
Arrive On Green	0.13	0.33	0.33	0.10	0.30	0.30	0.15	0.15	0.15	0.26	0.27	0.27
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	119	1484
Grp Volume(v), veh/h	374	557	25	148	501	412	13	27	141	587	0	336
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1603
Q Serve(g_s), s	12.7	14.9	1.3	9.8	13.7	18.2	0.7	1.5	9.9	18.1	0.0	23.3
Cycle Q Clear(g_c), s	12.7	14.9	1.3	9.8	13.7	18.2	0.7	1.5	9.9	18.1	0.0	23.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	445	1187	529	177	1082	899	267	288	244	907	0	428
V/C Ratio(X)	0.84	0.47	0.05	0.84	0.46	0.46	0.05	0.09	0.58	0.65	0.00	0.79
Avail Cap(c_a), veh/h	619	1187	529	289	1082	899	267	288	244	907	0	428
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	51.1	31.6	27.0	53.1	33.8	15.2	43.7	43.6	47.1	39.3	0.0	40.8
Incr Delay (d2), s/veh	7.3	1.3	0.2	10.7	1.4	1.7	0.3	0.6	9.6	3.6	0.0	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	6.5	0.5	4.9	6.1	6.8	0.4	0.7	4.6	8.1	0.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	32.9	27.2	63.7	35.2	16.9	44.0	44.2	56.7	42.9	0.0	54.4
LnGrp LOS	E	C	C	E	D	B	D	D	E	D	A	D
Approach Vol, veh/h		956			1061			181			923	
Approach Delay, s/veh		42.7			32.1			53.9			47.1	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	44.6	22.5	36.5	20.0	41.0	36.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.5	32.5	18.0	32.0	21.5	30.5	31.5	18.5				
Max Q Clear Time (g_c+I1), s	11.8	16.9	2.7	25.3	14.7	20.2	20.1	11.9				
Green Ext Time (p_c), s	0.2	3.3	0.0	1.2	0.8	3.5	1.8	0.3				

Intersection Summary

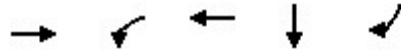
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

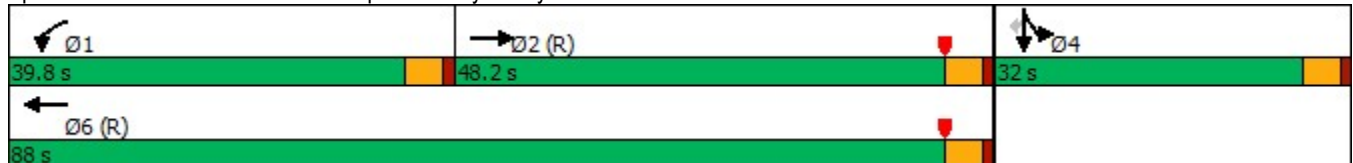


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↖	↑↑	↖	↖↖
Traffic Volume (vph)	967	464	518	0	446
Future Volume (vph)	967	464	518	0	446
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	48.2	39.8	88.0	32.0	32.0
Total Split (%)	40.2%	33.2%	73.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Min	Max	Max
Act Effct Green (s)	44.1	34.9	83.5	27.5	27.5
Actuated g/C Ratio	0.37	0.29	0.70	0.23	0.23
v/c Ratio	0.98	0.97	0.23	0.95	0.48
Control Delay	57.0	86.7	8.4	79.5	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	86.7	8.4	79.5	5.0
LOS	E	F	A	E	A
Approach Delay	57.0		45.4	38.1	
Approach LOS	E		D	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 48.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 89.9%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↖	↖↖
Traffic Volume (veh/h)	0	967	203	464	518	0	0	0	0	357	0	446
Future Volume (veh/h)	0	967	203	464	518	0	0	0	0	357	0	446
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	1040	218	499	557	0				384	0	480
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1083	226	513	2473	0				408	0	639
Arrive On Green	0.00	0.37	0.37	0.58	1.00	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	3019	611	1781	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	630	628	499	557	0				384	0	480
Grp Sat Flow(s),veh/h/ln	0	1777	1760	1781	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	41.6	41.9	32.4	0.0	0.0				25.4	0.0	19.2
Cycle Q Clear(g_c), s	0.0	41.6	41.9	32.4	0.0	0.0				25.4	0.0	19.2
Prop In Lane	0.00		0.35	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	658	652	513	2473	0				408	0	639
V/C Ratio(X)	0.00	0.96	0.96	0.97	0.23	0.00				0.94	0.00	0.75
Avail Cap(c_a), veh/h	0	658	652	524	2473	0				408	0	639
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	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	36.9	37.0	25.0	0.0	0.0				45.4	0.0	43.1
Incr Delay (d2), s/veh	0.0	26.2	27.3	28.0	0.2	0.0				31.9	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	22.3	22.4	13.0	0.1	0.0				14.8	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	63.1	64.3	53.0	0.2	0.0				77.3	0.0	51.0
LnGrp LOS	A	E	E	D	A	A				E	A	D
Approach Vol, veh/h		1258			1056						864	
Approach Delay, s/veh		63.7			25.1						62.7	
Approach LOS		E			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	39.1	48.9		32.0		88.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	35.3	43.7		27.5		83.5						
Max Q Clear Time (g_c+I1), s	34.4	43.9		27.4		2.0						
Green Ext Time (p_c), s	0.2	0.0		0.0		4.2						

Intersection Summary

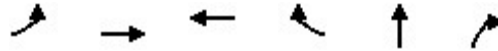
HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

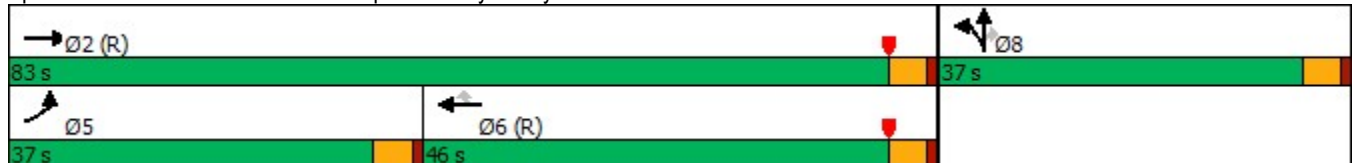


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	686	638	792	613	11	503
Future Volume (vph)	686	638	792	613	11	503
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	37.0	83.0	46.0	46.0	37.0	37.0
Total Split (%)	30.8%	69.2%	38.3%	38.3%	30.8%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Max	C-Max	None	None
Act Effct Green (s)	29.9	85.6	51.2	51.2	25.4	25.4
Actuated g/C Ratio	0.25	0.71	0.43	0.43	0.21	0.21
v/c Ratio	0.86	0.52	0.56	0.62	0.57	0.88
Control Delay	52.0	12.4	25.9	8.8	47.3	37.7
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay	52.0	12.8	25.9	8.9	47.3	37.7
LOS	D	B	C	A	D	D
Approach Delay		33.1	18.5		40.4	
Approach LOS		C	B		D	

Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 28.6  
 Intersection Capacity Utilization 89.9%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



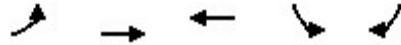
HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 							
Traffic Volume (veh/h)	686	638	0	0	792	613	189	11	503	0	0	0
Future Volume (veh/h)	686	638	0	0	792	613	189	11	503	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	738	686	0	0	852	659	203	12	541			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	805	1224	0	0	1363	608	457	27	429			
Arrive On Green	0.39	1.00	0.00	0.00	0.77	0.77	0.27	0.27	0.27			
Sat Flow, veh/h	3456	1870	0	0	3647	1585	1686	100	1585			
Grp Volume(v), veh/h	738	686	0	0	852	659	215	0	541			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1585	1786	0	1585			
Q Serve(g_s), s	24.3	0.0	0.0	0.0	12.9	46.0	12.0	0.0	32.5			
Cycle Q Clear(g_c), s	24.3	0.0	0.0	0.0	12.9	46.0	12.0	0.0	32.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	805	1224	0	0	1363	608	484	0	429			
V/C Ratio(X)	0.92	0.56	0.00	0.00	0.62	1.08	0.44	0.00	1.26			
Avail Cap(c_a), veh/h	936	1224	0	0	1363	608	484	0	429			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.13	0.13	0.00	0.00	0.35	0.35	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.5	0.0	0.0	0.0	10.1	14.0	36.3	0.0	43.7			
Incr Delay (d2), s/veh	2.0	0.2	0.0	0.0	0.8	48.1	0.6	0.0	134.8			
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	8.9	0.1	0.0	0.0	3.2	12.8	5.3	0.0	28.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.2	0.0	0.0	10.9	62.1	36.9	0.0	178.5			
LnGrp LOS	D	A	A	A	B	F	D	A	F			
Approach Vol, veh/h		1424			1511			756				
Approach Delay, s/veh		19.6			33.2			138.2				
Approach LOS		B			C			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		83.0			32.5	50.5		37.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		78.5			32.5	41.5		32.5				
Max Q Clear Time (g_c+I1), s		2.0			26.3	48.0		34.5				
Green Ext Time (p_c), s		5.5			1.6	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					49.5							
HCM 6th LOS					D							

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

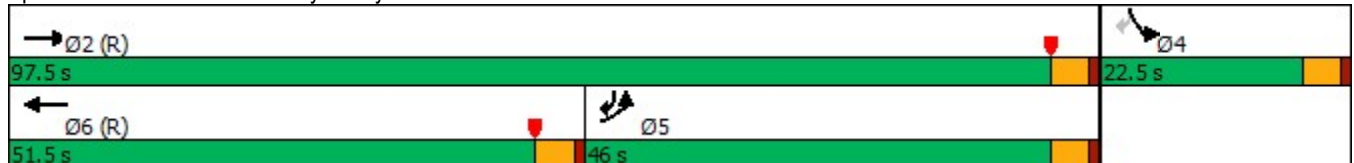


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑	↕	↘	↗
Traffic Volume (vph)	519	623	994	90	412
Future Volume (vph)	519	623	994	90	412
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	46.0	97.5	51.5	22.5	46.0
Total Split (%)	38.3%	81.3%	42.9%	18.8%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	41.5	93.0	47.0	18.0	64.0
Actuated g/C Ratio	0.35	0.78	0.39	0.15	0.53
v/c Ratio	0.99	0.50	0.99	0.40	0.56
Control Delay	66.2	6.6	59.0	53.6	22.6
Queue Delay	0.0	0.4	0.0	0.0	0.0
Total Delay	66.2	7.1	59.0	53.6	22.6
LOS	E	A	E	D	C
Approach Delay		33.9	59.0	28.2	
Approach LOS		C	E	C	

Intersection Summary

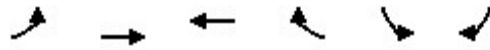
Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 43.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 78.0%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	519	623	994	174	90	412
Future Volume (veh/h)	519	623	994	174	90	412
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	603	724	1156	202	105	479
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	616	1450	1185	206	267	786
Arrive On Green	0.69	1.00	0.39	0.39	0.15	0.15
Sat Flow, veh/h	1781	1870	3120	526	1781	1585
Grp Volume(v), veh/h	603	724	677	681	105	479
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1776	1781	1585
Q Serve(g_s), s	38.8	0.0	44.9	45.5	6.4	0.0
Cycle Q Clear(g_c), s	38.8	0.0	44.9	45.5	6.4	0.0
Prop In Lane	1.00			0.30	1.00	1.00
Lane Grp Cap(c), veh/h	616	1450	696	695	267	786
V/C Ratio(X)	0.98	0.50	0.97	0.98	0.39	0.61
Avail Cap(c_a), veh/h	616	1450	696	695	267	786
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.68	0.68	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	35.9	36.0	46.1	21.9
Incr Delay (d2), s/veh	24.7	0.8	27.9	29.6	4.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	0.3	24.1	24.7	3.1	16.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.8	0.8	63.8	65.6	50.4	25.4
LnGrp LOS	D	A	E	E	D	C
Approach Vol, veh/h		1327	1358		584	
Approach Delay, s/veh		19.9	64.7		29.9	
Approach LOS		B	E		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.5		22.5	46.0	51.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		93.0		18.0	41.5	47.0
Max Q Clear Time (g_c+I1), s		2.0		8.4	40.8	47.5
Green Ext Time (p_c), s		6.0		1.6	0.2	0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			40.3			
HCM 6th LOS			D			



Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)



Lane Group	EBL	NBT	SBT
Lane Configurations	↔	↑↑	↑
Traffic Volume (vph)	343	1361	267
Future Volume (vph)	343	1361	267
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	23.0	37.0	37.0
Total Split (%)	38.3%	61.7%	61.7%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	16.5	34.5	34.5
Actuated g/C Ratio	0.28	0.58	0.58
v/c Ratio	0.79	0.74	0.28
Control Delay	32.6	12.9	4.7
Queue Delay	0.4	0.2	0.0
Total Delay	33.0	13.1	4.7
LOS	C	B	A
Approach Delay	33.0	13.1	4.7
Approach LOS	C	B	A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 15.5  
 Intersection Capacity Utilization 64.2%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service C

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp





HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑	
Traffic Volume (veh/h)	343	2	0	1361	267	0
Future Volume (veh/h)	343	2	0	1361	267	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	381	2	0	1512	297	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	438	2	0	2139	1126	0
Arrive On Green	0.25	0.25	0.00	0.60	0.60	0.00
Sat Flow, veh/h	1766	9	0	3741	1870	0
Grp Volume(v), veh/h	384	0	0	1512	297	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1777	1870	0
Q Serve(g_s), s	12.4	0.0	0.0	17.7	4.5	0.0
Cycle Q Clear(g_c), s	12.4	0.0	0.0	17.7	4.5	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	442	0	0	2139	1126	0
V/C Ratio(X)	0.87	0.00	0.00	0.71	0.26	0.00
Avail Cap(c_a), veh/h	549	0	0	2139	1126	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.6	0.0	0.0	8.3	5.7	0.0
Incr Delay (d2), s/veh	11.9	0.0	0.0	2.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	0.0	5.2	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.5	0.0	0.0	10.3	6.2	0.0
LnGrp LOS	C	A	A	B	A	A
Approach Vol, veh/h	384			1512	297	
Approach Delay, s/veh	33.5			10.3	6.2	
Approach LOS	C			B	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		40.6		19.4		40.6
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.5		18.5		32.5
Max Q Clear Time (g_c+I1), s		19.7		14.4		6.5
Green Ext Time (p_c), s		8.4		0.5		1.7

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

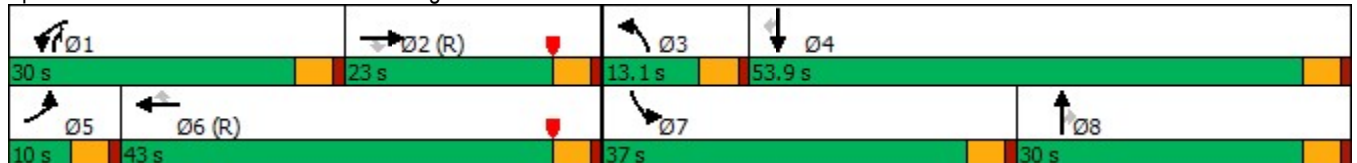
IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	405	88	166	310	211	41	41	106	483	61	9
Future Volume (vph)	17	405	88	166	310	211	41	41	106	483	61	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	10.0	23.0	23.0	30.0	43.0	43.0	13.1	30.0	30.0	37.0	53.9	53.9
Total Split (%)	8.3%	19.2%	19.2%	25.0%	35.8%	35.8%	10.9%	25.0%	25.0%	30.8%	44.9%	44.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	6.8	43.3	43.3	17.5	60.3	60.3	7.7	11.6	30.7	32.5	35.5	35.5
Actuated g/C Ratio	0.06	0.36	0.36	0.15	0.50	0.50	0.06	0.10	0.26	0.27	0.30	0.30
v/c Ratio	0.18	0.34	0.14	0.70	0.19	0.25	0.40	0.13	0.24	1.10	0.06	0.02
Control Delay	57.5	31.5	0.4	55.7	20.3	4.7	64.2	49.2	9.2	111.2	29.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	31.5	0.4	55.7	20.3	4.7	64.2	49.2	9.2	111.2	29.5	0.1
LOS	E	C	A	E	C	A	E	D	A	F	C	A
Approach Delay		27.0			24.1			30.0			100.4	
Approach LOS		C			C			C			F	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.10  
 Intersection Signal Delay: 47.2  
 Intersection Capacity Utilization 65.1%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service C

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

IY (2028) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	405	88	166	310	211	41	41	106	483	61	9
Future Volume (veh/h)	17	405	88	166	310	211	41	41	106	483	61	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	440	96	180	337	229	45	45	115	525	66	10
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	33	1345	600	209	1695	756	58	296	318	482	1143	510
Arrive On Green	0.02	0.38	0.38	0.20	0.80	0.80	0.03	0.08	0.08	0.27	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	18	440	96	180	337	229	45	45	115	525	66	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.2	10.5	4.8	11.7	2.8	4.6	3.0	1.4	7.5	32.5	1.5	0.5
Cycle Q Clear(g_c), s	1.2	10.5	4.8	11.7	2.8	4.6	3.0	1.4	7.5	32.5	1.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	1345	600	209	1695	756	58	296	318	482	1143	510
V/C Ratio(X)	0.54	0.33	0.16	0.86	0.20	0.30	0.78	0.15	0.36	1.09	0.06	0.02
Avail Cap(c_a), veh/h	82	1345	600	379	1695	756	128	755	523	482	1463	653
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	26.4	24.7	47.3	6.7	6.9	57.6	51.1	41.3	43.7	28.1	27.8
Incr Delay (d2), s/veh	12.7	0.6	0.6	9.3	0.2	0.9	19.5	0.2	0.7	67.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.6	1.9	5.3	1.0	1.6	1.7	0.6	3.0	23.1	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.1	27.1	25.2	56.7	6.9	7.8	77.1	51.3	42.0	110.7	28.2	27.8
LnGrp LOS	E	C	C	E	A	A	E	D	D	F	C	C
Approach Vol, veh/h		554			746			205			601	
Approach Delay, s/veh		28.2			19.2			51.8			100.3	
Approach LOS		C			B			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	49.9	8.4	43.1	6.8	61.7	37.0	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	18.5	8.6	49.4	5.5	38.5	32.5	25.5				
Max Q Clear Time (g_c+I1), s	13.7	12.5	5.0	3.5	3.2	6.6	34.5	9.5				
Green Ext Time (p_c), s	0.4	1.6	0.0	0.4	0.0	3.2	0.0	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			47.9									
HCM 6th LOS			D									

Timings  
1: Singleton Rd. & I-10 EB Ramps

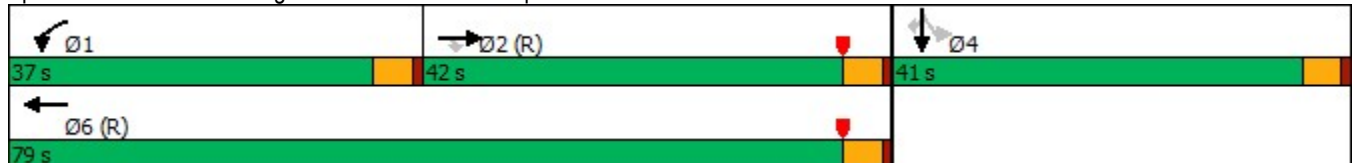
IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

	→	↘	↙	←	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑	↘	↕	↘
Traffic Volume (vph)	887	431	400	856	658	0	577
Future Volume (vph)	887	431	400	856	658	0	577
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	14.5	14.5	14.5
Total Split (s)	42.0	42.0	37.0	79.0	41.0	41.0	41.0
Total Split (%)	35.0%	35.0%	30.8%	65.8%	34.2%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	38.4	38.4	31.6	74.5	36.5	36.5	36.5
Actuated g/C Ratio	0.32	0.32	0.26	0.62	0.30	0.30	0.30
v/c Ratio	0.86	0.74	0.94	0.81	0.92	0.88	0.77
Control Delay	55.3	37.6	60.3	19.1	65.3	54.2	34.9
Queue Delay	0.0	0.0	0.0	4.9	38.1	25.3	0.0
Total Delay	55.3	37.6	60.3	23.9	103.4	79.5	34.9
LOS	E	D	E	C	F	E	C
Approach Delay	49.5			35.5		73.6	
Approach LOS	D			D		E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 52.7  
 Intersection LOS: D  
 Intersection Capacity Utilization 108.8%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

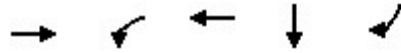


HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

IY (2028) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↖	↕	↗
Traffic Volume (veh/h)	0	887	431	400	856	0	0	0	0	658	0	577
Future Volume (veh/h)	0	887	431	400	856	0	0	0	0	658	0	577
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	975	474	440	941	0				920	0	423
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1160	517	458	1161	0				1084	0	482
Arrive On Green	0.00	0.33	0.33	0.51	1.00	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	3647	1585	1781	1870	0				3563	0	1585
Grp Volume(v), veh/h	0	975	474	440	941	0				920	0	423
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	30.6	34.5	28.5	0.0	0.0				29.1	0.0	30.4
Cycle Q Clear(g_c), s	0.0	30.6	34.5	28.5	0.0	0.0				29.1	0.0	30.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1160	517	458	1161	0				1084	0	482
V/C Ratio(X)	0.00	0.84	0.92	0.96	0.81	0.00				0.85	0.00	0.88
Avail Cap(c_a), veh/h	0	1160	517	482	1161	0				1084	0	482
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.64	0.64	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.5	38.8	28.6	0.0	0.0				39.2	0.0	39.6
Incr Delay (d2), s/veh	0.0	4.9	16.8	5.7	0.6	0.0				8.3	0.0	19.7
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	13.9	15.6	9.8	0.2	0.0				13.8	0.0	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.4	55.6	34.3	0.6	0.0				47.5	0.0	59.3
LnGrp LOS	A	D	E	C	A	A				D	A	E
Approach Vol, veh/h		1449			1381						1343	
Approach Delay, s/veh		46.7			11.3						51.2	
Approach LOS		D			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	35.3	43.7		41.0		79.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	32.5	37.5		36.5		74.5						
Max Q Clear Time (g_c+I1), s	30.5	36.5		32.4		2.0						
Green Ext Time (p_c), s	0.3	0.8		2.2		10.4						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			36.5									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↻	↻	↻	↻	↻
Traffic Volume (vph)	887	400	856	0	577
Future Volume (vph)	887	400	856	0	577
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	36.6	32.8	69.4	50.6	50.6
Total Split (%)	30.5%	27.3%	57.8%	42.2%	42.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	32.1	28.3	64.9	46.1	46.1
Actuated g/C Ratio	0.27	0.24	0.54	0.38	0.38
v/c Ratio	2.95	1.06	0.93	1.01	0.94
Control Delay	901.8	87.7	28.0	73.7	52.7
Queue Delay	0.1	0.0	45.2	34.6	0.0
Total Delay	901.9	87.7	73.2	108.3	52.7
LOS	F	F	E	F	D
Approach Delay	901.9		77.8	82.4	
Approach LOS	F		E	F	

Intersection Summary


















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.95  
 Intersection Signal Delay: 364.5  
 Intersection LOS: F  
 Intersection Capacity Utilization 237.6%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	887	431	400	856	0	0	0	0	658	0	577
Future Volume (veh/h)	0	887	431	400	856	0	0	0	0	658	0	577
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	975	474	440	941	0				723	0	634
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	318	155	420	1012	0				684	0	609
Arrive On Green	0.00	0.27	0.27	0.47	1.00	0.00				0.38	0.00	0.38
Sat Flow, veh/h	0	1189	578	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1449	440	941	0				723	0	634
Grp Sat Flow(s),veh/h/ln	0	0	1766	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	32.1	28.3	0.0	0.0				46.1	0.0	46.1
Cycle Q Clear(g_c), s	0.0	0.0	32.1	28.3	0.0	0.0				46.1	0.0	46.1
Prop In Lane	0.00		0.33	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	472	420	1012	0				684	0	609
V/C Ratio(X)	0.00	0.00	3.07	1.05	0.93	0.00				1.06	0.00	1.04
Avail Cap(c_a), veh/h	0	0	472	420	1012	0				684	0	609
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	44.0	31.7	0.0	0.0				37.0	0.0	37.0
Incr Delay (d2), s/veh	0.0	0.0	935.6	27.9	2.0	0.0				50.3	0.0	47.6
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	0.0	136.7	12.7	0.6	0.0				29.2	0.0	25.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	979.6	59.6	2.0	0.0				87.3	0.0	84.6
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1449			1381						1357	
Approach Delay, s/veh		979.6			20.3						86.0	
Approach LOS		F			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.8	36.6		50.6		69.4						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	28.3	32.1		46.1		64.9						
Max Q Clear Time (g_c+I1), s	30.3	34.1		48.1		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		10.3						

Intersection Summary

HCM 6th Ctrl Delay	373.6
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.



Timings  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

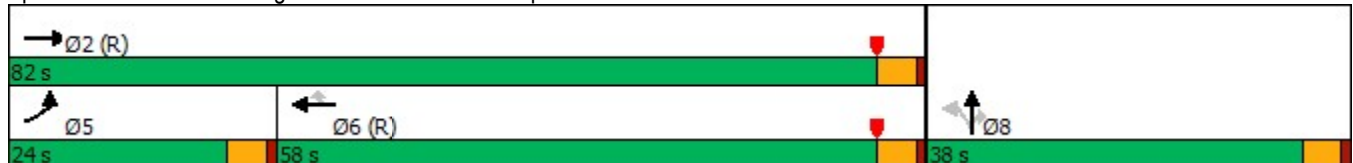


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↗ ↘	↑	↑	↗	↘	↑	↗
Traffic Volume (vph)	529	1017	788	569	470	0	578
Future Volume (vph)	529	1017	788	569	470	0	578
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	6			8	
Permitted Phases				6	8		8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	82.0	58.0	58.0	38.0	38.0	38.0
Total Split (%)	20.0%	68.3%	48.3%	48.3%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	19.5	77.5	53.5	53.5	33.5	33.5	33.5
Actuated g/C Ratio	0.16	0.65	0.45	0.45	0.28	0.28	0.28
v/c Ratio	1.03	0.92	1.03	0.66	1.03	0.63	0.63
Control Delay	75.9	35.7	62.0	7.0	92.3	30.0	30.0
Queue Delay	0.0	44.7	10.9	0.3	0.0	0.2	0.2
Total Delay	75.9	80.4	72.9	7.3	92.3	30.1	30.1
LOS	E	F	E	A	F	C	C
Approach Delay		78.8	45.4			58.0	
Approach LOS		E	D			E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 61.8  
 Intersection Capacity Utilization 108.8%  
 Analysis Period (min) 15  
 Intersection LOS: E  
 ICU Level of Service G





















Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps





HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 											
Traffic Volume (veh/h)	529	1017	0	0	788	569	470	0	578	0	0	0
Future Volume (veh/h)	529	1017	0	0	788	569	470	0	578	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	575	1105	0	0	857	618	511	0	628			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	562	1208	0	0	834	707	497	0	885			
Arrive On Green	0.32	1.00	0.00	0.00	0.89	0.89	0.28	0.00	0.28			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	575	1105	0	0	857	618	511	0	628			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	19.5	0.0	0.0	0.0	53.5	23.0	33.5	0.0	21.4			
Cycle Q Clear(g_c), s	19.5	0.0	0.0	0.0	53.5	23.0	33.5	0.0	21.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	562	1208	0	0	834	707	497	0	885			
V/C Ratio(X)	1.02	0.91	0.00	0.00	1.03	0.87	1.03	0.00	0.71			
Avail Cap(c_a), veh/h	562	1208	0	0	834	707	497	0	885			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.35	0.35	0.00	0.00	0.76	0.76	1.00	0.00	1.00			
Uniform Delay (d), s/veh	40.5	0.0	0.0	0.0	6.5	4.8	43.3	0.0	38.9			
Incr Delay (d2), s/veh	28.8	5.0	0.0	0.0	34.5	11.3	47.6	0.0	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			
%ile BackOfQ(50%),veh/ln	9.2	1.7	0.0	0.0	10.8	4.2	21.1	0.0	8.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.3	5.0	0.0	0.0	41.0	16.1	90.8	0.0	41.5			
LnGrp LOS	F	A	A	A	F	B	F	A	D			
Approach Vol, veh/h		1680			1475			1139				
Approach Delay, s/veh		27.0			30.6			63.7				
Approach LOS		C			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		82.0			24.0	58.0		38.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		77.5			19.5	53.5		33.5				
Max Q Clear Time (g_c+I1), s		2.0			21.5	55.5		35.5				
Green Ext Time (p_c), s		15.2			0.0	0.0		0.0				









Intersection Summary

HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

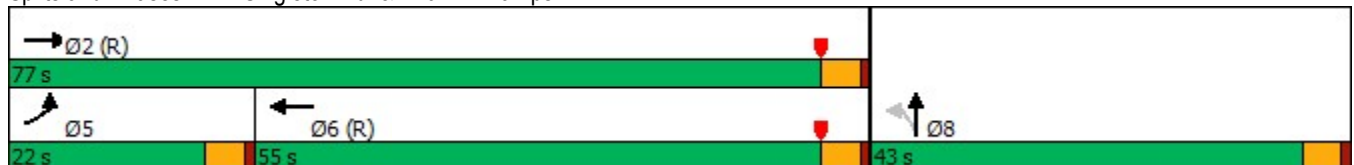
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	529	1017	788	0
Future Volume (vph)	529	1017	788	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	22.0	77.0	55.0	43.0
Total Split (%)	18.3%	64.2%	45.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	17.5	72.5	50.5	38.5
Actuated g/C Ratio	0.15	0.60	0.42	0.32
v/c Ratio	2.23	0.98	1.94	1.97
Control Delay	576.9	40.6	451.9	467.5
Queue Delay	0.0	40.6	0.7	0.0
Total Delay	576.9	81.2	452.6	467.5
LOS	F	F	F	F
Approach Delay		250.9	452.6	467.5
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.23  
 Intersection Signal Delay: 377.6  
 Intersection LOS: F  
 Intersection Capacity Utilization 237.6%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	529	1017	0	0	788	569	470	0	578	0	0	0
Future Volume (veh/h)	529	1017	0	0	788	569	470	0	578	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	575	1105	0	0	857	618	511	0	628			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	260	1130	0	0	425	307	240	0	295			
Arrive On Green	0.29	1.00	0.00	0.00	0.42	0.42	0.32	0.00	0.32			
Sat Flow, veh/h	1781	1870	0	0	1011	729	748	0	919			
Grp Volume(v), veh/h	575	1105	0	0	0	1475	1139	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1739	1667	0	0			
Q Serve(g_s), s	17.5	0.0	0.0	0.0	0.0	50.5	38.5	0.0	0.0			
Cycle Q Clear(g_c), s	17.5	0.0	0.0	0.0	0.0	50.5	38.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.42	0.45		0.55			
Lane Grp Cap(c), veh/h	260	1130	0	0	0	732	535	0	0			
V/C Ratio(X)	2.21	0.98	0.00	0.00	0.00	2.02	2.13	0.00	0.00			
Avail Cap(c_a), veh/h	260	1130	0	0	0	732	535	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	42.5	0.0	0.0	0.0	0.0	34.8	40.8	0.0	0.0			
Incr Delay (d2), s/veh	547.2	4.4	0.0	0.0	0.0	461.7	514.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	46.0	1.4	0.0	0.0	0.0	114.6	92.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	589.7	4.4	0.0	0.0	0.0	496.5	555.1	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1680			1475			1139				
Approach Delay, s/veh		204.7			496.5			555.1				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			22.0	55.0		43.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		72.5			17.5	50.5		38.5				
Max Q Clear Time (g_c+I1), s		2.0			19.5	52.5		40.5				
Green Ext Time (p_c), s		15.1			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					397.9							
HCM 6th LOS					F							

Timings  
3: Calimesa Bl. & Singleton Rd.

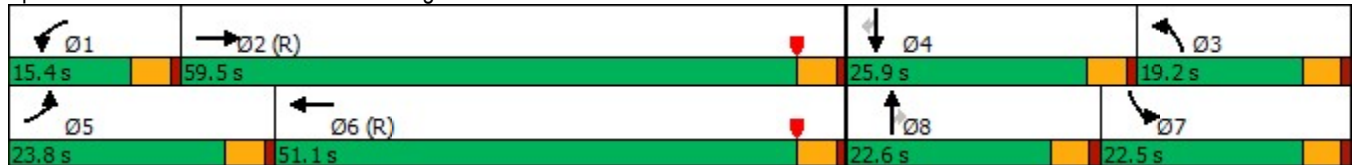
IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	158	874	103	797	313	74	54	191	150	244
Future Volume (vph)	158	874	103	797	313	74	54	191	150	244
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	23.8	59.5	15.4	51.1	19.2	22.6	22.6	22.5	25.9	25.9
Total Split (%)	19.8%	49.6%	12.8%	42.6%	16.0%	18.8%	18.8%	18.8%	21.6%	21.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	15.7	60.4	10.7	55.4	15.3	12.0	12.0	21.8	15.6	15.6
Actuated g/C Ratio	0.13	0.50	0.09	0.46	0.13	0.10	0.10	0.18	0.13	0.13
v/c Ratio	0.71	0.84	0.68	0.57	0.74	0.41	0.20	0.61	0.64	0.59
Control Delay	63.8	27.2	74.3	20.0	66.9	56.3	5.9	55.1	61.1	11.5
Queue Delay	0.0	5.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	63.8	32.9	74.3	20.3	66.9	56.3	5.9	55.1	61.1	11.6
LOS	E	C	E	C	E	E	A	E	E	B
Approach Delay		36.0		25.8		57.6			38.5	
Approach LOS		D		C		E			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 36.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 81.8%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	874	563	103	797	94	313	74	54	191	150	244
Future Volume (veh/h)	158	874	563	103	797	94	313	74	54	191	150	244
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	901	580	106	822	97	323	76	56	197	155	252
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1140	713	129	1631	192	381	156	132	269	232	197
Arrive On Green	0.21	1.00	1.00	0.15	1.00	1.00	0.11	0.08	0.08	0.15	0.12	0.12
Sat Flow, veh/h	1781	2099	1312	1781	3201	378	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	163	759	722	106	456	463	323	76	56	197	155	252
Grp Sat Flow(s),veh/h/ln	1781	1777	1634	1781	1777	1802	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	10.6	0.0	0.0	6.9	0.0	0.0	11.0	4.7	3.4	12.7	9.5	11.8
Cycle Q Clear(g_c), s	10.6	0.0	0.0	6.9	0.0	0.0	11.0	4.7	3.4	12.7	9.5	11.8
Prop In Lane	1.00		0.80	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	965	888	129	905	918	381	156	132	269	232	197
V/C Ratio(X)	0.86	0.79	0.81	0.82	0.50	0.50	0.85	0.49	0.42	0.73	0.67	1.28
Avail Cap(c_a), veh/h	286	965	888	162	905	918	423	282	239	269	334	283
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.40	0.40	0.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	0.0	0.0	50.5	0.0	0.0	52.4	52.6	36.8	48.6	50.2	33.1
Incr Delay (d2), s/veh	6.9	2.7	3.4	22.8	2.0	2.0	13.8	2.4	2.1	9.9	3.3	154.8
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	4.6	0.7	0.8	3.7	0.5	0.5	5.5	2.3	1.7	6.4	4.7	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	2.7	3.4	73.3	2.0	2.0	66.2	54.9	38.9	58.5	53.5	187.8
LnGrp LOS	D	A	A	E	A	A	E	D	D	E	D	F
Approach Vol, veh/h		1644			1025			455			604	
Approach Delay, s/veh		8.0			9.4			61.0			111.2	
Approach LOS		A			A			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	69.7	17.7	19.4	17.2	65.6	22.6	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.9	55.0	14.7	21.4	19.3	46.6	18.0	18.1				
Max Q Clear Time (g_c+I1), s	8.9	2.0	13.0	13.8	12.6	2.0	14.7	6.7				
Green Ext Time (p_c), s	0.0	17.4	0.2	1.1	0.2	7.3	0.2	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			31.6									
HCM 6th LOS			C									

Timings  
4: Beckwith Av. & Singleton Rd.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

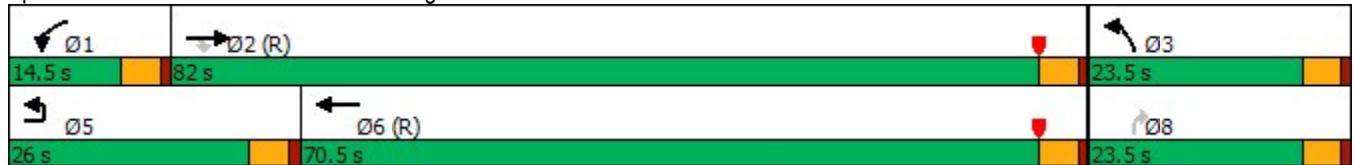


Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↖	↗
Traffic Volume (vph)	169	745	255	63	708	151	38
Future Volume (vph)	169	745	255	63	708	151	38
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	3	
Permitted Phases			2				8
Detector Phase	5	2	2	1	6	3	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	26.0	82.0	82.0	14.5	70.5	23.5	23.5
Total Split (%)	21.7%	68.3%	68.3%	12.1%	58.8%	19.6%	19.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	17.2	80.8	80.8	8.8	70.3	19.0	19.0
Actuated g/C Ratio	0.14	0.67	0.67	0.07	0.59	0.16	0.16
v/c Ratio	0.73	0.63	0.23	0.51	0.68	0.57	0.14
Control Delay	59.5	11.2	1.7	67.0	22.0	55.5	14.3
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	11.5	1.7	67.0	22.0	55.5	14.3
LOS	E	B	A	E	C	E	B
Approach Delay		16.6			25.7	47.2	
Approach LOS		B			C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 22.6  
 Intersection Capacity Utilization 66.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	169	745	255	63	708	151	38
Future Volume (veh/h)	169	745	255	63	708	151	38
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		784	268	66	745	159	40
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1275	1080	85	1434	282	251
Arrive On Green		1.00	1.00	0.05	0.77	0.16	0.16
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		784	268	66	745	159	40
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		0.0	0.0	4.4	18.5	9.9	2.6
Cycle Q Clear(g_c), s		0.0	0.0	4.4	18.5	9.9	2.6
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1275	1080	85	1434	282	251
V/C Ratio(X)		0.62	0.25	0.78	0.52	0.56	0.16
Avail Cap(c_a), veh/h		1275	1080	148	1434	282	251
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	56.5	5.4	46.7	43.6
Incr Delay (d2), s/veh		2.2	0.5	14.0	1.3	7.9	1.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.8	0.2	2.3	6.6	5.0	1.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		2.2	0.5	70.6	6.8	54.6	45.0
LnGrp LOS		A	A	E	A	D	D
Approach Vol, veh/h		1052			811	199	
Approach Delay, s/veh		1.8			12.0	52.7	
Approach LOS		A			B	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	10.2	86.3			96.5	23.5	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	10.0	77.5			66.0	19.0	
Max Q Clear Time (g_c+I1), s	6.4	2.0			20.5	11.9	
Green Ext Time (p_c), s	0.0	8.6			6.5	0.3	

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Timings  
6: Calimesa Bl. & 5th St.

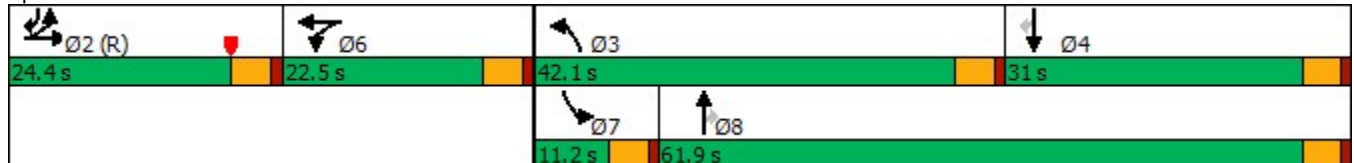
IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	190	178	95	327	1036	417	217	34	384	502
Future Volume (vph)	190	178	95	327	1036	417	217	34	384	502
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	24.4	24.4	22.5	22.5	42.1	61.9	61.9	11.2	31.0	24.4
Total Split (%)	20.3%	20.3%	18.8%	18.8%	35.1%	51.6%	51.6%	9.3%	25.8%	20.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	19.9	19.9	16.7	16.7	38.9	63.2	63.2	6.5	26.5	50.9
Actuated g/C Ratio	0.17	0.17	0.14	0.14	0.32	0.53	0.53	0.05	0.22	0.42
v/c Ratio	0.68	0.58	0.41	0.77	0.99	0.45	0.26	0.38	1.00	0.74
Control Delay	60.8	37.6	52.1	59.9	58.3	23.1	13.2	66.5	90.3	30.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	37.6	52.1	59.9	58.3	23.1	13.2	66.5	90.3	30.6
LOS	E	D	D	E	E	C	B	E	F	C
Approach Delay		45.5		58.3		43.6			56.9	
Approach LOS		D		E		D			E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 49.2  
 Intersection Capacity Utilization 84.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E























Splits and Phases: 6: Calimesa Bl. & 5th St.





HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	178	132	95	327	29	1036	417	217	34	384	502
Future Volume (veh/h)	190	178	132	95	327	29	1036	417	217	34	384	502
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	154	256	71	101	348	16	1102	444	112	36	409	268
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	345	548	149	218	423	19	1083	945	801	52	413	657
Arrive On Green	0.25	0.25	0.25	0.16	0.16	0.16	0.41	0.66	0.66	0.04	0.29	0.29
Sat Flow, veh/h	1781	2833	769	1781	3460	159	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	154	167	160	101	178	186	1102	444	112	36	409	268
Grp Sat Flow(s),veh/h/ln	1781	1870	1732	1781	1777	1842	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.7	9.1	9.4	6.2	11.6	11.7	37.6	14.2	3.2	2.4	26.1	13.9
Cycle Q Clear(g_c), s	8.7	9.1	9.4	6.2	11.6	11.7	37.6	14.2	3.2	2.4	26.1	13.9
Prop In Lane	1.00		0.44	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	362	335	218	217	225	1083	945	801	52	413	657
V/C Ratio(X)	0.45	0.46	0.48	0.46	0.82	0.82	1.02	0.47	0.14	0.69	0.99	0.41
Avail Cap(c_a), veh/h	345	362	335	267	267	276	1083	945	801	99	413	657
HCM Platoon Ratio	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Upstream Filter(l)	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	39.5	39.6	39.7	46.9	49.2	49.2	35.6	12.6	10.7	57.2	42.6	22.6
Incr Delay (d2), s/veh	4.1	4.2	4.8	1.5	15.2	15.3	31.9	1.7	0.4	15.3	41.9	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	4.1	4.5	4.3	2.8	5.9	6.2	19.1	5.4	1.2	1.3	16.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	43.8	44.6	48.4	64.4	64.5	67.4	14.3	11.1	72.5	84.6	24.4
LnGrp LOS	D	D	D	D	E	E	F	B	B	E	F	C
Approach Vol, veh/h		481			465			1658			713	
Approach Delay, s/veh		44.0			61.0			49.4			61.4	
Approach LOS		D			E			D			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.7	42.1	31.0		19.2	8.0	65.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.9	37.6	26.5		18.0	6.7	57.4				
Max Q Clear Time (g_c+I1), s		11.4	39.6	28.1		13.7	4.4	16.2				
Green Ext Time (p_c), s		1.6	0.0	0.0		1.0	0.0	3.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				52.8								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

IY (2028) w/ Scenario 2 PM Peak Hour

7: Roberts Rd. & Cherry Valley Bl.

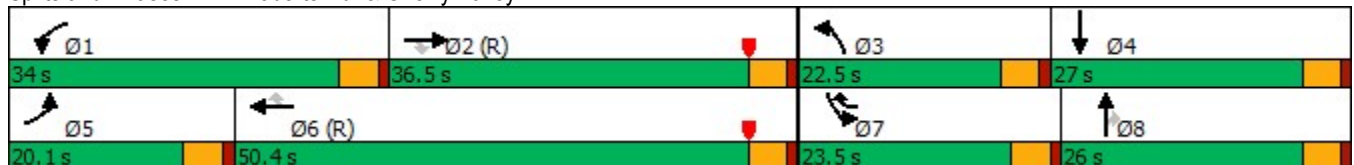
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	259	619	26	274	678	435	26	9	148	326	12
Future Volume (vph)	259	619	26	274	678	435	26	9	148	326	12
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.1	36.5	36.5	34.0	50.4	23.5	22.5	26.0	26.0	23.5	27.0
Total Split (%)	16.8%	30.4%	30.4%	28.3%	42.0%	19.6%	18.8%	21.7%	21.7%	19.6%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	14.0	37.4	37.4	24.1	47.5	71.0	18.0	21.5	21.5	19.0	22.5
Actuated g/C Ratio	0.12	0.31	0.31	0.20	0.40	0.59	0.15	0.18	0.18	0.16	0.19
v/c Ratio	0.68	0.59	0.05	0.81	0.51	0.44	0.10	0.03	0.38	0.63	0.61
Control Delay	59.9	38.4	0.2	62.9	34.0	14.7	45.2	41.0	9.4	53.1	10.4
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	59.9	38.4	0.2	62.9	34.0	14.7	45.2	41.0	9.4	53.1	10.4
LOS	E	D	A	E	C	B	D	D	A	D	B
Approach Delay		43.5			33.6			15.9			31.6
Approach LOS		D			C			B			C

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 35.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 65.1%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	619	26	274	678	435	26	9	148	326	12	317
Future Volume (veh/h)	259	619	26	274	678	435	26	9	148	326	12	317
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	273	652	27	288	714	458	27	9	156	343	13	334
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	336	1183	528	320	1476	909	267	335	284	547	11	288
Arrive On Green	0.10	0.33	0.33	0.18	0.42	0.42	0.15	0.18	0.18	0.16	0.19	0.19
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	60	1534
Grp Volume(v), veh/h	273	652	27	288	714	458	27	9	156	343	0	347
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1594
Q Serve(g_s), s	9.3	18.0	1.4	19.0	17.6	20.8	1.6	0.5	10.8	11.1	0.0	22.5
Cycle Q Clear(g_c), s	9.3	18.0	1.4	19.0	17.6	20.8	1.6	0.5	10.8	11.1	0.0	22.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	336	1183	528	320	1476	909	267	335	284	547	0	299
V/C Ratio(X)	0.81	0.55	0.05	0.90	0.48	0.50	0.10	0.03	0.55	0.63	0.00	1.16
Avail Cap(c_a), veh/h	449	1183	528	438	1476	909	267	335	284	547	0	299
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	53.1	32.7	27.2	48.2	25.7	15.3	44.0	40.6	44.8	47.2	0.0	48.8
Incr Delay (d2), s/veh	8.2	1.8	0.2	17.1	1.1	2.0	0.8	0.1	7.5	5.4	0.0	103.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	7.9	0.6	9.8	7.6	7.8	0.8	0.2	4.8	5.2	0.0	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	34.5	27.3	65.3	26.8	17.3	44.8	40.8	52.3	52.5	0.0	151.7
LnGrp LOS	E	C	C	E	C	B	D	D	D	D	A	F
Approach Vol, veh/h		952			1460			192			690	
Approach Delay, s/veh		42.0			31.4			50.7			102.4	
Approach LOS		D			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	44.5	22.5	27.0	16.2	54.3	23.5	26.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	29.5	32.0	18.0	22.5	15.6	45.9	19.0	21.5				
Max Q Clear Time (g_c+I1), s	21.0	20.0	3.6	24.5	11.3	22.8	13.1	12.8				
Green Ext Time (p_c), s	0.6	3.5	0.0	0.0	0.4	6.9	0.6	0.3				

Intersection Summary

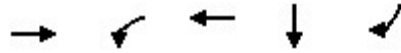
HCM 6th Ctrl Delay	50.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↵	↑↑	↵	↵↵
Traffic Volume (vph)	876	423	590	0	797
Future Volume (vph)	876	423	590	0	797
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	44.0	34.0	78.0	42.0	42.0
Total Split (%)	36.7%	28.3%	65.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Min	Max	Max
Act Effct Green (s)	39.5	29.5	73.5	37.5	37.5
Actuated g/C Ratio	0.33	0.25	0.61	0.31	0.31
v/c Ratio	0.96	0.98	0.28	1.00	0.65
Control Delay	70.0	67.0	20.4	79.5	13.5
Queue Delay	25.1	0.0	0.0	0.0	0.0
Total Delay	95.1	67.0	20.4	79.5	13.5
LOS	F	E	C	E	B
Approach Delay	95.1		39.8	40.4	
Approach LOS	F		D	D	

Intersection Summary


















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 80 (67%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 57.6  
 Intersection Capacity Utilization 123.3%  
 Analysis Period (min) 15  
 Intersection LOS: E  
 ICU Level of Service H

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



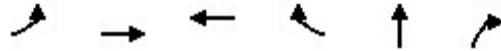
HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	876	218	423	590	0	0	0	0	546	0	797
Future Volume (veh/h)	0	876	218	423	590	0	0	0	0	546	0	797
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	885	220	427	596	0				552	0	805
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	928	231	438	2177	0				557	0	872
Arrive On Green	0.00	0.33	0.33	0.49	1.00	0.00				0.31	0.00	0.31
Sat Flow, veh/h	0	2914	701	1781	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	557	548	427	596	0				552	0	805
Grp Sat Flow(s),veh/h/ln	0	1777	1744	1781	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	36.8	36.9	28.1	0.0	0.0				37.0	0.0	33.5
Cycle Q Clear(g_c), s	0.0	36.8	36.9	28.1	0.0	0.0				37.0	0.0	33.5
Prop In Lane	0.00		0.40	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	585	574	438	2177	0				557	0	872
V/C Ratio(X)	0.00	0.95	0.95	0.98	0.27	0.00				0.99	0.00	0.92
Avail Cap(c_a), veh/h	0	585	574	438	2177	0				557	0	872
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.78	0.78	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	39.3	39.4	30.1	0.0	0.0				41.1	0.0	39.9
Incr Delay (d2), s/veh	0.0	27.2	27.8	31.6	0.2	0.0				36.2	0.0	16.8
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	0.0	20.0	19.8	12.6	0.1	0.0				21.6	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	66.6	67.1	61.7	0.2	0.0				77.2	0.0	56.6
LnGrp LOS	A	E	E	E	A	A				E	A	E
Approach Vol, veh/h		1105			1023						1357	
Approach Delay, s/veh		66.8			25.9						65.0	
Approach LOS		E			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	34.0	44.0		42.0		78.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	29.5	39.5		37.5		73.5						
Max Q Clear Time (g_c+I1), s	30.1	38.9		39.0		2.0						
Green Ext Time (p_c), s	0.0	0.4		0.0		4.5						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				54.1								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

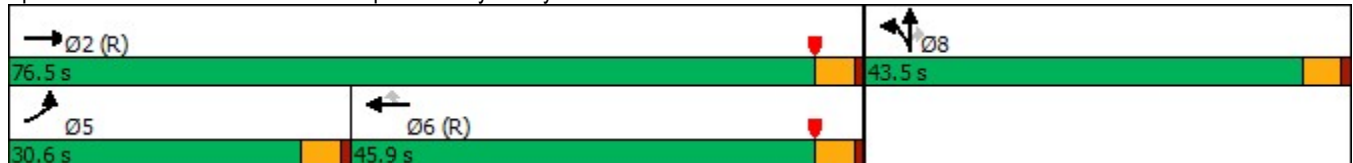


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↖↖	↑	↗↗	↖	↖	↖
Traffic Volume (vph)	496	927	774	509	9	584
Future Volume (vph)	496	927	774	509	9	584
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.6	76.5	45.9	45.9	43.5	43.5
Total Split (%)	25.5%	63.8%	38.3%	38.3%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Max	C-Max	None	None
Act Effct Green (s)	22.8	74.1	46.8	46.8	36.9	36.9
Actuated g/C Ratio	0.19	0.62	0.39	0.39	0.31	0.31
v/c Ratio	0.80	0.85	0.59	0.55	0.48	0.93
Control Delay	58.6	12.9	25.5	7.8	36.6	53.7
Queue Delay	0.0	19.9	0.0	0.0	0.0	0.0
Total Delay	58.6	32.8	25.5	7.8	36.6	53.7
LOS	E	C	C	A	D	D
Approach Delay		41.8	18.5		48.6	
Approach LOS		D	B		D	

Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 34.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 123.3%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

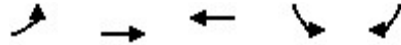
IY (2028) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 							
Traffic Volume (veh/h)	496	927	0	0	774	509	240	9	584	0	0	0
Future Volume (veh/h)	496	927	0	0	774	509	240	9	584	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	522	976	0	0	815	536	253	9	615			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	594	1122	0	0	1388	619	560	20	515			
Arrive On Green	0.23	0.80	0.00	0.00	0.13	0.13	0.32	0.32	0.32			
Sat Flow, veh/h	3456	1870	0	0	3647	1585	1723	61	1585			
Grp Volume(v), veh/h	522	976	0	0	815	536	262	0	615			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1585	1784	0	1585			
Q Serve(g_s), s	17.5	41.3	0.0	0.0	25.9	39.8	13.9	0.0	39.0			
Cycle Q Clear(g_c), s	17.5	41.3	0.0	0.0	25.9	39.8	13.9	0.0	39.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	594	1122	0	0	1388	619	580	0	515			
V/C Ratio(X)	0.88	0.87	0.00	0.00	0.59	0.87	0.45	0.00	1.19			
Avail Cap(c_a), veh/h	752	1122	0	0	1388	619	580	0	515			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(l)	0.18	0.18	0.00	0.00	0.62	0.62	1.00	0.00	1.00			
Uniform Delay (d), s/veh	45.1	9.0	0.0	0.0	43.1	49.2	32.0	0.0	40.5			
Incr Delay (d2), s/veh	2.0	1.9	0.0	0.0	1.1	10.0	0.6	0.0	105.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.2	8.8	0.0	0.0	12.6	18.6	6.1	0.0	30.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	10.9	0.0	0.0	44.3	59.2	32.6	0.0	145.6			
LnGrp LOS	D	B	A	A	D	E	C	A	F			
Approach Vol, veh/h		1498			1351			877				
Approach Delay, s/veh		23.5			50.2			111.8				
Approach LOS		C			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.5			25.1	51.4		43.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		72.0			26.1	41.4		39.0				
Max Q Clear Time (g_c+I1), s		43.3			19.5	41.8		41.0				
Green Ext Time (p_c), s		9.0			1.1	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				54.0								
HCM 6th LOS				D								



Timings  
10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

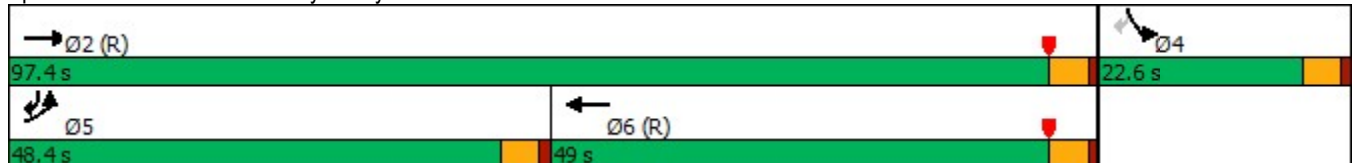


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑	↕	↘	↗
Traffic Volume (vph)	506	1006	934	132	349
Future Volume (vph)	506	1006	934	132	349
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	48.4	97.4	49.0	22.6	48.4
Total Split (%)	40.3%	81.2%	40.8%	18.8%	40.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	40.9	92.9	47.5	18.1	63.5
Actuated g/C Ratio	0.34	0.77	0.40	0.15	0.53
v/c Ratio	0.91	0.76	0.81	0.54	0.45
Control Delay	53.7	9.0	38.4	48.0	19.7
Queue Delay	0.0	1.5	0.0	0.0	0.0
Total Delay	53.7	10.5	38.4	48.0	19.7
LOS	D	B	D	D	B
Approach Delay		25.0	38.4	27.5	
Approach LOS		C	D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 30.0  
 Intersection Capacity Utilization 75.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

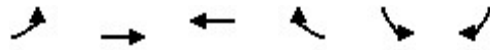
Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.





HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

IY (2028) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	506	1006	934	103	132	349
Future Volume (veh/h)	506	1006	934	103	132	349
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	550	1093	1015	112	143	379
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	577	1448	1332	147	269	752
Arrive On Green	0.43	1.00	0.41	0.41	0.15	0.15
Sat Flow, veh/h	1781	1870	3321	356	1781	1585
Grp Volume(v), veh/h	550	1093	559	568	143	379
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1806	1781	1585
Q Serve(g_s), s	35.8	0.0	32.3	32.3	8.9	18.1
Cycle Q Clear(g_c), s	35.8	0.0	32.3	32.3	8.9	18.1
Prop In Lane	1.00			0.20	1.00	1.00
Lane Grp Cap(c), veh/h	577	1448	734	746	269	752
V/C Ratio(X)	0.95	0.75	0.76	0.76	0.53	0.50
Avail Cap(c_a), veh/h	652	1448	734	746	269	752
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.35	0.35	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	30.2	30.2	47.0	21.8
Incr Delay (d2), s/veh	11.1	1.3	7.3	7.2	7.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	0.5	14.9	15.2	4.5	19.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.4	1.3	37.5	37.4	54.4	24.2
LnGrp LOS	D	A	D	D	D	C
Approach Vol, veh/h		1643	1127		522	
Approach Delay, s/veh		15.7	37.5		32.5	
Approach LOS		B	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	43.4	54.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	43.9	44.5
Max Q Clear Time (g_c+I1), s		2.0		20.1	37.8	34.3
Green Ext Time (p_c), s		13.9		0.0	1.1	5.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			25.8			
HCM 6th LOS			C			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)



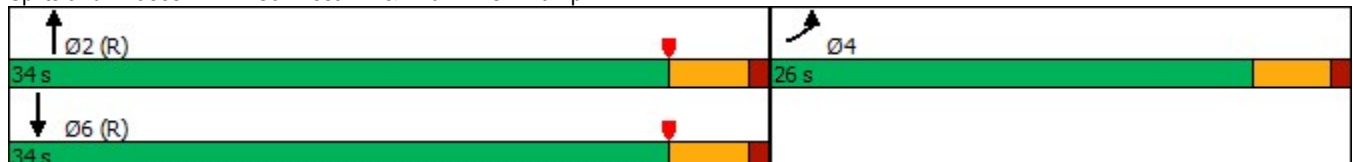
Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	399	1188	570
Future Volume (vph)	399	1188	570
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	26.0	34.0	34.0
Total Split (%)	43.3%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	18.4	32.6	32.6
Actuated g/C Ratio	0.31	0.54	0.54
v/c Ratio	0.79	0.67	0.61
Control Delay	29.9	12.7	13.3
Queue Delay	0.0	0.0	0.0
Total Delay	29.9	12.7	13.3
LOS	C	B	B
Approach Delay	29.9	12.7	13.3
Approach LOS	C	B	B

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 16.1  
 Intersection Capacity Utilization 62.5%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

IY (2028) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑↑	↑	
Traffic Volume (veh/h)	399	1	0	1188	570	0
Future Volume (veh/h)	399	1	0	1188	570	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	429	1	0	1277	613	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	490	1	0	2038	1073	0
Arrive On Green	0.28	0.28	0.00	0.57	0.57	0.00
Sat Flow, veh/h	1773	4	0	3741	1870	0
Grp Volume(v), veh/h	431	0	0	1277	613	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1777	1870	0
Q Serve(g_s), s	13.9	0.0	0.0	14.4	12.5	0.0
Cycle Q Clear(g_c), s	13.9	0.0	0.0	14.4	12.5	0.0
Prop In Lane	1.00	0.00	0.00			0.00
Lane Grp Cap(c), veh/h	492	0	0	2038	1073	0
V/C Ratio(X)	0.88	0.00	0.00	0.63	0.57	0.00
Avail Cap(c_a), veh/h	638	0	0	2038	1073	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	8.5	8.1	0.0
Incr Delay (d2), s/veh	10.6	0.0	0.0	1.5	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	0.0	4.4	4.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.3	0.0	0.0	10.0	10.3	0.0
LnGrp LOS	C	A	A	A	B	A
Approach Vol, veh/h	431			1277	613	
Approach Delay, s/veh	31.3			10.0	10.3	
Approach LOS	C			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		38.9		21.1		38.9
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.5		21.5		29.5
Max Q Clear Time (g_c+I1), s		16.4		15.9		14.5
Green Ext Time (p_c), s		7.3		0.7		3.5

Intersection Summary

HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

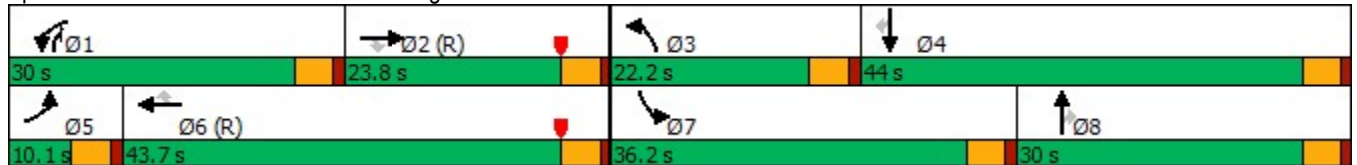
IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	481	98	300	521	530	129	72	310	436	54	4
Future Volume (vph)	18	481	98	300	521	530	129	72	310	436	54	4
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	10.1	23.8	23.8	30.0	43.7	43.7	22.2	30.0	30.0	36.2	44.0	44.0
Total Split (%)	8.4%	19.8%	19.8%	25.0%	36.4%	36.4%	18.5%	25.0%	25.0%	30.2%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	6.9	33.7	33.7	27.9	61.0	61.0	18.7	11.6	41.1	31.7	24.6	24.6
Actuated g/C Ratio	0.06	0.28	0.28	0.23	0.51	0.51	0.16	0.10	0.34	0.26	0.20	0.20
v/c Ratio	0.20	0.53	0.19	0.79	0.31	0.53	0.51	0.23	0.56	1.01	0.08	0.01
Control Delay	57.7	41.5	1.0	53.3	20.1	3.5	55.1	50.8	24.3	89.6	36.1	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	0.0
Total Delay	57.7	41.5	1.0	53.3	20.1	3.5	55.1	50.8	24.3	89.6	36.1	0.0
LOS	E	D	A	D	C	A	E	D	C	F	D	A
Approach Delay		35.3			21.0			35.8			83.1	
Approach LOS		D			C			D			F	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 36.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 72.0%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

IY (2028) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	481	98	300	521	530	129	72	310	436	54	4
Future Volume (veh/h)	18	481	98	300	521	530	129	72	310	436	54	4
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	20	523	107	326	566	576	140	78	337	474	59	4
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	36	717	320	349	1342	598	168	668	609	471	1271	567
Arrive On Green	0.02	0.20	0.20	0.33	0.63	0.63	0.09	0.19	0.19	0.26	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	523	107	326	566	576	140	78	337	474	59	4
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	16.5	6.9	21.3	9.6	41.0	9.3	2.2	20.0	31.7	1.3	0.2
Cycle Q Clear(g_c), s	1.3	16.5	6.9	21.3	9.6	41.0	9.3	2.2	20.0	31.7	1.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	717	320	349	1342	598	168	668	609	471	1271	567
V/C Ratio(X)	0.55	0.73	0.33	0.93	0.42	0.96	0.83	0.12	0.55	1.01	0.05	0.01
Avail Cap(c_a), veh/h	83	717	320	379	1342	598	263	755	647	471	1271	567
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	44.8	41.0	39.6	15.6	21.4	53.4	40.4	28.9	44.1	25.2	24.8
Incr Delay (d2), s/veh	12.6	6.4	2.8	17.8	0.5	18.5	12.2	0.1	0.9	43.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.9	3.0	10.0	3.4	14.0	4.7	1.0	7.7	19.5	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	51.2	43.8	57.4	16.1	39.8	65.6	40.5	29.8	87.5	25.2	24.8
LnGrp LOS	E	D	D	E	B	D	E	D	C	F	C	C
Approach Vol, veh/h		650			1468			555			537	
Approach Delay, s/veh		50.6			34.6			40.4			80.2	
Approach LOS		D			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.0	28.7	15.8	47.4	6.9	49.8	36.2	27.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	19.3	17.7	39.5	5.6	39.2	31.7	25.5				
Max Q Clear Time (g_c+I1), s	23.3	18.5	11.3	3.3	3.3	43.0	33.7	22.0				
Green Ext Time (p_c), s	0.2	0.3	0.2	0.3	0.0	0.0	0.0	0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			46.4									
HCM 6th LOS			D									

**APPENDIX 6.9: SUNDAY INTERIM YEAR CUMULATIVE (2028) WITH PA3  
CHURCH CONDITIONS INTERSECTION ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

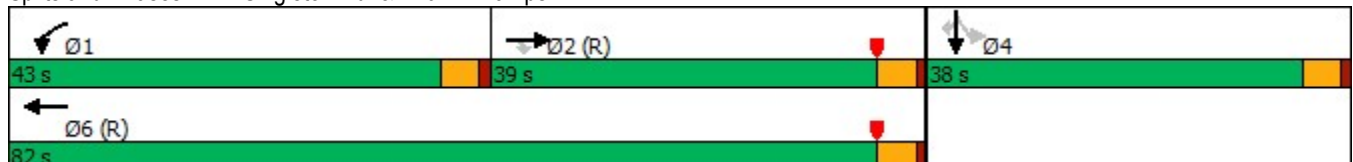
1: Singleton Rd. & I-10 EB Ramps

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↙	↑	↔	↙
Traffic Volume (vph)	560	238	308	608	0	314
Future Volume (vph)	560	238	308	608	0	314
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	39.0	39.0	43.0	82.0	38.0	38.0
Total Split (%)	32.5%	32.5%	35.8%	68.3%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effect Green (s)	44.0	44.0	29.0	77.5	33.5	33.5
Actuated g/C Ratio	0.37	0.37	0.24	0.65	0.28	0.28
v/c Ratio	0.49	0.39	0.82	0.57	0.62	0.48
Control Delay	32.8	16.8	61.1	13.0	37.1	8.1
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	32.8	16.8	61.1	13.5	37.1	8.1
LOS	C	B	E	B	D	A
Approach Delay	28.0			29.5	23.3	
Approach LOS	C			C	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 27.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 67.8%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

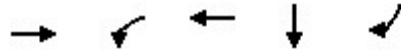




HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
 1: Singleton Rd. & I-10 EB Ramps

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑						↕	↗
Traffic Volume (veh/h)	0	560	238	308	608	0	0	0	0	228	0	314
Future Volume (veh/h)	0	560	238	308	608	0	0	0	0	228	0	314
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	636	270	350	691	0				259	74	308
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1411	629	376	1208	0				391	112	442
Arrive On Green	0.00	0.40	0.40	0.42	1.00	0.00				0.28	0.28	0.28
Sat Flow, veh/h	0	3647	1585	1781	1870	0				1400	400	1585
Grp Volume(v), veh/h	0	636	270	350	691	0				333	0	308
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1870	0				1800	0	1585
Q Serve(g_s), s	0.0	15.8	14.9	22.4	0.0	0.0				19.6	0.0	20.9
Cycle Q Clear(g_c), s	0.0	15.8	14.9	22.4	0.0	0.0				19.6	0.0	20.9
Prop In Lane	0.00		1.00	1.00		0.00				0.78		1.00
Lane Grp Cap(c), veh/h	0	1411	629	376	1208	0				503	0	442
V/C Ratio(X)	0.00	0.45	0.43	0.93	0.57	0.00				0.66	0.00	0.70
Avail Cap(c_a), veh/h	0	1411	629	571	1208	0				503	0	442
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.79	0.79	0.63	0.63	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.6	26.3	33.8	0.0	0.0				38.3	0.0	38.7
Incr Delay (d2), s/veh	0.0	0.8	1.7	11.5	1.2	0.0				6.7	0.0	8.8
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	0.0	6.8	5.9	9.0	0.4	0.0				9.6	0.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.4	28.0	45.3	1.2	0.0				45.0	0.0	47.5
LnGrp LOS	A	C	C	D	A	A				D	A	D
Approach Vol, veh/h		906			1041						641	
Approach Delay, s/veh		27.6			16.1						46.2	
Approach LOS		C			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.9	52.1		38.0		82.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	38.5	34.5		33.5		77.5						
Max Q Clear Time (g_c+I1), s	24.4	17.8		22.9		2.0						
Green Ext Time (p_c), s	0.9	5.0		2.4		5.9						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.5								
HCM 6th LOS				C								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

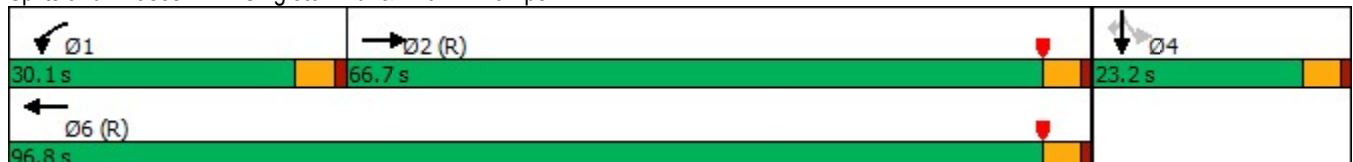


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↗	↖	↗	↖	↗
Traffic Volume (vph)	560	308	608	0	314
Future Volume (vph)	560	308	608	0	314
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	66.7	30.1	96.8	23.2	23.2
Total Split (%)	55.6%	25.1%	80.7%	19.3%	19.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	62.6	25.2	92.3	18.7	18.7
Actuated g/C Ratio	0.52	0.21	0.77	0.16	0.16
v/c Ratio	0.96	0.94	0.48	0.89	0.67
Control Delay	48.4	60.1	4.9	81.6	12.9
Queue Delay	0.0	0.0	0.6	0.0	0.0
Total Delay	48.4	60.1	5.5	81.6	12.9
LOS	D	E	A	F	B
Approach Delay	48.4		23.9	41.8	
Approach LOS	D		C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 36.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 103.3%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻	↻
Traffic Volume (veh/h)	0	560	238	308	608	0	0	0	0	228	0	314
Future Volume (veh/h)	0	560	238	308	608	0	0	0	0	228	0	314
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	636	270	350	691	0				259	0	357
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	654	277	369	1439	0				278	0	247
Arrive On Green	0.00	0.52	0.52	0.41	1.00	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	1246	529	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	906	350	691	0				259	0	357
Grp Sat Flow(s),veh/h/ln	0	0	1775	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	59.5	22.7	0.0	0.0				17.2	0.0	18.7
Cycle Q Clear(g_c), s	0.0	0.0	59.5	22.7	0.0	0.0				17.2	0.0	18.7
Prop In Lane	0.00		0.30	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	931	369	1439	0				278	0	247
V/C Ratio(X)	0.00	0.00	0.97	0.95	0.48	0.00				0.93	0.00	1.45
Avail Cap(c_a), veh/h	0	0	931	380	1439	0				278	0	247
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.42	0.42	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	27.7	34.5	0.0	0.0				50.0	0.0	50.7
Incr Delay (d2), s/veh	0.0	0.0	23.7	18.4	0.5	0.0				39.2	0.0	221.8
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	0.0	0.0	30.1	9.8	0.2	0.0				10.7	0.0	22.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	51.4	52.9	0.5	0.0				89.3	0.0	272.4
LnGrp LOS	A	A	D	D	A	A				F	A	F
Approach Vol, veh/h		906			1041						616	
Approach Delay, s/veh		51.4			18.1						195.4	
Approach LOS		D			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.4	67.4		23.2		96.8						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	25.6	62.2		18.7		92.3						
Max Q Clear Time (g_c+I1), s	24.7	61.5		20.7		2.0						
Green Ext Time (p_c), s	0.1	0.5		0.0		5.9						

Intersection Summary

HCM 6th Ctrl Delay	72.5
HCM 6th LOS	E













Notes

User approved pedestrian interval to be less than phase max green.

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

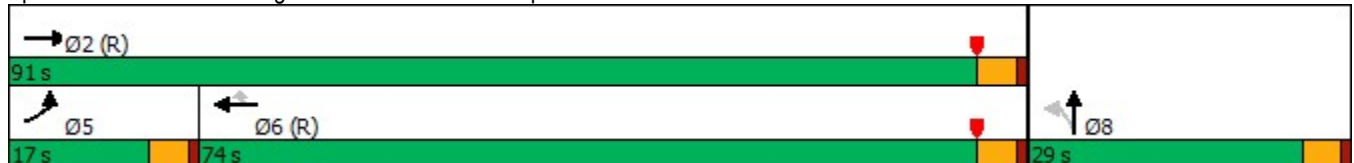
2: Singleton Rd. & I-10 WB Ramps

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	260	527	618	198	299	0
Future Volume (vph)	260	527	618	198	299	0
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	5	2	6			8
Permitted Phases				6	8	
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	73.0	73.0	28.0	28.0
Total Split (s)	17.0	91.0	74.0	74.0	29.0	29.0
Total Split (%)	14.2%	75.8%	61.7%	61.7%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	12.3	87.2	70.4	70.4	23.8	23.8
Actuated g/C Ratio	0.10	0.73	0.59	0.59	0.20	0.20
v/c Ratio	0.81	0.42	0.62	0.21	0.93	0.47
Control Delay	59.0	10.4	12.1	1.7	80.3	3.0
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	59.0	10.6	12.1	1.7	80.3	3.0
LOS	E	B	B	A	F	A
Approach Delay		26.6	9.6			43.7
Approach LOS		C	A			D




















Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 24.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 67.8%  
 ICU Level of Service C  
 Analysis Period (min) 15









Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



## HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church 2: Singleton Rd. & I-10 WB Ramps

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 											
Traffic Volume (veh/h)	260	527	0	0	618	198	299	0	269	0	0	0
Future Volume (veh/h)	260	527	0	0	618	198	299	0	269	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	283	573	0	0	672	215	325	0	292			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	334	1356	0	0	1106	937	356	0	317			
Arrive On Green	0.19	1.00	0.00	0.00	1.00	1.00	0.20	0.00	0.20			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	283	573	0	0	672	215	325	0	292			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	9.5	0.0	0.0	0.0	0.0	0.0	21.4	0.0	21.7			
Cycle Q Clear(g_c), s	9.5	0.0	0.0	0.0	0.0	0.0	21.4	0.0	21.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	334	1356	0	0	1106	937	356	0	317			
V/C Ratio(X)	0.85	0.42	0.00	0.00	0.61	0.23	0.91	0.00	0.92			
Avail Cap(c_a), veh/h	360	1356	0	0	1106	937	364	0	324			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	0.92	0.92	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.6	0.0	0.0	0.0	0.0	0.0	47.0	0.0	47.1			
Incr Delay (d2), s/veh	14.2	0.8	0.0	0.0	2.3	0.5	26.5	0.0	30.5			
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	4.4	0.3	0.0	0.0	0.7	0.1	12.1	0.0	11.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	0.8	0.0	0.0	2.3	0.5	73.5	0.0	77.6			
LnGrp LOS	E	A	A	A	A	A	E	A	E			
Approach Vol, veh/h		856			887			617				
Approach Delay, s/veh		21.0			1.9			75.4				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		91.5			16.1	75.4		28.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		86.5			12.5	69.5		24.5				
Max Q Clear Time (g_c+I1), s		2.0			11.5	2.0		23.7				
Green Ext Time (p_c), s		4.5			0.1	6.6		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					28.0							
HCM 6th LOS					C							

Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	260	527	618	0
Future Volume (vph)	260	527	618	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	73.0	28.0
Total Split (s)	14.0	88.0	74.0	32.0
Total Split (%)	11.7%	73.3%	61.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	9.5	83.5	69.5	27.5
Actuated g/C Ratio	0.08	0.70	0.58	0.23
v/c Ratio	2.02	0.44	0.84	1.43
Control Delay	494.6	10.8	29.4	239.5
Queue Delay	0.0	0.6	0.0	0.0
Total Delay	494.6	11.3	29.4	239.5
LOS	F	B	C	F
Approach Delay		171.1	29.4	239.5
Approach LOS		F	C	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.02  
 Intersection Signal Delay: 135.7  
 Intersection Capacity Utilization 103.3%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service G

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	527	0	0	618	198	299	0	269	0	0	0
Future Volume (veh/h)	260	527	0	0	618	198	299	0	269	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	283	573	0	0	672	215	325	0	292			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	141	1301	0	0	786	252	203	0	182			
Arrive On Green	0.16	1.00	0.00	0.00	0.58	0.58	0.23	0.00	0.23			
Sat Flow, veh/h	1781	1870	0	0	1358	434	886	0	796			
Grp Volume(v), veh/h	283	573	0	0	0	887	617	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1792	1683	0	0			
Q Serve(g_s), s	9.5	0.0	0.0	0.0	0.0	49.5	27.5	0.0	0.0			
Cycle Q Clear(g_c), s	9.5	0.0	0.0	0.0	0.0	49.5	27.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.24	0.53		0.47			
Lane Grp Cap(c), veh/h	141	1301	0	0	0	1038	386	0	0			
V/C Ratio(X)	2.01	0.44	0.00	0.00	0.00	0.85	1.60	0.00	0.00			
Avail Cap(c_a), veh/h	141	1301	0	0	0	1038	386	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.19	0.19	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	50.5	0.0	0.0	0.0	0.0	21.0	46.3	0.0	0.0			
Incr Delay (d2), s/veh	457.9	0.2	0.0	0.0	0.0	9.0	281.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	21.8	0.1	0.0	0.0	0.0	22.1	41.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	508.4	0.2	0.0	0.0	0.0	30.0	328.2	0.0	0.0			
LnGrp LOS	F	A	A	A	A	C	F	A	A			
Approach Vol, veh/h		856			887			617				
Approach Delay, s/veh		168.2			30.0			328.2				
Approach LOS		F			C			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		88.0			14.0	74.0		32.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		83.5			9.5	69.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0			11.5	51.5		29.5				
Green Ext Time (p_c), s		4.5			0.0	6.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					158.1							
HCM 6th LOS					F							

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

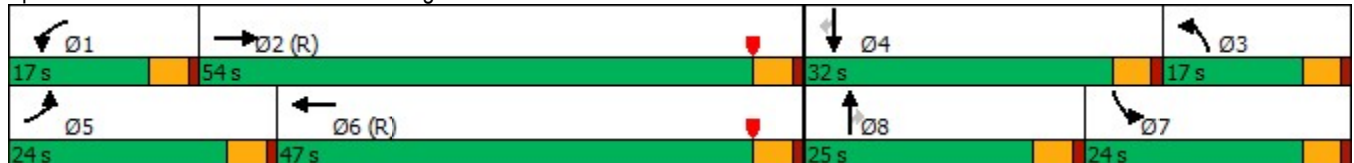
3: Calimesa Bl. & Singleton Rd.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	116	514	66	560	150	83	71	118	104	106
Future Volume (vph)	116	514	66	560	150	83	71	118	104	106
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	24.0	54.0	17.0	47.0	17.0	25.0	25.0	24.0	32.0	32.0
Total Split (%)	20.0%	45.0%	14.2%	39.2%	14.2%	20.8%	20.8%	20.0%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	13.6	67.9	10.1	62.3	13.0	12.3	12.3	13.8	13.1	13.1
Actuated g/C Ratio	0.11	0.57	0.08	0.52	0.11	0.10	0.10	0.12	0.11	0.11
v/c Ratio	0.61	0.37	0.47	0.40	0.43	0.46	0.24	0.62	0.55	0.39
Control Delay	59.3	16.2	69.7	15.7	48.8	69.5	3.4	63.3	60.3	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	16.2	69.7	15.7	48.8	69.5	3.4	63.3	60.3	8.6
LOS	E	B	E	B	D	E	A	E	E	A
Approach Delay		22.5		20.4		43.8			44.7	
Approach LOS		C		C		D			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 28.1  
 Intersection Capacity Utilization 50.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.





HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church 3: Calimesa Bl. & Singleton Rd.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	514	165	66	560	122	150	83	71	118	104	106
Future Volume (veh/h)	116	514	165	66	560	122	150	83	71	118	104	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		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	123	547	176	70	596	130	160	88	76	126	111	113
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	149	1667	535	89	1731	377	299	156	132	154	156	132
Arrive On Green	0.17	1.00	1.00	0.10	1.00	1.00	0.09	0.08	0.08	0.09	0.08	0.08
Sat Flow, veh/h	1781	2646	848	1781	2902	631	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	123	367	356	70	364	362	160	88	76	126	111	113
Grp Sat Flow(s),veh/h/ln	1781	1777	1718	1781	1777	1757	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.0	0.0	0.0	4.6	0.0	0.0	5.3	5.4	4.8	8.3	6.9	7.0
Cycle Q Clear(g_c), s	8.0	0.0	0.0	4.6	0.0	0.0	5.3	5.4	4.8	8.3	6.9	7.0
Prop In Lane	1.00		0.49	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1120	1082	89	1060	1048	299	156	132	154	156	132
V/C Ratio(X)	0.83	0.33	0.33	0.78	0.34	0.35	0.54	0.56	0.58	0.82	0.71	0.86
Avail Cap(c_a), veh/h	289	1120	1082	186	1060	1048	360	320	271	289	429	363
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	0.0	0.0	53.4	0.0	0.0	52.5	52.9	39.5	53.9	53.6	37.1
Incr Delay (d2), s/veh	10.0	0.7	0.7	13.8	0.9	0.9	1.5	3.2	3.9	10.1	5.9	14.3
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	3.7	0.2	0.2	2.3	0.3	0.3	2.4	2.7	2.3	4.2	3.5	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	0.7	0.7	67.2	0.9	0.9	54.0	56.1	43.4	64.0	59.5	51.4
LnGrp LOS	E	A	A	E	A	A	D	E	D	E	E	D
Approach Vol, veh/h		846			796			324			350	
Approach Delay, s/veh		9.2			6.7			52.1			58.5	
Approach LOS		A			A			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	80.1	14.9	14.5	14.5	76.1	14.9	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	49.5	12.5	27.5	19.5	42.5	19.5	20.5				
Max Q Clear Time (g_c+I1), s	6.6	2.0	7.3	9.0	10.0	2.0	10.3	7.4				
Green Ext Time (p_c), s	0.1	5.4	0.2	0.9	0.2	5.3	0.2	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				21.8								
HCM 6th LOS				C								

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

4: Beckwith Av. & Singleton Rd.



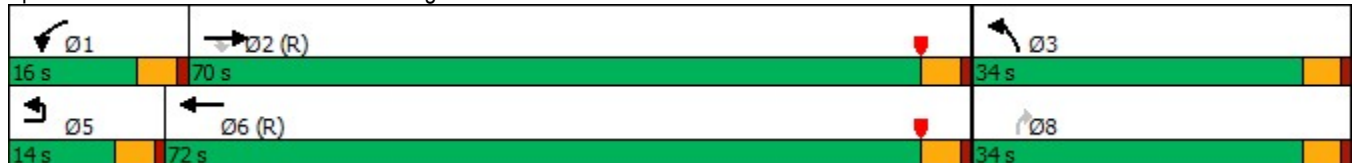
Lane Group	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑	↗	↖	↑	↖	↗
Traffic Volume (vph)	34	478	195	46	547	186	44
Future Volume (vph)	34	478	195	46	547	186	44
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	5	2		1	6	3	
Permitted Phases			2				8
Detector Phase	5	2	2	1	6	3	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	14.0	70.0	70.0	16.0	72.0	34.0	34.0
Total Split (%)	11.7%	58.3%	58.3%	13.3%	60.0%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max
Act Effct Green (s)	7.7	70.4	70.4	8.6	73.5	29.5	29.5
Actuated g/C Ratio	0.06	0.59	0.59	0.07	0.61	0.25	0.25
v/c Ratio	0.32	0.46	0.20	0.38	0.50	0.45	0.11
Control Delay	63.1	14.6	2.5	61.1	16.1	42.3	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	14.6	2.5	61.1	16.1	42.3	10.8
LOS	E	B	A	E	B	D	B
Approach Delay		13.6			19.6	36.3	
Approach LOS		B			B	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 19.4  
 Intersection Capacity Utilization 54.5%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
4: Beckwith Av. & Singleton Rd.



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	→	↲	↰	→	↲	↲
Traffic Volume (veh/h)	34	478	195	46	547	186	44
Future Volume (veh/h)	34	478	195	46	547	186	44
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		503	205	48	576	196	46
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1353	1147	62	1489	230	205
Arrive On Green		1.00	1.00	0.03	0.80	0.13	0.13
Sat Flow, veh/h		1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		503	205	48	576	196	46
Grp Sat Flow(s),veh/h/ln		1870	1585	1781	1870	1781	1585
Q Serve(g_s), s		0.0	0.0	3.2	10.9	12.9	3.1
Cycle Q Clear(g_c), s		0.0	0.0	3.2	10.9	12.9	3.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1353	1147	62	1489	230	205
V/C Ratio(X)		0.37	0.18	0.77	0.39	0.85	0.22
Avail Cap(c_a), veh/h		1353	1147	171	1489	438	390
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	57.4	3.6	51.1	46.9
Incr Delay (d2), s/veh		0.8	0.3	18.1	0.8	8.6	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.3	0.1	1.8	3.6	6.3	1.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		0.8	0.3	75.6	4.4	59.8	47.4
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		708			624	242	
Approach Delay, s/veh		0.7			9.9	57.4	
Approach LOS		A			A	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	8.7	91.3			100.0	20.0	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	11.5	65.5			67.5	29.5	
Max Q Clear Time (g_c+I1), s	5.2	2.0			12.9	14.9	
Green Ext Time (p_c), s	0.0	4.5			4.5	0.6	

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
6: Calimesa Bl. & 5th St.

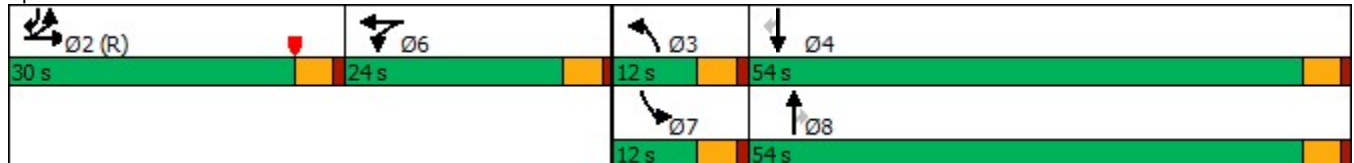
IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	83	62	88	194	70	432	175	36	179	348
Future Volume (vph)	83	62	88	194	70	432	175	36	179	348
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	30.0	30.0	24.0	24.0	12.0	54.0	54.0	12.0	54.0	30.0
Total Split (%)	25.0%	25.0%	20.0%	20.0%	10.0%	45.0%	45.0%	10.0%	45.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	25.5	25.5	13.8	13.8	7.8	57.0	57.0	7.7	57.0	87.0
Actuated g/C Ratio	0.21	0.21	0.12	0.12	0.06	0.48	0.48	0.06	0.48	0.72
v/c Ratio	0.19	0.18	0.48	0.62	0.35	0.54	0.24	0.35	0.22	0.32
Control Delay	40.6	28.5	56.9	53.6	53.1	24.9	10.6	62.0	21.1	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	28.5	56.9	53.6	53.1	24.9	10.6	62.0	21.1	4.0
LOS	D	C	E	D	D	C	B	E	C	A
Approach Delay		32.6		54.5		24.1			13.2	
Approach LOS		C		D		C			B	


























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 27.0  
 Intersection Capacity Utilization 53.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church 6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 					
Traffic Volume (veh/h)	83	62	33	88	194	37	70	432	175	36	179	348
Future Volume (veh/h)	83	62	33	88	194	37	70	432	175	36	179	348
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	65	104	36	97	213	41	77	475	192	40	197	382
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	538	813	269	173	289	55	133	786	666	55	772	1133
Arrive On Green	0.30	0.30	0.30	0.10	0.10	0.10	0.04	0.42	0.42	0.03	0.41	0.41
Sat Flow, veh/h	1781	2690	890	1781	2982	564	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	65	71	69	97	125	129	77	475	192	40	197	382
Grp Sat Flow(s),veh/h/ln	1781	1870	1710	1781	1777	1769	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.2	3.3	3.5	6.2	8.2	8.5	2.6	23.7	9.6	2.7	8.3	10.9
Cycle Q Clear(g_c), s	3.2	3.3	3.5	6.2	8.2	8.5	2.6	23.7	9.6	2.7	8.3	10.9
Prop In Lane	1.00		0.52	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	538	565	517	173	172	172	133	786	666	55	772	1133
V/C Ratio(X)	0.12	0.13	0.13	0.56	0.73	0.75	0.58	0.60	0.29	0.73	0.26	0.34
Avail Cap(c_a), veh/h	538	565	517	289	289	287	216	786	666	111	772	1133
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(l)	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	30.3	30.4	30.5	51.7	52.6	52.8	56.7	27.0	22.9	57.7	23.1	6.4
Incr Delay (d2), s/veh	0.5	0.5	0.5	2.8	5.8	6.4	3.9	3.4	1.1	17.0	0.8	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	1.4	1.6	1.5	2.9	3.9	4.1	1.2	11.1	3.7	1.5	3.8	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	30.8	31.0	54.6	58.4	59.2	60.7	30.5	24.0	74.7	23.9	7.2
LnGrp LOS	C	C	C	D	E	E	E	C	C	E	C	A
Approach Vol, veh/h		205			351			744			619	
Approach Delay, s/veh		30.9			57.6			31.9			16.9	
Approach LOS		C			E			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		40.7	9.1	54.0		16.1	8.2	54.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	7.5	49.5		19.5	7.5	49.5				
Max Q Clear Time (g_c+I1), s		5.5	4.6	12.9		10.5	4.7	25.7				
Green Ext Time (p_c), s		0.9	0.0	2.6		1.1	0.0	3.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				31.7								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	295	500	45	273	500	347	25	3	158	399	12
Future Volume (vph)	295	500	45	273	500	347	25	3	158	399	12
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	34.5	34.5	36.0	48.5	27.0	22.5	22.5	22.5	27.0	27.0
Total Split (%)	18.3%	28.8%	28.8%	30.0%	40.4%	22.5%	18.8%	18.8%	18.8%	22.5%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	15.5	36.9	36.9	24.6	46.0	73.0	18.0	18.0	18.0	22.5	22.5
Actuated g/C Ratio	0.13	0.31	0.31	0.20	0.38	0.61	0.15	0.15	0.15	0.19	0.19
v/c Ratio	0.71	0.49	0.08	0.80	0.39	0.34	0.10	0.01	0.44	0.66	0.49
Control Delay	59.2	36.9	0.3	57.6	25.9	6.9	45.2	43.7	10.7	50.8	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	59.2	36.9	0.3	57.6	25.9	6.9	45.2	43.7	10.7	50.8	10.5
LOS	E	D	A	E	C	A	D	D	B	D	B
Approach Delay		42.7			27.7			15.9			36.4
Approach LOS		D			C			B			D

























Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
7: Roberts Rd. & Cherry Valley Bl.

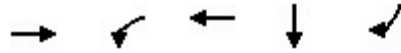
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	500	45	273	500	347	25	3	158	399	12	209
Future Volume (veh/h)	295	500	45	273	500	347	25	3	158	399	12	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	314	532	48	290	532	369	27	3	168	424	13	222
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	379	1178	525	323	1432	936	267	281	238	648	17	283
Arrive On Green	0.11	0.33	0.33	0.18	0.40	0.40	0.15	0.15	0.15	0.19	0.19	0.19
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	88	1510
Grp Volume(v), veh/h	314	532	48	290	532	369	27	3	168	424	0	235
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	0	1599
Q Serve(g_s), s	10.7	14.1	2.5	19.1	12.6	14.9	1.6	0.2	12.1	13.6	0.0	16.8
Cycle Q Clear(g_c), s	10.7	14.1	2.5	19.1	12.6	14.9	1.6	0.2	12.1	13.6	0.0	16.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.94
Lane Grp Cap(c), veh/h	379	1178	525	323	1432	936	267	281	238	648	0	300
V/C Ratio(X)	0.83	0.45	0.09	0.90	0.37	0.39	0.10	0.01	0.71	0.65	0.00	0.78
Avail Cap(c_a), veh/h	504	1178	525	468	1432	936	267	281	238	648	0	300
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	52.3	31.5	27.7	48.1	25.2	13.1	44.0	43.4	48.5	45.1	0.0	46.4
Incr Delay (d2), s/veh	8.5	1.3	0.3	15.1	0.7	1.2	0.8	0.1	16.2	5.1	0.0	18.3
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	5.0	6.2	1.0	9.7	5.4	5.5	0.8	0.1	5.9	6.3	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	32.8	28.0	63.2	25.9	14.4	44.8	43.5	64.7	50.2	0.0	64.8
LnGrp LOS	E	C	C	E	C	B	D	D	E	D	A	E
Approach Vol, veh/h		894			1191			198				659
Approach Delay, s/veh		42.4			31.4			61.7				55.4
Approach LOS		D			C			E				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.2	44.3	22.5	27.0	17.7	52.8	27.0	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	31.5	30.0	18.0	22.5	17.5	44.0	22.5	18.0				
Max Q Clear Time (g_c+I1), s	21.1	16.1	3.6	18.8	12.7	16.9	15.6	14.1				
Green Ext Time (p_c), s	0.6	3.0	0.0	0.5	0.5	5.1	0.9	0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			42.2									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

8: I-10 EB Ramps & Cherry Valley Bl.

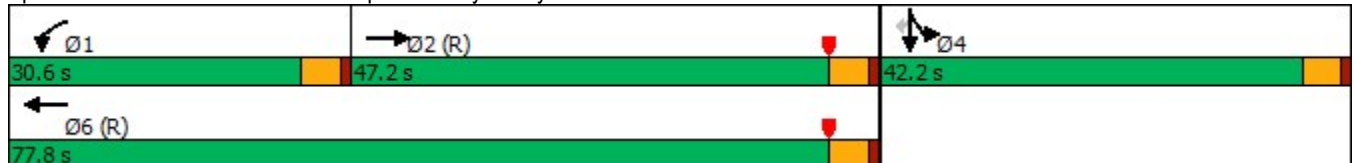


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↵	↑↑	↵	↵↵
Traffic Volume (vph)	853	295	576	2	542
Future Volume (vph)	853	295	576	2	542
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	47.2	30.6	77.8	42.2	42.2
Total Split (%)	39.3%	25.5%	64.8%	35.2%	35.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Min	Max	Max
Act Effct Green (s)	44.8	24.0	73.3	37.7	37.7
Actuated g/C Ratio	0.37	0.20	0.61	0.31	0.31
v/c Ratio	0.85	0.87	0.28	0.83	0.45
Control Delay	50.1	72.6	19.3	52.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	72.6	19.3	52.4	4.7
LOS	D	E	B	D	A
Approach Delay	50.1		37.3	26.1	
Approach LOS	D		D	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 107.7 (90%), 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: 38.2  
 Intersection Capacity Utilization 82.2%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.





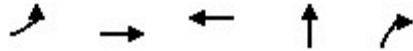
HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
8: I-10 EB Ramps & Cherry Valley Bl.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑						↵	↵↵
Traffic Volume (veh/h)	0	853	203	295	576	0	0	0	0	442	2	542
Future Volume (veh/h)	0	853	203	295	576	0	0	0	0	442	2	542
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	889	211	307	600	0				460	2	565
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1106	262	330	2171	0				557	2	876
Arrive On Green	0.00	0.39	0.39	0.37	1.00	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	2943	676	1781	3647	0				1774	8	2790
Grp Volume(v), veh/h	0	554	546	307	600	0				462	0	565
Grp Sat Flow(s),veh/h/ln	0	1777	1749	1781	1777	0				1782	0	1395
Q Serve(g_s), s	0.0	33.3	33.3	19.9	0.0	0.0				28.8	0.0	20.9
Cycle Q Clear(g_c), s	0.0	33.3	33.3	19.9	0.0	0.0				28.8	0.0	20.9
Prop In Lane	0.00		0.39	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	689	679	330	2171	0				560	0	876
V/C Ratio(X)	0.00	0.80	0.80	0.93	0.28	0.00				0.83	0.00	0.64
Avail Cap(c_a), veh/h	0	689	679	387	2171	0				560	0	876
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.76	0.76	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	32.7	32.7	37.0	0.0	0.0				38.1	0.0	35.4
Incr Delay (d2), s/veh	0.0	9.6	9.8	21.9	0.2	0.0				13.0	0.0	3.6
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	15.8	15.6	8.9	0.1	0.0				14.5	0.0	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.3	42.5	58.9	0.2	0.0				51.1	0.0	39.0
LnGrp LOS	A	D	D	E	A	A				D	A	D
Approach Vol, veh/h		1100			907						1027	
Approach Delay, s/veh		42.4			20.1						44.5	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.7	51.1		42.2		77.8						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	26.1	42.7		37.7		73.3						
Max Q Clear Time (g_c+I1), s	21.9	35.3		30.8		2.0						
Green Ext Time (p_c), s	0.4	4.0		3.1		4.6						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				36.4								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

9: I-10 WB Ramps & Cherry Valley Bl.



Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	618	677	680	5	381
Future Volume (vph)	618	677	680	5	381
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5
Total Split (s)	36.0	89.6	53.6	30.4	30.4
Total Split (%)	30.0%	74.7%	44.7%	25.3%	25.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Min	C-Max	None	None
Act Effct Green (s)	26.7	91.6	60.4	19.4	19.4
Actuated g/C Ratio	0.22	0.76	0.50	0.16	0.16
v/c Ratio	0.82	0.48	0.61	0.69	0.68
Control Delay	53.7	6.4	14.1	59.3	16.2
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	53.7	6.7	14.1	59.3	16.2
LOS	D	A	B	E	B
Approach Delay		29.1	14.1	30.9	
Approach LOS		C	B	C	




















Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 24.1  
 Intersection Capacity Utilization 82.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



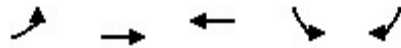
HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
 9: I-10 WB Ramps & Cherry Valley Bl.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 							
Traffic Volume (veh/h)	618	677	0	0	680	365	191	5	381	0	0	0
Future Volume (veh/h)	618	677	0	0	680	365	191	5	381	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	624	684	0	0	687	369	193	5	385			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	692	1326	0	0	1053	565	375	10	342			
Arrive On Green	0.40	1.00	0.00	0.00	0.94	0.94	0.22	0.22	0.22			
Sat Flow, veh/h	3456	1870	0	0	2326	1199	1738	45	1585			
Grp Volume(v), veh/h	624	684	0	0	547	509	198	0	385			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1655	1783	0	1585			
Q Serve(g_s), s	20.3	0.0	0.0	0.0	5.5	5.5	11.8	0.0	25.9			
Cycle Q Clear(g_c), s	20.3	0.0	0.0	0.0	5.5	5.5	11.8	0.0	25.9			
Prop In Lane	1.00		0.00	0.00		0.72	0.97		1.00			
Lane Grp Cap(c), veh/h	692	1326	0	0	838	780	385	0	342			
V/C Ratio(X)	0.90	0.52	0.00	0.00	0.65	0.65	0.51	0.00	1.13			
Avail Cap(c_a), veh/h	907	1326	0	0	838	780	385	0	342			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.42	0.42	0.00	0.00	0.79	0.79	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.9	0.0	0.0	0.0	2.0	2.0	41.5	0.0	47.0			
Incr Delay (d2), s/veh	4.6	0.6	0.0	0.0	3.1	3.4	1.2	0.0	87.0			
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	7.2	0.2	0.0	0.0	1.6	1.6	5.3	0.0	18.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	0.6	0.0	0.0	5.1	5.3	42.7	0.0	134.1			
LnGrp LOS	D	A	A	A	A	A	D	A	F			
Approach Vol, veh/h		1308			1056			583				
Approach Delay, s/veh		19.2			5.2			103.0				
Approach LOS		B			A			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		89.6			28.5	61.1		30.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		85.1			31.5	49.1		25.9				
Max Q Clear Time (g_c+I1), s		2.0			22.3	7.5		27.9				
Green Ext Time (p_c), s		5.5			1.7	8.7		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				30.8								
HCM 6th LOS				C								

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

10: Cherry Valley Bl. & Calimesa Bl.

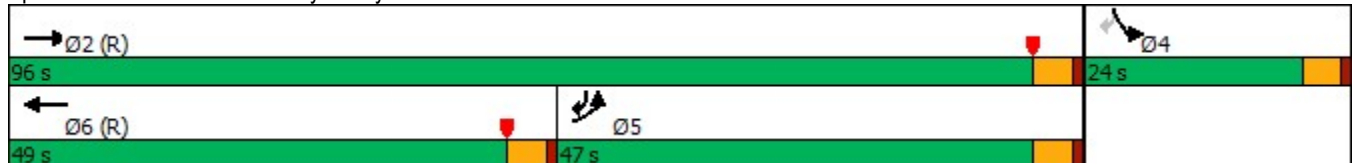


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑	↕	↘	↗
Traffic Volume (vph)	359	700	689	106	356
Future Volume (vph)	359	700	689	106	356
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	47.0	96.0	49.0	24.0	47.0
Total Split (%)	39.2%	80.0%	40.8%	20.0%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	42.5	91.5	44.5	19.5	66.5
Actuated g/C Ratio	0.35	0.76	0.37	0.16	0.55
v/c Ratio	0.60	0.52	0.65	0.39	0.41
Control Delay	37.0	7.1	33.6	49.0	12.4
Queue Delay	0.0	0.4	0.0	0.0	0.0
Total Delay	37.0	7.5	33.6	49.0	12.4
LOS	D	A	C	D	B
Approach Delay		17.5	33.6	20.8	
Approach LOS		B	C	C	

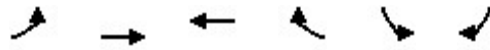
Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 23.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 59.8%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
 10: Cherry Valley Bl. & Calimesa Bl.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	359	700	689	116	106	356
Future Volume (veh/h)	359	700	689	116	106	356
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	378	737	725	122	112	375
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	631	1426	1129	190	289	819
Arrive On Green	0.71	1.00	0.37	0.37	0.16	0.16
Sat Flow, veh/h	1781	1870	3137	512	1781	1585
Grp Volume(v), veh/h	378	737	423	424	112	375
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1778	1781	1585
Q Serve(g_s), s	12.9	0.0	23.6	23.6	6.7	0.0
Cycle Q Clear(g_c), s	12.9	0.0	23.6	23.6	6.7	0.0
Prop In Lane	1.00			0.29	1.00	1.00
Lane Grp Cap(c), veh/h	631	1426	659	659	289	819
V/C Ratio(X)	0.60	0.52	0.64	0.64	0.39	0.46
Avail Cap(c_a), veh/h	631	1426	659	659	289	819
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.81	0.81	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	31.2	31.2	44.9	18.4
Incr Delay (d2), s/veh	1.3	1.1	4.8	4.8	3.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.4	10.8	10.8	3.3	12.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.5	1.1	35.9	36.0	48.8	20.2
LnGrp LOS	B	A	D	D	D	C
Approach Vol, veh/h		1115	847		487	
Approach Delay, s/veh		5.6	35.9		26.8	
Approach LOS		A	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.0		24.0	47.0	49.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		91.5		19.5	42.5	44.5
Max Q Clear Time (g_c+I1), s		2.0		8.7	14.9	25.6
Green Ext Time (p_c), s		6.2		1.3	1.2	5.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			20.3			
HCM 6th LOS			C			

Timings

IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

11: Calimesa Bl. & I-10 WB Off-Ramp

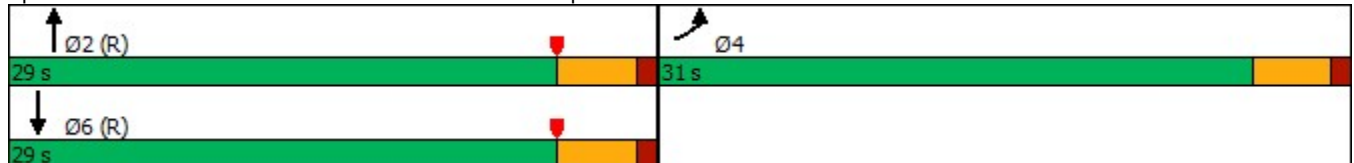


Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	381	295	301
Future Volume (vph)	381	295	301
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	31.0	29.0	29.0
Total Split (%)	51.7%	48.3%	48.3%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	19.7	31.3	31.3
Actuated g/C Ratio	0.33	0.52	0.52
v/c Ratio	0.74	0.18	0.34
Control Delay	25.1	9.1	9.7
Queue Delay	0.0	0.0	0.0
Total Delay	25.1	9.1	9.7
LOS	C	A	A
Approach Delay	25.1	9.1	9.7
Approach LOS	C	A	A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 15.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 44.8%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
 11: Calimesa Bl. & I-10 WB Off-Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑	
Traffic Volume (veh/h)	381	5	0	295	301	0
Future Volume (veh/h)	381	5	0	295	301	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	423	6	0	328	334	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	491	7	0	2024	1065	0
Arrive On Green	0.28	0.28	0.00	0.57	0.57	0.00
Sat Flow, veh/h	1749	25	0	3741	1870	0
Grp Volume(v), veh/h	430	0	0	328	334	0
Grp Sat Flow(s),veh/h/ln	1778	0	0	1777	1870	0
Q Serve(g_s), s	13.8	0.0	0.0	2.6	5.6	0.0
Cycle Q Clear(g_c), s	13.8	0.0	0.0	2.6	5.6	0.0
Prop In Lane	0.98	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	499	0	0	2024	1065	0
V/C Ratio(X)	0.86	0.00	0.00	0.16	0.31	0.00
Avail Cap(c_a), veh/h	785	0	0	2024	1065	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.5	0.0	0.0	6.1	6.8	0.0
Incr Delay (d2), s/veh	6.0	0.0	0.0	0.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	0.0	0.8	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.5	0.0	0.0	6.3	7.5	0.0
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h	430			328	334	
Approach Delay, s/veh	26.5			6.3	7.5	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		24.5		26.5		24.5
Max Q Clear Time (g_c+I1), s		4.6		15.8		7.6
Green Ext Time (p_c), s		1.9		1.1		1.7

Intersection Summary

HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

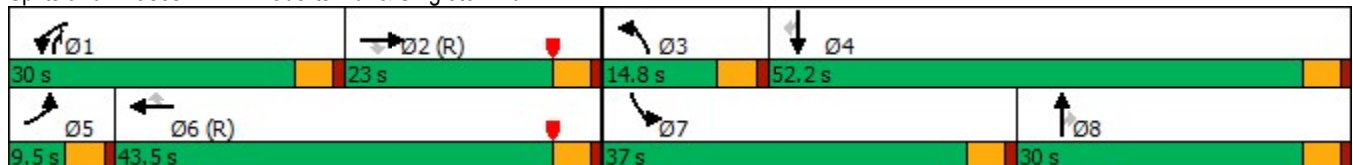
IY (2028) w/ Scenario 3 Sunday Morning with PA2 Church

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	324	58	85	371	444	64	49	74	396	45	2
Future Volume (vph)	4	324	58	85	371	444	64	49	74	396	45	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	9.5	23.0	23.0	30.0	43.5	43.5	14.8	30.0	30.0	37.0	52.2	52.2
Total Split (%)	7.9%	19.2%	19.2%	25.0%	36.3%	36.3%	12.3%	25.0%	25.0%	30.8%	43.5%	43.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	5.9	50.3	50.3	11.6	64.2	64.2	8.9	11.6	24.8	31.4	33.3	33.3
Actuated g/C Ratio	0.05	0.42	0.42	0.10	0.54	0.54	0.07	0.10	0.21	0.26	0.28	0.28
v/c Ratio	0.05	0.24	0.08	0.54	0.21	0.45	0.54	0.16	0.20	0.93	0.05	0.00
Control Delay	55.2	25.7	0.2	72.1	14.5	2.8	68.4	49.6	5.5	71.3	30.3	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	0.0
Total Delay	55.2	25.7	0.2	72.1	14.5	2.8	68.4	49.6	5.5	71.3	30.3	0.0
LOS	E	C	A	E	B	A	E	D	A	E	C	A
Approach Delay		22.1			14.2			38.7			66.8	
Approach LOS		C			B			D			E	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 30.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 54.3%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.





HCM 6th Signalized Intersection Summary (2028) w/ Scenario 3 Sunday Morning with PA2 Church  
12: Roberts Rd. & Singleton Rd.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	324	58	85	371	444	64	49	74	396	45	2
Future Volume (veh/h)	4	324	58	85	371	444	64	49	74	396	45	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	352	63	92	403	483	70	53	80	430	49	2
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	9	1582	706	116	1796	801	90	296	236	456	1027	458
Arrive On Green	0.01	0.45	0.45	0.11	0.84	0.84	0.05	0.08	0.08	0.26	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	4	352	63	92	403	483	70	53	80	430	49	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.3	7.3	2.8	6.0	2.6	11.6	4.7	1.7	5.4	28.4	1.2	0.1
Cycle Q Clear(g_c), s	0.3	7.3	2.8	6.0	2.6	11.6	4.7	1.7	5.4	28.4	1.2	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	9	1582	706	116	1796	801	90	296	236	456	1027	458
V/C Ratio(X)	0.43	0.22	0.09	0.79	0.22	0.60	0.78	0.18	0.34	0.94	0.05	0.00
Avail Cap(c_a), veh/h	74	1582	706	379	1796	801	153	755	440	482	1413	630
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	20.5	19.2	52.7	4.8	5.5	56.3	51.2	45.8	43.8	30.7	30.4
Incr Delay (d2), s/veh	28.7	0.3	0.2	9.4	0.2	2.8	13.5	0.3	0.8	26.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.1	1.1	2.9	1.0	0.6	2.4	0.8	2.2	15.8	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.2	20.8	19.5	62.0	5.1	8.3	69.8	51.5	46.6	70.2	30.8	30.4
LnGrp LOS	F	C	B	E	A	A	E	D	D	E	C	C
Approach Vol, veh/h		419			978			203			481	
Approach Delay, s/veh		21.3			12.0			55.9			66.0	
Approach LOS		C			B			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	57.9	10.5	39.2	5.1	65.1	35.2	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	18.5	10.3	47.7	5.0	39.0	32.5	25.5				
Max Q Clear Time (g_c+I1), s	8.0	9.3	6.7	3.2	2.3	13.6	30.4	7.4				
Green Ext Time (p_c), s	0.2	1.7	0.0	0.3	0.0	4.8	0.3	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			30.6									
HCM 6th LOS			C									

**APPENDIX 7.1: HORIZON YEAR (2045) WITHOUT PROJECT  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	59.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	672	447	562	581	0	0	0	0	250	0	350
Future Vol, veh/h	0	672	447	562	581	0	0	0	0	250	0	350
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	738	491	618	638	0	0	0	0	272	0	380

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	1229	0	0	2858	3103	638
Stage 1	-	-	-	-	-	-	1874	1874	-
Stage 2	-	-	-	-	-	-	984	1229	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	~ 567	-	0	~ 19	12	477
Stage 1	0	-	-	-	-	0	~ 133	121	-
Stage 2	0	-	-	-	-	0	362	250	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	~ 567	-	-	0	0	477
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-
Stage 1	-	-	-	-	-	-	~ 133	0	-
Stage 2	-	-	-	-	-	-	0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	44.6	202.3
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	~ 567	-	477
HCM Lane V/C Ratio	-	-	1.089	-	1.367
HCM Control Delay (s)	-	-	90.7	0	202.3
HCM Lane LOS	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	18.7	-	30

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	372.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	660	0	0	833	309	323
Future Vol, veh/h	660	0	0	833	309	323
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	710	0	0	896	332	347

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1606 710
Stage 1	-	-	-	-	710 -
Stage 2	-	-	-	-	896 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 116 434
Stage 1	-	0	0	-	487 -
Stage 2	-	0	0	-	399 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 116 434
Mov Cap-2 Maneuver	-	-	-	-	~ 116 -
Stage 1	-	-	-	-	487 -
Stage 2	-	-	-	-	399 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 1253.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	185	-	-
HCM Lane V/C Ratio	3.673	-	-
HCM Control Delay (s)	\$ 1253.6	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	65.7	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	935.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	188	832	62	34	1147	236	136	284	160	88	24	200
Future Vol, veh/h	188	832	62	34	1147	236	136	284	160	88	24	200
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	202	895	67	37	1233	254	146	305	172	95	26	215
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	953.3	1343.8	340.3	123
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	17%	2%	28%
Vol Thru, %	49%	77%	81%	8%
Vol Right, %	28%	6%	17%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	580	1082	1417	312
LT Vol	136	188	34	88
Through Vol	284	832	1147	24
RT Vol	160	62	236	200
Lane Flow Rate	624	1163	1524	335
Geometry Grp	1	1	1	1
Degree of Util (X)	1.588	3.001	3.89	0.867
Departure Headway (Hd)	22.249	20.324	17.358	32.833
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	168	198	229	114
Service Time	20.249	18.324	15.358	30.833
HCM Lane V/C Ratio	3.714	5.874	6.655	2.939
HCM Control Delay	340.3	953.3	1343.8	123
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	17.4	48.4	78.8	5.1

Intersection							
Int Delay, s/veh	830.3						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	31	859	177	91	967	429	104
Future Vol, veh/h	31	859	177	91	967	429	104
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	34	877	181	93	987	438	106

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	1058	0	2141	968
Stage 1	-	-	-	-	-	968	-
Stage 2	-	-	-	-	-	1173	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	658	-	~ 54	308
Stage 1	-	-	-	-	-	~ 368	-
Stage 2	-	-	-	-	-	~ 294	-
Platoon blocked, %		-	-	-		-	
Mov Cap-1 Maneuver	-	-	-	658	-	~ 46	308
Mov Cap-2 Maneuver	-	-	-	-	-	~ 46	-
Stage 1	-	-	-	-	-	~ 368	-
Stage 2	-	-	-	-	-	~ 253	-

Approach	EB	WB	NB
HCM Control Delay, s		1	\$ 4141.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	55	-	-	658	-
HCM Lane V/C Ratio	9.889	-	-	0.141	-
HCM Control Delay (s)	\$ 4141.9	-	-	11.4	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	64.3	-	-	0.5	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	85.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	42	887	34	13	836	15	91	13	24	25	5	130
Future Vol, veh/h	42	887	34	13	836	15	91	13	24	25	5	130
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	934	36	14	880	16	96	14	25	26	5	137
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	102	90.8	17.4	17.2
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	71%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	10%	0%	100%	90%	0%	100%	95%	3%
Vol Right, %	19%	0%	0%	10%	0%	0%	5%	81%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	42	591	330	13	557	294	160
LT Vol	91	42	0	0	13	0	0	25
Through Vol	13	0	591	296	0	557	279	5
RT Vol	24	0	0	34	0	0	15	130
Lane Flow Rate	135	44	622	347	14	587	309	168
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.342	0.095	1.247	0.688	0.03	1.187	0.623	0.39
Departure Headway (Hd)	9.71	8.047	7.531	7.456	8.158	7.642	7.605	8.884
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	373	448	486	489	441	481	479	408
Service Time	7.41	5.747	5.231	5.156	5.858	5.342	5.305	6.584
HCM Lane V/C Ratio	0.362	0.098	1.28	0.71	0.032	1.22	0.645	0.412
HCM Control Delay	17.4	11.6	151.3	25	11.1	128.9	22.1	17.2
HCM Lane LOS	C	B	F	C	B	F	C	C
HCM 95th-tile Q	1.5	0.3	24.1	5.2	0.1	21	4.2	1.8



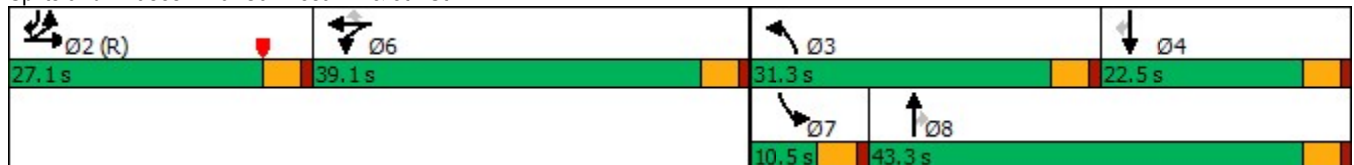
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	265	411	37	472	23	1110	533	231	28	164	497
Future Volume (vph)	265	411	37	472	23	1110	533	231	28	164	497
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	34.6	34.6	34.6	26.8	43.0	43.0	5.9	18.0	45.1
Actuated g/C Ratio	0.19	0.19	0.29	0.29	0.29	0.22	0.36	0.36	0.05	0.15	0.38
v/c Ratio	0.93	1.03	0.09	1.03	0.05	3.31	0.49	0.43	0.38	0.69	0.89
Control Delay	84.6	90.0	31.9	89.9	0.2	1061.3	32.6	20.2	68.1	62.3	47.3
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	84.6	90.0	31.9	89.9	0.2	1061.3	32.6	20.2	68.1	62.3	47.3
LOS	F	F	C	F	A	F	C	C	E	E	D
Approach Delay		88.4		82.0			640.3			51.7	
Approach LOS		F		F			F			D	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.31  
 Intersection Signal Delay: 346.8  
 Intersection Capacity Utilization 128.4%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	411	120	37	472	23	1110	533	231	28	164	497
Future Volume (veh/h)	265	411	120	37	472	23	1110	533	231	28	164	497
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	312	484	141	44	555	27	1306	627	272	33	193	585
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	525	152	514	539	457	398	1228	548	50	281	536
Arrive On Green	0.19	0.19	0.19	0.29	0.29	0.29	0.22	0.35	0.35	0.03	0.15	0.15
Sat Flow, veh/h	1781	2789	807	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	312	324	301	44	555	27	1306	627	272	33	193	585
Grp Sat Flow(s),veh/h/ln	1781	1870	1725	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	20.7	20.4	20.6	2.2	34.6	1.5	26.8	16.8	16.3	2.2	11.7	18.0
Cycle Q Clear(g_c), s	20.7	20.4	20.6	2.2	34.6	1.5	26.8	16.8	16.3	2.2	11.7	18.0
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	352	325	514	539	457	398	1228	548	50	281	536
V/C Ratio(X)	0.93	0.92	0.93	0.09	1.03	0.06	3.28	0.51	0.50	0.67	0.69	1.09
Avail Cap(c_a), veh/h	335	352	325	514	539	457	398	1228	548	89	281	536
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(l)	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	47.9	47.8	47.9	31.2	42.7	30.9	46.6	31.2	31.0	57.8	48.3	32.2
Incr Delay (d2), s/veh	34.2	31.2	34.5	0.1	46.4	0.1	1033.8	1.5	3.2	14.3	12.9	65.9
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	12.3	12.5	11.9	1.0	22.9	0.6	125.9	7.4	6.6	1.2	6.4	26.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.1	79.0	82.4	31.2	89.1	31.0	1080.4	32.7	34.2	72.1	61.3	98.1
LnGrp LOS	F	E	F	C	F	C	F	C	C	E	E	F
Approach Vol, veh/h		937			626			2205			811	
Approach Delay, s/veh		81.1			82.5			653.4			88.3	
Approach LOS		F			F			F			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	31.3	22.5		39.1	7.8	46.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		22.7	28.8	20.0		36.6	4.2	18.8				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	5.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				358.2								
HCM 6th LOS				F								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	422	584	25	149	512	408	13	28	141	579	25
Future Volume (vph)	422	584	25	149	512	408	13	28	141	579	25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	25.5	25.5	9.5	24.0	24.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	18.3%	42.5%	42.5%	15.8%	40.0%	40.0%	41.7%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	6.5	21.0	21.0	5.0	19.5	19.5	20.5	20.5	20.5		20.5
Actuated g/C Ratio	0.11	0.35	0.35	0.08	0.32	0.32	0.34	0.34	0.34		0.34
v/c Ratio	2.43	0.52	0.04	1.12	0.49	0.57	0.04	0.05	0.24		1.98
Control Delay	677.9	17.3	0.1	141.3	18.0	6.1	13.6	13.6	4.0		469.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	677.9	17.3	0.1	141.3	18.0	6.1	13.6	13.6	4.0		469.5
LOS	F	B	A	F	B	A	B	B	A		F
Approach Delay		287.4			30.7			6.2			469.5
Approach LOS		F			C			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.43  
 Intersection Signal Delay: 238.2  
 Intersection LOS: F  
 Intersection Capacity Utilization 108.3%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	584	25	149	512	408	13	28	141	579	25	319
Future Volume (veh/h)	422	584	25	149	512	408	13	28	141	579	25	319
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	464	642	27	164	563	448	14	31	155	636	27	351
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	1244	555	148	1155	515	522	639	542	372	12	151
Arrive On Green	0.11	0.35	0.35	0.08	0.32	0.32	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1005	1870	1585	802	34	443
Grp Volume(v), veh/h	464	642	27	164	563	448	14	31	155	1014	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1005	1870	1585	1279	0	0
Q Serve(g_s), s	6.5	8.6	0.7	5.0	7.6	16.0	0.0	0.7	4.3	19.8	0.0	0.0
Cycle Q Clear(g_c), s	6.5	8.6	0.7	5.0	7.6	16.0	0.5	0.7	4.3	20.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.63		0.35
Lane Grp Cap(c), veh/h	193	1244	555	148	1155	515	522	639	542	535	0	0
V/C Ratio(X)	2.40	0.52	0.05	1.10	0.49	0.87	0.03	0.05	0.29	1.90	0.00	0.00
Avail Cap(c_a), veh/h	193	1244	555	148	1155	515	522	639	542	535	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	15.5	12.9	27.5	16.2	19.1	13.2	13.2	14.4	21.9	0.0	0.0
Incr Delay (d2), s/veh	647.6	1.5	0.2	104.7	1.5	17.9	0.1	0.1	1.3	410.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.3	3.3	0.2	6.3	3.0	7.6	0.1	0.3	1.6	68.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	674.3	17.0	13.1	132.2	17.7	36.9	13.3	13.4	15.7	432.3	0.0	0.0
LnGrp LOS	F	B	B	F	B	D	B	B	B	F	A	A
Approach Vol, veh/h		1133			1175			200			1014	
Approach Delay, s/veh		286.1			41.0			15.2			432.3	
Approach LOS		F			D			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	25.5		25.0	11.0	24.0		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	21.0		20.5	6.5	19.5		20.5				
Max Q Clear Time (g_c+I1), s	7.0	10.6		22.5	8.5	18.0		6.3				
Green Ext Time (p_c), s	0.0	3.1		0.0	0.0	0.9		0.6				

Intersection Summary

HCM 6th Ctrl Delay	231.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

**Intersection**

Intersection Delay, s/veh 622.7  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	1086	219	457	573	0	0	0	0	440	0	496
Future Vol, veh/h	0	1086	219	457	573	0	0	0	0	440	0	496
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1168	235	491	616	0	0	0	0	473	0	533
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	797	572.3	435.3
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	44%	47%
Vol Thru, %	83%	56%	0%
Vol Right, %	17%	0%	53%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1305	1030	936
LT Vol	0	457	440
Through Vol	1086	573	0
RT Vol	219	0	496
Lane Flow Rate	1403	1108	1006
Geometry Grp	1	1	1
Degree of Util (X)	2.701	2.19	1.899
Departure Headway (Hd)	11.173	12.218	9.204
Convergence, Y/N	Yes	Yes	Yes
Cap	337	310	403
Service Time	9.173	10.218	7.204
HCM Lane V/C Ratio	4.163	3.574	2.496
HCM Control Delay	797	572.3	435.3
HCM Lane LOS	F	F	F
HCM 95th-tile Q	73	48.8	49.6

Intersection												
Intersection Delay, s/veh	339.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	778	748	0	0	825	652	204	12	497	0	0	0
Future Vol, veh/h	778	748	0	0	825	652	204	12	497	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	837	804	0	0	887	701	219	13	534	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	1042.9	923.8	228
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	29%	51%	0%
Vol Thru, %	2%	49%	56%
Vol Right, %	70%	0%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	713	1526	1477
LT Vol	204	778	0
Through Vol	12	748	825
RT Vol	497	0	652
Lane Flow Rate	767	1641	1588
Geometry Grp	1	1	1
Degree of Util (X)	1.42	3.251	2.985
Departure Headway (Hd)	9.086	11.142	11.129
Convergence, Y/N	Yes	Yes	Yes
Cap	406	345	349
Service Time	7.086	9.142	9.129
HCM Lane V/C Ratio	1.889	4.757	4.55
HCM Control Delay	228	1042.9	923.8
HCM Lane LOS	F	F	F
HCM 95th-tile Q	28.3	95.1	84.5

Intersection						
Int Delay, s/veh	170.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	417	829	1099	174	94	378
Future Vol, veh/h	417	829	1099	174	94	378
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	485	964	1278	202	109	440

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1480	0	-	0	3313 1379
Stage 1	-	-	-	-	1379 -
Stage 2	-	-	-	-	1934 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	~ 455	-	-	-	~ 9 ~ 177
Stage 1	-	-	-	-	234 -
Stage 2	-	-	-	-	124 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	~ 455	-	-	-	0 ~ 177
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	124 -

Approach	EB	WB	SB
HCM Control Delay, s	30.5	0	\$ 999.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 455	-	-	-	177
HCM Lane V/C Ratio	1.066	-	-	-	3.101
HCM Control Delay (s)	91	0	-	-	\$ 999.8
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	15.5	-	-	-	50.6

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	595.4
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	585	3	0	1466	268	0
Future Vol, veh/h	585	3	0	1466	268	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	650	3	0	1629	298	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	144.5	880.3	26.5
HCM LOS	F	F	D

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1466	588	268
LT Vol	0	585	0
Through Vol	1466	0	268
RT Vol	0	3	0
Lane Flow Rate	1629	653	298
Geometry Grp	1	1	1
Degree of Util (X)	2.91	1.203	0.582
Departure Headway (Hd)	7.091	9.805	10.226
Convergence, Y/N	Yes	Yes	Yes
Cap	538	379	357
Service Time	5.091	7.805	8.226
HCM Lane V/C Ratio	3.028	1.723	0.835
HCM Control Delay	880.3	144.5	26.5
HCM Lane LOS	F	F	D
HCM 95th-tile Q	125.6	18.3	3.5



Intersection						
Int Delay, s/veh	553.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	310	231	252	571	531	245
Future Vol, veh/h	310	231	252	571	531	245
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	620	462	504	1142	1062	490

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	3689	1075	0	0	1646
Stage 1	1075	-	-	-	-
Stage 2	2614	-	-	-	-
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	~ 5	~ 267	-	-	~ 393
Stage 1	~ 328	-	-	-	-
Stage 2	~ 55	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	0	~ 267	-	-	~ 393
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	~ 328	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, \$	1409.8	0	\$ 543.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	267	~ 393
HCM Lane V/C Ratio	-	-	4.052	2.702
HCM Control Delay (s)	-	\$ 1409.8	794.5	0
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	105.7	88.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	653											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	1105	652	447	1133	0	0	0	0	558	0	644
Future Vol, veh/h	0	1105	652	447	1133	0	0	0	0	558	0	644
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1214	716	491	1245	0	0	0	0	607	0	700

Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	0	1930	0	0				3799	4157	1245
Stage 1	-	-	-	-	-	-				2227	2227	-
Stage 2	-	-	-	-	-	-				1572	1930	-
Critical Hdwy	-	-	-	4.12	-	-				6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-				3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	~ 305	-	0				~ 4	2	~ 212
Stage 1	0	-	-	-	-	0				~ 88	80	-
Stage 2	0	-	-	-	-	0				~ 188	113	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	-	-	-	~ 305	-	-				0	0	~ 212
Mov Cap-2 Maneuver	-	-	-	-	-	-				0	0	-
Stage 1	-	-	-	-	-	-				~ 88	0	-
Stage 2	-	-	-	-	-	-				0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	90.5	\$ 2365.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	~ 305	-	212
HCM Lane V/C Ratio	-	-	1.611	-	6.163
HCM Control Delay (s)	-	-	\$ 319.8	\$ 2365.4	
HCM Lane LOS	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	29.5	-	140.3

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 2577.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	984	0	0	863	717	616
Future Vol, veh/h	984	0	0	863	717	616
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	1070	0	0	938	779	670

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	2008 1070
Stage 1	-	-	-	-	1070 -
Stage 2	-	-	-	-	938 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 65 ~ 269
Stage 1	-	0	0	-	~ 329 -
Stage 2	-	0	0	-	~ 381 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 65 ~ 269
Mov Cap-2 Maneuver	-	-	-	-	~ 65 -
Stage 1	-	-	-	-	~ 329 -
Stage 2	-	-	-	-	~ 381 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 6149.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	100	-	-
HCM Lane V/C Ratio	14.489	-	-
HCM Control Delay (s)	\$ 6149.5	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	171.8	-	-

**Notes**  
~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	1070.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	174	1301	195	79	1121	112	148	62	42	225	129	268
Future Vol, veh/h	174	1301	195	79	1121	112	148	62	42	225	129	268
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	179	1341	201	81	1156	115	153	64	43	232	133	276
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1484	1087.8	96.6	317.4
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	10%	6%	36%
Vol Thru, %	25%	78%	85%	21%
Vol Right, %	17%	12%	9%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	1670	1312	622
LT Vol	148	174	79	225
Through Vol	62	1301	1121	129
RT Vol	42	195	112	268
Lane Flow Rate	260	1722	1353	641
Geometry Grp	1	1	1	1
Degree of Util (X)	0.696	4.205	3.307	1.542
Departure Headway (Hd)	35.876	16.906	19.463	20.963
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	104	241	203	180
Service Time	33.876	14.906	17.463	18.963
HCM Lane V/C Ratio	2.5	7.145	6.665	3.561
HCM Control Delay	96.6	1484	1087.8	317.4
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	3.6	89.1	57.3	17.4

**Intersection**

Int Delay, s/veh 1062.5

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	173	957	486	166	881	290	130
Future Vol, veh/h	173	957	486	166	881	290	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	188	1007	512	175	927	305	137

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	- 0	0 1519	0 2540 1263
Stage 1	- -	- -	- 1263 -
Stage 2	- -	- -	- 1277 -
Critical Hdwy	- -	- 4.12	- 6.42 6.22
Critical Hdwy Stg 1	- -	- -	- 5.42 -
Critical Hdwy Stg 2	- -	- -	- 5.42 -
Follow-up Hdwy	- -	- 2.218	- 3.518 3.318
Pot Cap-1 Maneuver	- -	- 439	- ~ 30 207
Stage 1	- -	- -	- ~ 266 -
Stage 2	- -	- -	- ~ 262 -
Platoon blocked, %	- -	- -	- -
Mov Cap-1 Maneuver	- -	- 439	- ~ 18 207
Mov Cap-2 Maneuver	- -	- -	- ~ 18 -
Stage 1	- -	- -	- ~ 266 -
Stage 2	- -	- -	- ~ 157 -

Approach	EB	WB	NB
HCM Control Delay, s		2.9	\$ 7806.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	25	-	-	439	-
HCM Lane V/C Ratio	17.684	-	-	0.398	-
HCM Control Delay (s)	\$ 7806.5	-	-	18.5	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	55.1	-	-	1.9	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	81
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↘			↕↘	
Traffic Vol, veh/h	110	921	56	34	960	17	28	5	30	20	15	59
Future Vol, veh/h	110	921	56	34	960	17	28	5	30	20	15	59
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	115	959	58	35	1000	18	29	5	31	21	16	61
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	74.9	98	13.5	14
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	44%	100%	0%	0%	100%	0%	0%	21%
Vol Thru, %	8%	0%	100%	85%	0%	100%	95%	16%
Vol Right, %	48%	0%	0%	15%	0%	0%	5%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	63	110	614	363	34	640	337	94
LT Vol	28	110	0	0	34	0	0	20
Through Vol	5	0	614	307	0	640	320	15
RT Vol	30	0	0	56	0	0	17	59
Lane Flow Rate	66	115	640	378	35	667	351	98
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.158	0.225	1.165	0.677	0.07	1.233	0.646	0.226
Departure Headway (Hd)	9.138	7.367	6.858	6.748	7.412	6.904	6.868	8.783
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	395	490	537	541	486	533	530	411
Service Time	6.838	5.067	4.558	4.448	5.112	4.604	4.568	6.483
HCM Lane V/C Ratio	0.167	0.235	1.192	0.699	0.072	1.251	0.662	0.238
HCM Control Delay	13.5	12.2	117.2	22.4	10.7	143.1	21.2	14
HCM Lane LOS	B	B	F	C	B	F	C	B
HCM 95th-tile Q	0.6	0.9	21.5	5.1	0.2	24.9	4.6	0.9

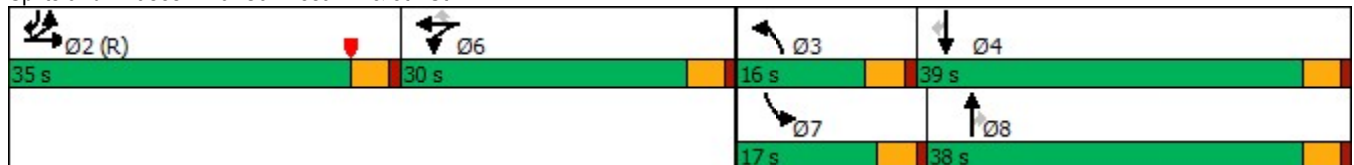
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	271	100	456	32	1140	413	237	37	391	538
Future Volume (vph)	214	271	100	456	32	1140	413	237	37	391	538
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	25.5	25.5	25.5	11.5	42.2	42.2	8.1	34.5	69.5
Actuated g/C Ratio	0.25	0.25	0.21	0.21	0.21	0.10	0.35	0.35	0.07	0.29	0.58
v/c Ratio	0.50	0.54	0.28	1.23	0.08	7.18	0.35	0.39	0.33	0.78	0.61
Control Delay	43.3	36.0	42.0	163.4	0.4	2800.4	31.2	16.4	59.9	50.6	18.0
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	43.3	36.0	42.0	163.4	0.4	2800.4	31.2	16.4	59.9	50.6	18.0
LOS	D	D	D	F	A	F	C	B	E	D	B
Approach Delay		38.3		134.0			1793.5			32.8	
Approach LOS		D		F			F			C	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 7.18  
 Intersection Signal Delay: 841.9  
 Intersection Capacity Utilization 135.0%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	271	145	100	456	32	1140	413	237	37	391	538
Future Volume (veh/h)	214	271	145	100	456	32	1140	413	237	37	391	538
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	223	295	154	106	485	34	1213	439	252	39	416	572
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	453	594	302	379	397	337	171	1255	560	54	538	859
Arrive On Green	0.25	0.25	0.25	0.21	0.21	0.21	0.10	0.35	0.35	0.03	0.29	0.29
Sat Flow, veh/h	1781	2338	1188	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	223	234	215	106	485	34	1213	439	252	39	416	572
Grp Sat Flow(s),veh/h/ln	1781	1870	1656	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	12.8	12.8	13.3	6.0	25.5	2.1	11.5	10.9	14.7	2.6	24.5	31.1
Cycle Q Clear(g_c), s	12.8	12.8	13.3	6.0	25.5	2.1	11.5	10.9	14.7	2.6	24.5	31.1
Prop In Lane	1.00		0.72	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	475	421	379	397	337	171	1255	560	54	538	859
V/C Ratio(X)	0.49	0.49	0.51	0.28	1.22	0.10	7.11	0.35	0.45	0.72	0.77	0.67
Avail Cap(c_a), veh/h	453	475	421	379	397	337	171	1255	560	186	538	859
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	38.2	38.2	38.3	39.6	47.2	38.0	54.3	28.7	29.9	57.7	39.2	19.7
Incr Delay (d2), s/veh	3.8	3.6	4.4	0.4	119.9	0.1	2759.8	0.8	2.6	16.5	10.4	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	6.1	6.4	5.9	2.7	25.1	0.8	136.0	4.8	5.9	1.4	12.6	18.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	41.8	42.7	40.0	167.1	38.2	2814.0	29.4	32.5	74.2	49.6	23.8
LnGrp LOS	D	D	D	D	F	D	F	C	C	E	D	C
Approach Vol, veh/h		672			625			1904			1027	
Approach Delay, s/veh		42.1			138.5			1803.9			36.1	
Approach LOS		D			F			F			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	16.0	39.0		30.0	8.1	46.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		15.3	13.5	33.1		27.5	4.6	16.7				
Green Ext Time (p_c), s		3.1	0.0	0.8		0.0	0.0	3.4				

Intersection Summary		
HCM 6th Ctrl Delay		848.3
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.



Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	343	698	29	301	788	499	29	10	163	385	13
Future Volume (vph)	343	698	29	301	788	499	29	10	163	385	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	18.3%	40.0%	40.0%	18.3%	40.0%	40.0%	41.7%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	6.5	19.5	19.5	6.5	19.5	19.5	20.5	20.5	20.5		20.5
Actuated g/C Ratio	0.11	0.32	0.32	0.11	0.32	0.32	0.34	0.34	0.34		0.34
v/c Ratio	1.89	0.64	0.05	1.66	0.72	0.72	0.10	0.02	0.26		1.50
Control Delay	442.2	20.3	0.2	343.6	22.2	13.6	14.7	13.3	4.0		253.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	442.2	20.3	0.2	343.6	22.2	13.6	14.7	13.3	4.0		253.0
LOS	F	C	A	F	C	B	B	B	A		F
Approach Delay		154.9			80.4			6.0			253.0
Approach LOS		F			F			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.89  
 Intersection Signal Delay: 135.6  
 Intersection Capacity Utilization 105.0%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service G

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	698	29	301	788	499	29	10	163	385	13	396
Future Volume (veh/h)	343	698	29	301	788	499	29	10	163	385	13	396
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	361	735	31	317	829	525	31	11	172	405	14	417
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	193	1155	515	193	1155	515	437	639	542	314	8	232
Arrive On Green	0.11	0.32	0.32	0.11	0.32	0.32	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	957	1870	1585	659	23	678
Grp Volume(v), veh/h	361	735	31	317	829	525	31	11	172	836	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	957	1870	1585	1360	0	0
Q Serve(g_s), s	6.5	10.6	0.8	6.5	12.3	19.5	0.0	0.2	4.8	20.3	0.0	0.0
Cycle Q Clear(g_c), s	6.5	10.6	0.8	6.5	12.3	19.5	1.4	0.2	4.8	20.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.48		0.50
Lane Grp Cap(c), veh/h	193	1155	515	193	1155	515	437	639	542	554	0	0
V/C Ratio(X)	1.87	0.64	0.06	1.64	0.72	1.02	0.07	0.02	0.32	1.51	0.00	0.00
Avail Cap(c_a), veh/h	193	1155	515	193	1155	515	437	639	542	554	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	17.2	13.9	26.8	17.8	20.2	13.5	13.1	14.6	21.5	0.0	0.0
Incr Delay (d2), s/veh	410.9	2.7	0.2	311.4	3.8	44.6	0.3	0.0	1.5	238.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.6	4.2	0.3	19.2	5.0	12.6	0.3	0.1	1.8	44.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	437.7	19.9	14.2	338.1	21.7	64.8	13.8	13.1	16.1	260.3	0.0	0.0
LnGrp LOS	F	B	B	F	C	F	B	B	B	F	A	A
Approach Vol, veh/h		1127			1671			214				836
Approach Delay, s/veh		153.6			95.3			15.6				260.3
Approach LOS		F			F			B				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	24.0		25.0	11.0	24.0		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	19.5		20.5	6.5	19.5		20.5				
Max Q Clear Time (g_c+I1), s	8.5	12.6		22.5	8.5	21.5		6.8				
Green Ext Time (p_c), s	0.0	2.8		0.0	0.0	0.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	143.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	34.8											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	1011	236	497	685	0	0	0	0	587	0	903
Future Vol, veh/h	0	1011	236	497	685	0	0	0	0	587	0	903
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1021	238	502	692	0	0	0	0	593	0	912
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	679.9	653.8	844.9
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	42%	39%
Vol Thru, %	81%	58%	0%
Vol Right, %	19%	0%	61%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1247	1182	1490
LT Vol	0	497	587
Through Vol	1011	685	0
RT Vol	236	0	903
Lane Flow Rate	1260	1194	1505
Geometry Grp	1	1	1
Degree of Util (X)	2.421	2.36	2.82
Departure Headway (Hd)	14.18	14.524	9.062
Convergence, Y/N	Yes	Yes	Yes
Cap	277	263	421
Service Time	12.18	12.524	7.062
HCM Lane V/C Ratio	4.549	4.54	3.575
HCM Control Delay	679.9	653.8	844.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	49.7	46.8	94.8

Intersection												
Intersection Delay, s/veh	668.8											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	559	1039	0	0	923	610	259	10	579	0	0	0
Future Vol, veh/h	559	1039	0	0	923	610	259	10	579	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	588	1094	0	0	972	642	273	11	609	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	1074.9	952.5	329.1
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	31%	35%	0%
Vol Thru, %	1%	65%	60%
Vol Right, %	68%	0%	40%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	848	1598	1533
LT Vol	259	559	0
Through Vol	10	1039	923
RT Vol	579	0	610
Lane Flow Rate	893	1682	1614
Geometry Grp	1	1	1
Degree of Util (X)	1.657	3.318	3.044
Departure Headway (Hd)	9.074	11.969	12.055
Convergence, Y/N	Yes	Yes	Yes
Cap	411	320	323
Service Time	7.074	9.969	10.055
HCM Lane V/C Ratio	2.173	5.256	4.997
HCM Control Delay	329.1	1074.9	952.5
HCM Lane LOS	F	F	F
HCM 95th-tile Q	38.9	91.3	80.5

Intersection						
Int Delay, s/veh	141.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	458	1160	1183	106	144	350
Future Vol, veh/h	458	1160	1183	106	144	350
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	498	1261	1286	115	157	380

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1401	0	-	0	3601 1344
Stage 1	-	-	-	-	1344 -
Stage 2	-	-	-	-	2257 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	~ 488	-	-	-	~ 6 ~ 186
Stage 1	-	-	-	-	243 -
Stage 2	-	-	-	-	~ 85 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	~ 488	-	-	-	0 ~ 186
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	~ 85 -

Approach	EB	WB	SB
HCM Control Delay, s	21.3	0	\$ 902.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 488	-	-	-	186
HCM Lane V/C Ratio	1.02	-	-	-	2.887
HCM Control Delay (s)	75.3	0	-	-	\$ 902.1
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	14.3	-	-	-	48.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	590.2
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	1019	2	0	1289	592	0
Future Vol, veh/h	1019	2	0	1289	592	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1096	2	0	1386	637	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	571.8	797.9	169.7
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1289	1021	592
LT Vol	0	1019	0
Through Vol	1289	0	592
RT Vol	0	2	0
Lane Flow Rate	1386	1098	637
Geometry Grp	1	1	1
Degree of Util (X)	2.707	2.205	1.236
Departure Headway (Hd)	10.478	9.56	13.089
Convergence, Y/N	Yes	Yes	Yes
Cap	360	395	286
Service Time	8.478	7.56	11.089
HCM Lane V/C Ratio	3.85	2.78	2.227
HCM Control Delay	797.9	571.8	169.7
HCM Lane LOS	F	F	F
HCM 95th-tile Q	77.8	61.8	16.1

Intersection						
Int Delay, s/veh	1328.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	598	582	299	721	479	195
Future Vol, veh/h	598	582	299	721	479	195
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	997	970	498	1202	798	325

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	3020	1099	0	0	1700
Stage 1	1099	-	-	-	-
Stage 2	1921	-	-	-	-
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	~ 15	~ 258	-	-	~ 374
Stage 1	~ 319	-	-	-	-
Stage 2	~ 126	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	0	~ 258	-	-	~ 374
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	~ 319	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, \$	3015.2	0	\$ 385.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	258	~ 374
HCM Lane V/C Ratio	-	-	7.623	2.135
HCM Control Delay (s)	-	-	\$ 3015.2	\$ 542.7
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	217	58.2

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	96.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	581	311	385	688	0	0	0	0	304	1	345
Future Vol, veh/h	0	581	311	385	688	0	0	0	0	304	1	345
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	660	353	438	782	0	0	0	0	330	1	375

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1013	0	0		2495	2671	782
Stage 1	-	-	-	-	-	-		1658	1658	-
Stage 2	-	-	-	-	-	-		837	1013	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	684	-	0		~ 32	22	394
Stage 1	0	-	-	-	-	0		~ 170	155	-
Stage 2	0	-	-	-	-	0		425	316	-
Platoon blocked, %		-	-	-						
Mov Cap-1 Maneuver	-	-	-	684	-	-		0	0	394
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 170	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	6.9	\$ 390.7
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	684	-	394
HCM Lane V/C Ratio	-	-	0.64	-	1.793
HCM Control Delay (s)	-	-	19.1	0	\$ 390.7
HCM Lane LOS	-	-	C	A	F
HCM 95th %tile Q(veh)	-	-	4.6	-	45

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	427.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	607	0	0	688	384	346
Future Vol, veh/h	607	0	0	688	384	346
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	660	0	0	748	417	376

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1408 660
Stage 1	-	-	-	-	660 -
Stage 2	-	-	-	-	748 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 153 463
Stage 1	-	0	0	-	514 -
Stage 2	-	0	0	-	468 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 153 463
Mov Cap-2 Maneuver	-	-	-	-	~ 153 -
Stage 1	-	-	-	-	514 -
Stage 2	-	-	-	-	468 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 1187.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	224	-	-
HCM Lane V/C Ratio	3.542	-	-
HCM Control Delay (s)	\$ 1187.1	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	75.1	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	501.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	128	800	110	34	832	133	94	51	39	130	72	117
Future Vol, veh/h	128	800	110	34	832	133	94	51	39	130	72	117
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	136	851	117	36	885	141	100	54	41	138	77	124
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	635.7	592.4	32.1	48.6
HCM LOS	F	F	D	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	51%	12%	3%	41%
Vol Thru, %	28%	77%	83%	23%
Vol Right, %	21%	11%	13%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	184	1038	999	319
LT Vol	94	128	34	130
Through Vol	51	800	832	72
RT Vol	39	110	133	117
Lane Flow Rate	196	1104	1063	339
Geometry Grp	1	1	1	1
Degree of Util (X)	0.488	2.346	2.248	0.767
Departure Headway (Hd)	15.313	10.005	10.139	12.996
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	239	375	372	282
Service Time	13.313	8.005	8.139	10.996
HCM Lane V/C Ratio	0.82	2.944	2.858	1.202
HCM Control Delay	32.1	635.7	592.4	48.6
HCM Lane LOS	D	F	F	E
HCM 95th-tile Q	2.5	65.4	60.3	5.8

Intersection							
Int Delay, s/veh	269.6						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	34	589	349	87	662	321	80
Future Vol, veh/h	34	589	349	87	662	321	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	37	620	367	92	697	338	84

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	987	0	1685	804
Stage 1	-	-	-	-	-	804	-
Stage 2	-	-	-	-	-	881	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	700	-	~ 103	383
Stage 1	-	-	-	-	-	440	-
Stage 2	-	-	-	-	-	405	-
Platoon blocked, %		-	-	-		-	
Mov Cap-1 Maneuver	-	-	-	700	-	~ 90	383
Mov Cap-2 Maneuver	-	-	-	-	-	~ 90	-
Stage 1	-	-	-	-	-	440	-
Stage 2	-	-	-	-	-	352	-

Approach	EB	WB	NB
HCM Control Delay, s		1.3	\$ 1424.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	106	-	-	700	-
HCM Lane V/C Ratio	3.982	-	-	0.131	-
HCM Control Delay (s)	\$ 1424.8	-	-	10.9	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	43.2	-	-	0.4	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	42	590	2	2	702	7	3	2	2	9	2	55
Future Vol, veh/h	42	590	2	2	702	7	3	2	2	9	2	55
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	648	2	2	771	8	3	2	2	10	2	60
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	16.6	22.1	10.6	10.9
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	43%	100%	0%	0%	100%	0%	0%	14%
Vol Thru, %	29%	0%	100%	99%	0%	100%	97%	3%
Vol Right, %	29%	0%	0%	1%	0%	0%	3%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	42	393	199	2	468	241	66
LT Vol	3	42	0	0	2	0	0	9
Through Vol	2	0	393	197	0	468	234	2
RT Vol	2	0	0	2	0	0	7	55
Lane Flow Rate	8	46	432	218	2	514	265	73
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.017	0.08	0.686	0.346	0.004	0.802	0.412	0.141
Departure Headway (Hd)	7.732	6.213	5.71	5.703	6.12	5.617	5.596	6.981
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	463	577	635	631	585	643	644	513
Service Time	5.485	3.946	3.443	3.436	3.852	3.348	3.328	4.727
HCM Lane V/C Ratio	0.017	0.08	0.68	0.345	0.003	0.799	0.411	0.142
HCM Control Delay	10.6	9.5	20	11.4	8.9	27.2	12.2	10.9
HCM Lane LOS	B	A	C	B	A	D	B	B
HCM 95th-tile Q	0.1	0.3	5.4	1.5	0	8	2	0.5

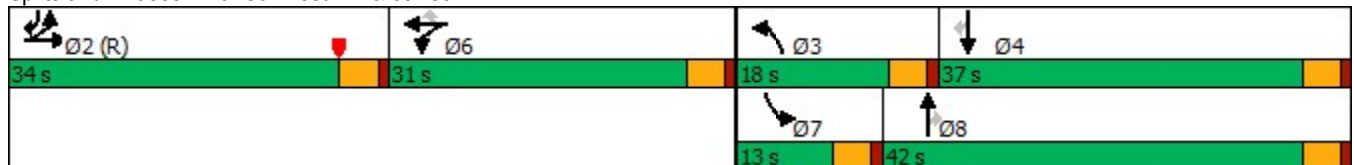
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	178	227	80	309	41	227	457	175	40	178	380
Future Volume (vph)	178	227	80	309	41	227	457	175	40	178	380
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	38.0	38.0	9.5	31.0	22.5
Total Split (s)	34.0	34.0	31.0	31.0	31.0	18.0	42.0	42.0	13.0	37.0	34.0
Total Split (%)	28.3%	28.3%	25.8%	25.8%	25.8%	15.0%	35.0%	35.0%	10.8%	30.8%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	29.5	29.5	24.7	24.7	24.7	15.3	42.2	42.2	7.6	32.5	66.5
Actuated g/C Ratio	0.25	0.25	0.21	0.21	0.21	0.13	0.35	0.35	0.06	0.27	0.55
v/c Ratio	0.40	0.40	0.24	0.89	0.10	1.11	0.40	0.31	0.39	0.39	0.45
Control Delay	41.6	38.2	40.9	71.0	0.5	140.3	32.0	17.0	64.1	38.4	12.6
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	41.6	38.2	40.9	71.0	0.5	140.3	32.0	17.0	64.1	38.4	12.6
LOS	D	D	D	E	A	F	C	B	E	D	B
Approach Delay		39.3		58.7			57.6			23.7	
Approach LOS		D		E			E			C	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.11  
 Intersection Signal Delay: 45.6  
 Intersection Capacity Utilization 63.6%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service B

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	227	36	80	309	41	227	457	175	40	178	380
Future Volume (veh/h)	178	227	36	80	309	41	227	457	175	40	178	380
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	162	297	40	88	340	45	249	502	192	44	196	418
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	859	115	358	376	318	200	1248	557	57	507	851
Arrive On Green	0.27	0.27	0.27	0.20	0.20	0.20	0.11	0.35	0.35	0.03	0.27	0.27
Sat Flow, veh/h	1781	3232	431	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	162	171	166	88	340	45	249	502	192	44	196	418
Grp Sat Flow(s),veh/h/ln	1781	1870	1793	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	8.8	8.8	9.0	5.0	21.3	2.8	13.5	12.8	10.7	2.9	10.2	19.9
Cycle Q Clear(g_c), s	8.8	8.8	9.0	5.0	21.3	2.8	13.5	12.8	10.7	2.9	10.2	19.9
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	473	497	476	358	376	318	200	1248	557	57	507	851
V/C Ratio(X)	0.34	0.34	0.35	0.25	0.90	0.14	1.24	0.40	0.34	0.77	0.39	0.49
Avail Cap(c_a), veh/h	473	497	476	393	413	350	200	1248	557	126	507	851
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(l)	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	35.6	35.6	35.7	40.3	46.8	39.4	53.3	29.4	28.7	57.6	35.6	17.5
Incr Delay (d2), s/veh	2.0	1.9	2.0	0.4	21.8	0.2	144.0	1.0	1.7	19.3	2.2	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	4.1	4.3	4.2	2.3	12.2	1.1	14.0	5.6	4.3	1.6	5.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	37.5	37.7	40.7	68.6	39.6	197.3	30.4	30.4	76.9	37.9	19.5
LnGrp LOS	D	D	D	D	E	D	F	C	C	E	D	B
Approach Vol, veh/h		499			473			943			658	
Approach Delay, s/veh		37.6			60.7			74.5			28.8	
Approach LOS		D			E			E			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.4	18.0	37.0		28.6	8.3	46.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	13.5	32.5		26.5	8.5	37.5				
Max Q Clear Time (g_c+I1), s		11.0	15.5	21.9		23.3	4.9	14.8				
Green Ext Time (p_c), s		2.3	0.0	2.0		0.8	0.0	4.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				53.1								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	316	502	50	300	502	358	28	4	174	408	13
Future Volume (vph)	316	502	50	300	502	358	28	4	174	408	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	12.0	24.0	24.0	11.0	23.0	23.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	20.0%	40.0%	40.0%	18.3%	38.3%	38.3%	41.7%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	7.5	19.5	19.5	6.5	18.5	18.5	20.5	20.5	20.5	20.5	20.5
Actuated g/C Ratio	0.12	0.32	0.32	0.11	0.31	0.31	0.34	0.34	0.34	0.34	0.34
v/c Ratio	1.52	0.46	0.09	1.67	0.49	0.52	0.08	0.01	0.28	0.28	1.32
Control Delay	281.6	17.7	1.1	348.0	18.8	5.8	14.2	13.2	4.0	4.0	180.1
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	281.6	17.7	1.1	348.0	18.8	5.8	14.2	13.2	4.0	4.0	180.1
LOS	F	B	A	F	B	A	B	B	A	A	F
Approach Delay		112.8			99.9			5.5			180.1
Approach LOS		F			F			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.67  
 Intersection Signal Delay: 115.1  
 Intersection Capacity Utilization 86.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	502	50	300	502	358	28	4	174	408	13	227
Future Volume (veh/h)	316	502	50	300	502	358	28	4	174	408	13	227
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	336	534	53	319	534	381	30	4	185	434	14	241
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	223	1155	515	193	1096	489	524	639	542	380	9	157
Arrive On Green	0.13	0.32	0.32	0.11	0.31	0.31	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1125	1870	1585	827	27	459
Grp Volume(v), veh/h	336	534	53	319	534	381	30	4	185	689	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1125	1870	1585	1312	0	0
Q Serve(g_s), s	7.5	7.2	1.4	6.5	7.3	13.1	0.0	0.1	5.2	20.4	0.0	0.0
Cycle Q Clear(g_c), s	7.5	7.2	1.4	6.5	7.3	13.1	1.0	0.1	5.2	20.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.63		0.35
Lane Grp Cap(c), veh/h	223	1155	515	193	1096	489	524	639	542	546	0	0
V/C Ratio(X)	1.51	0.46	0.10	1.65	0.49	0.78	0.06	0.01	0.34	1.26	0.00	0.00
Avail Cap(c_a), veh/h	223	1155	515	193	1096	489	524	639	542	546	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.2	16.1	14.1	26.8	16.9	18.9	13.3	13.0	14.7	21.6	0.0	0.0
Incr Delay (d2), s/veh	250.9	1.3	0.4	315.9	1.6	11.7	0.2	0.0	1.7	131.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	2.8	0.5	19.5	2.9	5.8	0.3	0.0	1.9	27.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	277.2	17.4	14.5	342.6	18.4	30.5	13.5	13.0	16.4	153.5	0.0	0.0
LnGrp LOS	F	B	B	F	B	C	B	B	B	F	A	A
Approach Vol, veh/h		923			1234			219			689	
Approach Delay, s/veh		111.8			106.0			16.0			153.5	
Approach LOS		F			F			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	24.0		25.0	12.0	23.0		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	19.5		20.5	7.5	18.5		20.5				
Max Q Clear Time (g_c+I1), s	8.5	9.2		22.5	9.5	15.1		7.2				
Green Ext Time (p_c), s	0.0	2.6		0.0	0.0	1.6		0.6				

Intersection Summary

HCM 6th Ctrl Delay	112.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.



**Intersection**

Intersection Delay, s/veh 495.2  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	866	203	312	561	0	0	0	0	486	3	571
Future Vol, veh/h	0	866	203	312	561	0	0	0	0	486	3	571
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	902	211	325	584	0	0	0	0	506	3	595
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	547	405.8	516.7
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	36%	46%
Vol Thru, %	81%	64%	0%
Vol Right, %	19%	0%	54%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1069	873	1060
LT Vol	0	312	486
Through Vol	866	561	3
RT Vol	203	0	571
Lane Flow Rate	1114	909	1104
Geometry Grp	1	1	1
Degree of Util (X)	2.14	1.814	2.086
Departure Headway (Hd)	11.054	11.816	8.759
Convergence, Y/N	Yes	Yes	Yes
Cap	345	318	431
Service Time	9.054	9.816	6.759
HCM Lane V/C Ratio	3.229	2.858	2.561
HCM Control Delay	547	405.8	516.7
HCM Lane LOS	F	F	F
HCM 95th-tile Q	51.5	36.7	61.1

Intersection												
Intersection Delay, s/veh	527.8											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	643	644	0	0	682	402	191	6	408	0	0	0
Future Vol, veh/h	643	644	0	0	682	402	191	6	408	0	0	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	649	651	0	0	689	406	193	6	412	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	735.2	511.7	115.3
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	32%	50%	0%
Vol Thru, %	1%	50%	63%
Vol Right, %	67%	0%	37%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	605	1287	1084
LT Vol	191	643	0
Through Vol	6	644	682
RT Vol	408	0	402
Lane Flow Rate	611	1300	1095
Geometry Grp	1	1	1
Degree of Util (X)	1.131	2.575	2.071
Departure Headway (Hd)	8.998	8.996	9.318
Convergence, Y/N	Yes	Yes	Yes
Cap	409	416	405
Service Time	6.998	6.996	7.318
HCM Lane V/C Ratio	1.494	3.125	2.704
HCM Control Delay	115.3	735.2	511.7
HCM Lane LOS	F	F	F
HCM 95th-tile Q	16.7	83.4	57

Intersection						
Int Delay, s/veh	818.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	337	717	709	104	92	321
Future Vol, veh/h	337	717	709	104	92	321
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	355	755	746	109	97	338

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	855	0	-	0	2266 801
Stage 1	-	-	-	-	801 -
Stage 2	-	-	-	-	1465 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	785	-	-	-	~ 45 384
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	212 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	785	-	-	-	~ 10 384
Mov Cap-2 Maneuver	-	-	-	-	~ 10 -
Stage 1	-	-	-	-	98 -
Stage 2	-	-	-	-	212 -

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	\$ 4509.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	785	-	-	-	41
HCM Lane V/C Ratio	0.452	-	-	-	-10.603
HCM Control Delay (s)	13.3	0	-	-	\$ 4509.2
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	2.4	-	-	-	52.3

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	43.1
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	538	6	0	289	296	0
Future Vol, veh/h	538	6	0	289	296	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	598	7	0	321	329	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	68.9	18.8	19.3
HCM LOS	F	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	289	544	296
LT Vol	0	538	0
Through Vol	289	0	296
RT Vol	0	6	0
Lane Flow Rate	321	604	329
Geometry Grp	1	1	1
Degree of Util (X)	0.587	1.026	0.6
Departure Headway (Hd)	6.721	6.112	6.704
Convergence, Y/N	Yes	Yes	Yes
Cap	539	586	543
Service Time	4.721	4.207	4.704
HCM Lane V/C Ratio	0.596	1.031	0.606
HCM Control Delay	18.8	68.9	19.3
HCM Lane LOS	C	F	C
HCM 95th-tile Q	3.8	15.9	3.9

Intersection						
Int Delay, s/veh	304.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	117	479	139	99	426	221
Future Vol, veh/h	117	479	139	99	426	221
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	40	40	40	40	40	40
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	293	1198	348	248	1065	553

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	3155	472	0	0	596
Stage 1	472	-	-	-	-
Stage 2	2683	-	-	-	-
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	~ 12	~ 592	-	-	~ 980
Stage 1	628	-	-	-	-
Stage 2	~ 51	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	0	~ 592	-	-	~ 980
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	628	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	703.6	0	49.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	592	~ 980
HCM Lane V/C Ratio	-	-	2.517	1.087
HCM Control Delay (s)	-	-	703.6	74.8
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	117	26

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**APPENDIX 7.2: HORIZON YEAR (2045) WITH PROJECT SCENARIO 1  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	87.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	680	447	580	589	0	0	0	0	336	0	350
Future Vol, veh/h	0	680	447	580	589	0	0	0	0	336	0	350
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	747	491	637	647	0	0	0	0	365	0	380

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	1238	0	0	2914	3159	647
Stage 1	-	-	-	-	-	-	1921	1921	-
Stage 2	-	-	-	-	-	-	993	1238	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	~ 563	-	0	~ 17	11	471
Stage 1	0	-	-	-	-	0	~ 126	114	-
Stage 2	0	-	-	-	-	0	~ 359	248	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	~ 563	-	-	0	0	471
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-
Stage 1	-	-	-	-	-	-	~ 126	0	-
Stage 2	-	-	-	-	-	-	0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	52.3	294.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	~ 563	-	471
HCM Lane V/C Ratio	-	-	1.132	-	1.583
HCM Control Delay (s)	-	-	105.5	0	294.4
HCM Lane LOS	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	20.8	-	41.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	466.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	754	0	0	859	309	349
Future Vol, veh/h	754	0	0	859	309	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	811	0	0	924	332	375

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1735 811
Stage 1	-	-	-	-	811 -
Stage 2	-	-	-	-	924 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~96 379
Stage 1	-	0	0	-	437 -
Stage 2	-	0	0	-	387 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~96 379
Mov Cap-2 Maneuver	-	-	-	-	~96 -
Stage 1	-	-	-	-	437 -
Stage 2	-	-	-	-	387 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 1608.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	159	-	-
HCM Lane V/C Ratio	4.45	-	-
HCM Control Delay (s)	\$ 1608.8	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	72.2	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	1011.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	188	832	183	42	1147	236	242	294	167	88	33	200
Future Vol, veh/h	188	832	183	42	1147	236	242	294	167	88	33	200
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	202	895	197	45	1233	254	260	316	180	95	35	215
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1110.3	1374.3	498.2	150.7
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	16%	3%	27%
Vol Thru, %	42%	69%	80%	10%
Vol Right, %	24%	15%	17%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	703	1203	1425	321
LT Vol	242	188	42	88
Through Vol	294	832	1147	33
RT Vol	167	183	236	200
Lane Flow Rate	756	1294	1532	345
Geometry Grp	1	1	1	1
Degree of Util (X)	1.949	3.339	3.941	0.893
Departure Headway (Hd)	23.84	22.963	20.678	41.087
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	159	181	199	93
Service Time	21.84	20.963	18.678	39.087
HCM Lane V/C Ratio	4.755	7.149	7.698	3.71
HCM Control Delay	498.2	1110.3	1374.3	150.7
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	22.8	49.8	67.8	4.9

Intersection						
Int Delay, s/veh	853.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	866	177	91	975	429	104
Future Vol, veh/h	866	177	91	975	429	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	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	884	181	93	995	438	106

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1065	0	2156 975
Stage 1	-	-	-	-	975 -
Stage 2	-	-	-	-	1181 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	654	-	~ 53 305
Stage 1	-	-	-	-	~ 366 -
Stage 2	-	-	-	-	~ 291 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	654	-	~ 45 305
Mov Cap-2 Maneuver	-	-	-	-	~ 45 -
Stage 1	-	-	-	-	~ 366 -
Stage 2	-	-	-	-	~ 250 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1	\$ 4226.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	54	-	-	654	-
HCM Lane V/C Ratio	10.072	-	-	0.142	-
HCM Control Delay (s)	\$ 4226.7	-	-	11.4	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	64.4	-	-	0.5	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	88.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↗		↵	↕↗			↕↗			↕↗	
Traffic Vol, veh/h	42	894	34	13	844	15	91	13	24	25	5	130
Future Vol, veh/h	42	894	34	13	844	15	91	13	24	25	5	130
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	941	36	14	888	16	96	14	25	26	5	137
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	105.1	94.1	17.4	17.2
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	71%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	10%	0%	100%	90%	0%	100%	95%	3%
Vol Right, %	19%	0%	0%	10%	0%	0%	5%	81%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	42	596	332	13	563	296	160
LT Vol	91	42	0	0	13	0	0	25
Through Vol	13	0	596	298	0	563	281	5
RT Vol	24	0	0	34	0	0	15	130
Lane Flow Rate	135	44	627	349	14	592	312	168
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.342	0.095	1.259	0.694	0.03	1.2	0.629	0.391
Departure Headway (Hd)	9.741	8.062	7.546	7.472	8.172	7.656	7.619	8.913
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	372	447	489	486	441	480	477	406
Service Time	7.441	5.762	5.246	5.172	5.872	5.356	5.319	6.613
HCM Lane V/C Ratio	0.363	0.098	1.282	0.718	0.032	1.233	0.654	0.414
HCM Control Delay	17.4	11.6	156.1	25.4	11.1	133.8	22.4	17.2
HCM Lane LOS	C	B	F	D	B	F	C	C
HCM 95th-tile Q	1.5	0.3	24.6	5.3	0.1	21.6	4.3	1.8

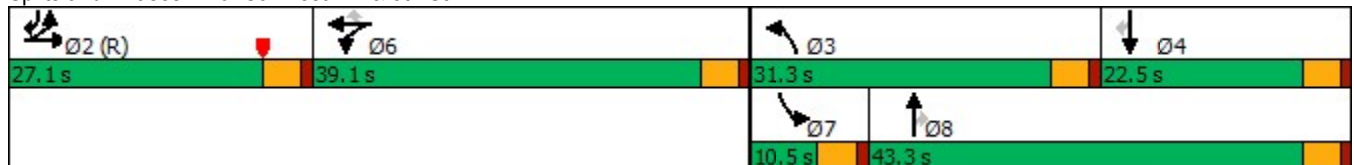
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	265	411	38	472	23	1110	540	234	28	172	497
Future Volume (vph)	265	411	38	472	23	1110	540	234	28	172	497
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	34.6	34.6	34.6	26.8	43.0	43.0	5.9	18.0	45.1
Actuated g/C Ratio	0.19	0.19	0.29	0.29	0.29	0.22	0.36	0.36	0.05	0.15	0.38
v/c Ratio	0.93	1.03	0.09	1.03	0.05	3.31	0.50	0.43	0.38	0.72	0.89
Control Delay	84.6	90.0	31.9	89.9	0.2	1061.3	32.7	20.4	68.1	64.4	47.3
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	84.6	90.0	31.9	89.9	0.2	1061.3	32.7	20.4	68.1	64.4	47.3
LOS	F	F	C	F	A	F	C	C	E	E	D
Approach Delay		88.4		81.9			637.4			52.4	
Approach LOS		F		F			F			D	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.31  
 Intersection Signal Delay: 345.5  
 Intersection LOS: F  
 Intersection Capacity Utilization 128.4%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	411	120	38	472	23	1110	540	234	28	172	497
Future Volume (veh/h)	265	411	120	38	472	23	1110	540	234	28	172	497
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	312	484	141	45	555	27	1306	635	275	33	202	585
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	525	152	514	539	457	398	1228	548	50	281	536
Arrive On Green	0.19	0.19	0.19	0.29	0.29	0.29	0.22	0.35	0.35	0.03	0.15	0.15
Sat Flow, veh/h	1781	2789	807	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	312	324	301	45	555	27	1306	635	275	33	202	585
Grp Sat Flow(s),veh/h/ln	1781	1870	1725	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	20.7	20.4	20.6	2.2	34.6	1.5	26.8	17.1	16.5	2.2	12.3	18.0
Cycle Q Clear(g_c), s	20.7	20.4	20.6	2.2	34.6	1.5	26.8	17.1	16.5	2.2	12.3	18.0
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	352	325	514	539	457	398	1228	548	50	281	536
V/C Ratio(X)	0.93	0.92	0.93	0.09	1.03	0.06	3.28	0.52	0.50	0.67	0.72	1.09
Avail Cap(c_a), veh/h	335	352	325	514	539	457	398	1228	548	89	281	536
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	47.9	47.8	47.9	31.2	42.7	30.9	46.6	31.3	31.1	57.8	48.6	32.2
Incr Delay (d2), s/veh	34.2	31.2	34.5	0.1	46.4	0.1	1033.8	1.6	3.3	14.3	14.8	65.9
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	12.3	12.5	11.9	1.0	22.9	0.6	125.9	7.5	6.7	1.2	6.9	26.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.1	79.0	82.4	31.2	89.1	31.0	1080.4	32.8	34.4	72.1	63.4	98.1
LnGrp LOS	F	E	F	C	F	C	F	C	C	E	E	F
Approach Vol, veh/h		937			627			2216			820	
Approach Delay, s/veh		81.1			82.5			650.4			88.5	
Approach LOS		F			F			F			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	31.3	22.5		39.1	7.8	46.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		22.7	28.8	20.0		36.6	4.2	19.1				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	5.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				356.9								
HCM 6th LOS				F								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

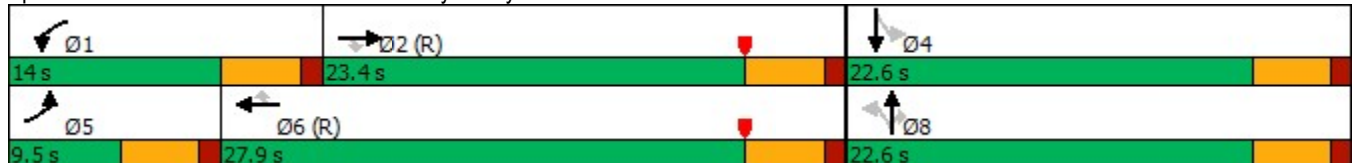
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	422	591	25	149	517	409	13	28	141	579	25
Future Volume (vph)	422	591	25	149	517	409	13	28	141	579	25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	23.4	23.4	14.0	27.9	27.9	22.6	22.6	22.6	22.6	22.6
Total Split (%)	15.8%	39.0%	39.0%	23.3%	46.5%	46.5%	37.7%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	21.8	21.8	8.9	23.4	23.4	18.1	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.08	0.36	0.36	0.15	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	3.16	0.51	0.04	0.63	0.41	0.51	0.04	0.06	0.26	0.26	2.23
Control Delay	1003.8	17.9	0.1	35.6	14.4	3.9	15.3	15.3	4.7	4.7	580.8
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	1003.8	17.9	0.1	35.6	14.4	3.9	15.3	15.3	4.7	4.7	580.8
LOS	F	B	A	D	B	A	B	B	A	A	F
Approach Delay		418.7			13.4			7.1			580.8
Approach LOS		F			B			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.16  
 Intersection Signal Delay: 306.5  
 Intersection Capacity Utilization 108.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service G

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	591	25	149	517	409	13	28	141	579	25	319
Future Volume (veh/h)	422	591	25	149	517	409	13	28	141	579	25	319
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	464	649	27	164	568	449	14	31	155	636	27	351
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1269	566	207	1386	618	476	564	478	338	10	133
Arrive On Green	0.08	0.36	0.36	0.12	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1005	1870	1585	797	34	440
Grp Volume(v), veh/h	464	649	27	164	568	449	14	31	155	1014	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1005	1870	1585	1271	0	0
Q Serve(g_s), s	5.0	8.6	0.7	5.4	7.0	14.5	0.0	0.7	4.5	17.4	0.0	0.0
Cycle Q Clear(g_c), s	5.0	8.6	0.7	5.4	7.0	14.5	0.5	0.7	4.5	18.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.63		0.35
Lane Grp Cap(c), veh/h	148	1269	566	207	1386	618	476	564	478	481	0	0
V/C Ratio(X)	3.13	0.51	0.05	0.79	0.41	0.73	0.03	0.05	0.32	2.11	0.00	0.00
Avail Cap(c_a), veh/h	148	1269	566	282	1386	618	476	564	478	481	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	15.2	12.6	25.8	13.3	15.6	14.8	14.9	16.2	23.1	0.0	0.0
Incr Delay (d2), s/veh	974.1	1.5	0.2	10.3	0.9	7.3	0.1	0.2	1.8	505.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.1	3.3	0.2	2.7	2.6	5.7	0.1	0.3	1.7	74.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1001.6	16.6	12.8	36.1	14.2	22.9	14.9	15.1	18.0	528.9	0.0	0.0
LnGrp LOS	F	B	B	D	B	C	B	B	B	F	A	A
Approach Vol, veh/h		1140			1181			200			1014	
Approach Delay, s/veh		417.5			20.5			17.3			528.9	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	25.9		22.6	9.5	27.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	18.9		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	7.4	10.6		20.1	7.0	16.5		6.5				
Green Ext Time (p_c), s	0.1	2.7		0.0	0.0	3.1		0.5				

Intersection Summary

HCM 6th Ctrl Delay	294.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.



<b>Intersection</b>												
Intersection Delay, s/veh	643.6											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	1094	219	506	580	0	0	0	0	440	0	496
Future Vol, veh/h	0	1094	219	506	580	0	0	0	0	440	0	496
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1176	235	544	624	0	0	0	0	473	0	533
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	805.1	626.1	437.2
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	47%	47%
Vol Thru, %	83%	53%	0%
Vol Right, %	17%	0%	53%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1313	1086	936
LT Vol	0	506	440
Through Vol	1094	580	0
RT Vol	219	0	496
Lane Flow Rate	1412	1168	1006
Geometry Grp	1	1	1
Degree of Util (X)	2.718	2.311	1.903
Departure Headway (Hd)	11.384	12.263	9.222
Convergence, Y/N	Yes	Yes	Yes
Cap	339	315	403
Service Time	9.384	10.263	7.222
HCM Lane V/C Ratio	4.165	3.708	2.496
HCM Control Delay	805.1	626.1	437.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	72.4	52.9	49.7

Intersection												
Intersection Delay, s/veh	866											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	778	756	0	0	881	652	204	12	544	0	0	0
Future Vol, veh/h	778	756	0	0	881	652	204	12	544	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	837	813	0	0	947	701	219	13	585	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	1051.7	977.5	266.2
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	27%	51%	0%
Vol Thru, %	2%	49%	57%
Vol Right, %	72%	0%	43%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	760	1534	1533
LT Vol	204	778	0
Through Vol	12	756	881
RT Vol	544	0	652
Lane Flow Rate	817	1649	1648
Geometry Grp	1	1	1
Degree of Util (X)	1.511	3.268	3.103
Departure Headway (Hd)	9.034	11.612	11.47
Convergence, Y/N	Yes	Yes	Yes
Cap	409	330	346
Service Time	7.034	9.612	9.47
HCM Lane V/C Ratio	1.998	4.997	4.763
HCM Control Delay	266.2	1051.7	977.5
HCM Lane LOS	F	F	F
HCM 95th-tile Q	32.4	92	86.7

Intersection						
Int Delay, s/veh	226.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	472	829	1099	182	101	434
Future Vol, veh/h	472	829	1099	182	101	434
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	549	964	1278	212	117	505

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1490	0	-	0	3446 1384
Stage 1	-	-	-	-	1384 -
Stage 2	-	-	-	-	2062 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	~ 451	-	-	-	~ 8 ~ 176
Stage 1	-	-	-	-	232 -
Stage 2	-	-	-	-	~ 107 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	~ 451	-	-	-	0 ~ 176
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	~ 107 -

Approach	EB	WB	SB
HCM Control Delay, s	52.2	0	\$ 1193.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 451	-	-	-	176
HCM Lane V/C Ratio	1.217	-	-	-	3.535
HCM Control Delay (s)	144	0	-	-	\$ 1193.9
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	21.7	-	-	-	59.7

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	615.9
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	585	3	0	1476	277	0
Future Vol, veh/h	585	3	0	1476	277	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	650	3	0	1640	308	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	146	913.5	27.7
HCM LOS	F	F	D

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1476	588	277
LT Vol	0	585	0
Through Vol	1476	0	277
RT Vol	0	3	0
Lane Flow Rate	1640	653	308
Geometry Grp	1	1	1
Degree of Util (X)	2.984	1.206	0.601
Departure Headway (Hd)	7.123	9.918	10.336
Convergence, Y/N	Yes	Yes	Yes
Cap	525	372	354
Service Time	5.123	7.918	8.336
HCM Lane V/C Ratio	3.124	1.755	0.87
HCM Control Delay	913.5	146	27.7
HCM Lane LOS	F	F	D
HCM 95th-tile Q	129.7	18.3	3.7

Intersection						
Int Delay, s/veh	556					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	311	232	252	571	531	245
Future Vol, veh/h	311	232	252	571	531	245
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	622	464	504	1142	1062	490

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	3689	1075	0	0	1646	0
Stage 1	1075	-	-	-	-	-
Stage 2	2614	-	-	-	-	-
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	~ 5	~ 267	-	-	~ 393	-
Stage 1	~ 328	-	-	-	-	-
Stage 2	~ 55	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	0	~ 267	-	-	~ 393	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	~ 328	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, \$	1416.5	0	\$ 543.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	267	~ 393
HCM Lane V/C Ratio	-	-	4.067	2.702
HCM Control Delay (s)	-	-	\$ 1416.5	\$ 794.5
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	106.2	88.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	2	4	692	8	15	222
Future Vol, veh/h	2	4	692	8	15	222
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	-	-	-	150	-
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	2	4	752	9	16	241

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1030	381	0	0	761
Stage 1	757	-	-	-	-
Stage 2	273	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	244	618	-	-	849
Stage 1	425	-	-	-	-
Stage 2	772	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	239	618	-	-	849
Mov Cap-2 Maneuver	343	-	-	-	-
Stage 1	425	-	-	-	-
Stage 2	757	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	488	849
HCM Lane V/C Ratio	-	-	0.013	0.019
HCM Control Delay (s)	-	-	12.5	9.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0.1

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	2	11	689	8	36	187
Future Vol, veh/h	2	11	689	8	36	187
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	-	-	-	150	-
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	2	12	749	9	39	203

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1035	379	0	0	758
Stage 1	754	-	-	-	-
Stage 2	281	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	242	620	-	-	851
Stage 1	426	-	-	-	-
Stage 2	766	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	231	620	-	-	851
Mov Cap-2 Maneuver	339	-	-	-	-
Stage 1	426	-	-	-	-
Stage 2	731	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	550	851
HCM Lane V/C Ratio	-	-	0.026	0.046
HCM Control Delay (s)	-	-	11.7	9.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	26	60	636	24	51	140
Future Vol, veh/h	26	60	636	24	51	140
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	-	-	-	150	-
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	28	65	691	26	55	152

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	966	359	0	0	717
Stage 1	704	-	-	-	-
Stage 2	262	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	267	638	-	-	882
Stage 1	453	-	-	-	-
Stage 2	781	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	250	638	-	-	882
Mov Cap-2 Maneuver	359	-	-	-	-
Stage 1	453	-	-	-	-
Stage 2	733	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	517	882
HCM Lane V/C Ratio	-	-	0.181	0.063
HCM Control Delay (s)	-	-	13.5	9.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2



Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	18	27	633	19	29	137
Future Vol, veh/h	18	27	633	19	29	137
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	-	-	-	150	-
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	20	29	688	21	32	149

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	912	355	0	0	709	0
Stage 1	699	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	288	642	-	-	888	-
Stage 1	455	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	278	642	-	-	888	-
Mov Cap-2 Maneuver	374	-	-	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	792	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	499	888
HCM Lane V/C Ratio	-	-	0.098	0.035
HCM Control Delay (s)	-	-	13	9.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	13	22	630	4	8	148
Future Vol, veh/h	13	22	630	4	8	148
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	-	-	-	150	-
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	14	24	685	4	9	161

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	866	345	0	0	689
Stage 1	687	-	-	-	-
Stage 2	179	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	308	652	-	-	903
Stage 1	462	-	-	-	-
Stage 2	851	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	305	652	-	-	903
Mov Cap-2 Maneuver	305	-	-	-	-
Stage 1	462	-	-	-	-
Stage 2	842	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	458	903
HCM Lane V/C Ratio	-	-	0.083	0.01
HCM Control Delay (s)	-	-	13.6	9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection												
Int Delay, s/veh	783.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	1114	652	483	1144	0	0	0	0	675	0	644
Future Vol, veh/h	0	1114	652	483	1144	0	0	0	0	675	0	644
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1224	716	531	1257	0	0	0	0	734	0	700

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1940	0	0		3901	4259	1257
Stage 1	-	-	-	-	-	-		2319	2319	-
Stage 2	-	-	-	-	-	-		1582	1940	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	~ 302	-	0		~ 4	2	~ 209
Stage 1	0	-	-	-	-	0		~ 79	72	-
Stage 2	0	-	-	-	-	0		~ 186	112	-
Platoon blocked, %		-	-	-						
Mov Cap-1 Maneuver	-	-	-	~ 302	-	-		0	0	~ 209
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 79	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	113.9	\$ 2679.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	~ 302	-	209
HCM Lane V/C Ratio	-	-	1.758	-	6.86
HCM Control Delay (s)	-	-	\$ 383.5	\$ 2679.1	
HCM Lane LOS	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	34.4	-	156.5

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	3254.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	1110	0	0	910	717	645
Future Vol, veh/h	1110	0	0	910	717	645
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	1207	0	0	989	779	701

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	2196 1207
Stage 1	-	-	-	-	1207 -
Stage 2	-	-	-	-	989 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 50 ~ 223
Stage 1	-	0	0	-	~ 283 -
Stage 2	-	0	0	-	~ 360 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 50 ~ 223
Mov Cap-2 Maneuver	-	-	-	-	~ 50 -
Stage 1	-	-	-	-	~ 283 -
Stage 2	-	-	-	-	~ 360 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 8081.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	79	-	-
HCM Lane V/C Ratio	18.74	-	-
HCM Control Delay (s)	\$ 8081.3	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	178.3	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	1282.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	174	1301	350	88	1121	112	320	75	53	225	141	268
Future Vol, veh/h	174	1301	350	88	1121	112	320	75	53	225	141	268
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	179	1341	361	91	1156	115	330	77	55	232	145	276
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1847.3	1253.8	273.5	430.2
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	71%	10%	7%	35%
Vol Thru, %	17%	71%	85%	22%
Vol Right, %	12%	19%	8%	42%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	448	1825	1321	634
LT Vol	320	174	88	225
Through Vol	75	1301	1121	141
RT Vol	53	350	112	268
Lane Flow Rate	462	1881	1362	654
Geometry Grp	1	1	1	1
Degree of Util (X)	1.245	4.983	3.629	1.716
Departure Headway (Hd)	45.881	23.277	28.98	35.345
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	83	188	150	111
Service Time	43.881	21.277	26.98	33.345
HCM Lane V/C Ratio	5.566	10.005	9.08	5.892
HCM Control Delay	273.5	1847.3	1253.8	430.2
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	7.4	80.6	44.6	13.8

**Intersection**

Int Delay, s/veh 1102.1

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	173	968	486	166	890	290	130
Future Vol, veh/h	173	968	486	166	890	290	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	188	1019	512	175	937	305	137

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	-	0	0 1531
Stage 1	-	-	- 1275
Stage 2	-	-	- 1287
Critical Hdwy	-	-	4.12 - 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	-	-	- 2.218 - 3.518 3.318
Pot Cap-1 Maneuver	-	-	- 435 - ~29 204
Stage 1	-	-	- - ~263 -
Stage 2	-	-	- - ~259 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- 435 - ~17 204
Mov Cap-2 Maneuver	-	-	- - ~17 -
Stage 1	-	-	- - ~263 -
Stage 2	-	-	- - ~155 -

Approach	EB	WB	NB
HCM Control Delay, s		2.9	\$ 8150
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	24	-	-	435	-
HCM Lane V/C Ratio	18.421	-	-	0.402	-
HCM Control Delay (s)	\$ 8150	-	-	18.7	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	55.3	-	-	1.9	-

**Notes**  
~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	84.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶↷			↷↶			↷↶	
Traffic Vol, veh/h	110	932	56	34	969	17	28	5	30	20	15	59
Future Vol, veh/h	110	932	56	34	969	17	28	5	30	20	15	59
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	115	971	58	35	1009	18	29	5	31	21	16	61
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	78.6	101.7	13.6	14.1
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	44%	100%	0%	0%	100%	0%	0%	21%
Vol Thru, %	8%	0%	100%	85%	0%	100%	95%	16%
Vol Right, %	48%	0%	0%	15%	0%	0%	5%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	63	110	621	367	34	646	340	94
LT Vol	28	110	0	0	34	0	0	20
Through Vol	5	0	621	311	0	646	323	15
RT Vol	30	0	0	56	0	0	17	59
Lane Flow Rate	66	115	647	382	35	673	354	98
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.158	0.225	1.181	0.685	0.071	1.247	0.653	0.227
Departure Headway (Hd)	9.175	7.387	6.878	6.769	7.432	6.924	6.888	8.819
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	393	489	531	539	485	532	528	409
Service Time	6.875	5.087	4.578	4.469	5.132	4.624	4.588	6.519
HCM Lane V/C Ratio	0.168	0.235	1.218	0.709	0.072	1.265	0.67	0.24
HCM Control Delay	13.6	12.2	123.2	22.9	10.7	148.7	21.6	14.1
HCM Lane LOS	B	B	F	C	B	F	C	B
HCM 95th-tile Q	0.6	0.9	22.3	5.2	0.2	25.6	4.7	0.9

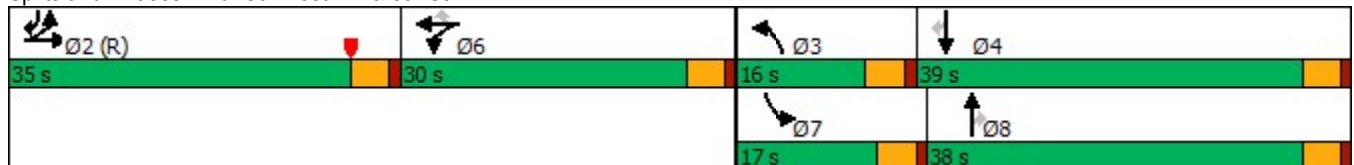
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	271	104	456	32	1140	424	239	37	400	538
Future Volume (vph)	214	271	104	456	32	1140	424	239	37	400	538
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	25.5	25.5	25.5	11.5	42.2	42.2	8.1	34.5	69.5
Actuated g/C Ratio	0.25	0.25	0.21	0.21	0.21	0.10	0.35	0.35	0.07	0.29	0.58
v/c Ratio	0.50	0.54	0.30	1.23	0.08	7.18	0.36	0.40	0.33	0.80	0.61
Control Delay	43.3	36.0	42.3	163.4	0.4	2800.4	31.4	16.8	59.9	51.9	18.0
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	43.3	36.0	42.3	163.4	0.4	2800.4	31.4	16.8	59.9	51.9	18.0
LOS	D	D	D	F	A	F	C	B	E	D	B
Approach Delay		38.3		133.3			1780.7			33.5	
Approach LOS		D		F			F			C	

Intersection Summary
























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 7.18  
 Intersection Signal Delay: 836.6  
 Intersection Capacity Utilization 135.4%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.





HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	271	145	104	456	32	1140	424	239	37	400	538
Future Volume (veh/h)	214	271	145	104	456	32	1140	424	239	37	400	538
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	223	295	154	111	485	34	1213	451	254	39	426	572
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	453	594	302	379	397	337	171	1255	560	54	538	859
Arrive On Green	0.25	0.25	0.25	0.21	0.21	0.21	0.10	0.35	0.35	0.03	0.29	0.29
Sat Flow, veh/h	1781	2338	1188	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	223	234	215	111	485	34	1213	451	254	39	426	572
Grp Sat Flow(s),veh/h/ln	1781	1870	1656	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	12.8	12.8	13.3	6.3	25.5	2.1	11.5	11.3	14.8	2.6	25.2	31.1
Cycle Q Clear(g_c), s	12.8	12.8	13.3	6.3	25.5	2.1	11.5	11.3	14.8	2.6	25.2	31.1
Prop In Lane	1.00		0.72	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	475	421	379	397	337	171	1255	560	54	538	859
V/C Ratio(X)	0.49	0.49	0.51	0.29	1.22	0.10	7.11	0.36	0.45	0.72	0.79	0.67
Avail Cap(c_a), veh/h	453	475	421	379	397	337	171	1255	560	186	538	859
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(l)	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	38.2	38.2	38.3	39.7	47.2	38.0	54.3	28.8	29.9	57.7	39.4	19.7
Incr Delay (d2), s/veh	3.8	3.6	4.4	0.4	119.9	0.1	2759.8	0.8	2.6	16.5	11.4	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	6.1	6.4	5.9	2.8	25.1	0.8	136.0	4.9	6.0	1.4	13.1	18.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	41.8	42.7	40.1	167.1	38.2	2814.0	29.6	32.6	74.2	50.8	23.8
LnGrp LOS	D	D	D	D	F	D	F	C	C	E	D	C
Approach Vol, veh/h		672			630			1918			1037	
Approach Delay, s/veh		42.1			137.8			1790.9			36.8	
Approach LOS		D			F			F			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	16.0	39.0		30.0	8.1	46.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		15.3	13.5	33.1		27.5	4.6	16.8				
Green Ext Time (p_c), s		3.1	0.0	0.8		0.0	0.0	3.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	842.9											
HCM 6th LOS	F											
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

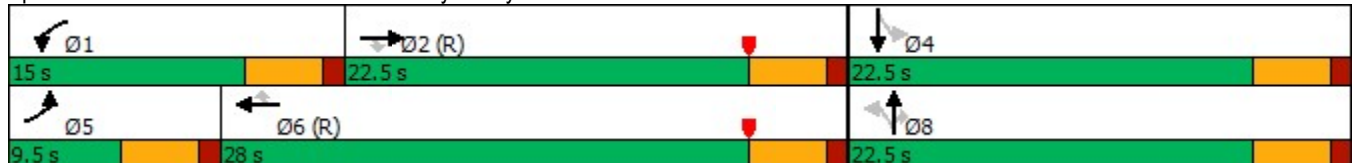
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	343	705	29	301	798	500	29	10	163	386	13
Future Volume (vph)	343	705	29	301	798	500	29	10	163	386	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0		18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30		0.30
v/c Ratio	2.46	0.70	0.05	1.03	0.61	0.63	0.11	0.02	0.28		1.68
Control Delay	694.2	22.8	0.2	87.6	16.8	8.8	16.7	15.0	3.8		337.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	694.2	22.8	0.2	87.6	16.8	8.8	16.7	15.0	3.8		337.1
LOS	F	C	A	F	B	A	B	B	A		F
Approach Delay		235.9			27.7			6.3			337.1
Approach LOS		F			C			A			F

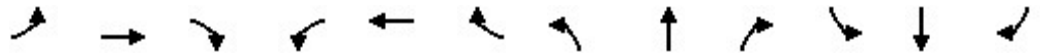
Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.46  
 Intersection Signal Delay: 154.5  
 Intersection LOS: F  
 Intersection Capacity Utilization 105.3%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	705	29	301	798	500	29	10	163	386	13	396
Future Volume (veh/h)	343	705	29	301	798	500	29	10	163	386	13	396
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	361	742	31	317	840	526	31	11	172	406	14	417
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	1066	476	312	1392	621	402	561	476	286	7	203
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	957	1870	1585	658	23	676
Grp Volume(v), veh/h	361	742	31	317	840	526	31	11	172	837	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	957	1870	1585	1356	0	0
Q Serve(g_s), s	5.0	11.1	0.8	10.5	11.3	18.1	0.0	0.2	5.1	17.8	0.0	0.0
Cycle Q Clear(g_c), s	5.0	11.1	0.8	10.5	11.3	18.1	1.4	0.2	5.1	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.49		0.50
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	402	561	476	496	0	0
V/C Ratio(X)	2.43	0.70	0.07	1.02	0.60	0.85	0.08	0.02	0.36	1.69	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	402	561	476	496	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	18.6	15.0	24.8	14.5	16.6	15.2	14.8	16.5	22.7	0.0	0.0
Incr Delay (d2), s/veh	664.3	3.8	0.3	55.4	1.9	13.5	0.4	0.1	2.1	318.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.4	4.6	0.3	8.8	4.2	7.8	0.3	0.1	2.0	50.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	691.8	22.3	15.3	80.1	16.5	30.1	15.6	14.9	18.6	340.8	0.0	0.0
LnGrp LOS	F	C	B	F	B	C	B	B	B	F	A	A
Approach Vol, veh/h		1134			1683			214				837
Approach Delay, s/veh		235.3			32.7			18.0				340.8
Approach LOS		F			C			B				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	12.5	13.1		20.0	7.0	20.1		7.1				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	2.2		0.5				

Intersection Summary

HCM 6th Ctrl Delay	158.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	758.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	1020	236	566	696	0	0	0	0	587	0	903
Future Vol, veh/h	0	1020	236	566	696	0	0	0	0	587	0	903
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1030	238	572	703	0	0	0	0	593	0	912
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	688.3	725.8	845
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	45%	39%
Vol Thru, %	81%	55%	0%
Vol Right, %	19%	0%	61%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1256	1262	1490
LT Vol	0	566	587
Through Vol	1020	696	0
RT Vol	236	0	903
Lane Flow Rate	1269	1275	1505
Geometry Grp	1	1	1
Degree of Util (X)	2.438	2.522	2.82
Departure Headway (Hd)	14.511	14.565	9.113
Convergence, Y/N	Yes	Yes	Yes
Cap	266	268	421
Service Time	12.511	12.565	7.113
HCM Lane V/C Ratio	4.771	4.757	3.575
HCM Control Delay	688.3	725.8	845
HCM Lane LOS	F	F	F
HCM 95th-tile Q	49.2	51.6	94.3

Intersection												
Intersection Delay, s/veh	107.1											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	559	1048	0	0	1002	610	259	10	647	0	0	0
Future Vol, veh/h	559	1048	0	0	1002	610	259	10	647	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	588	1103	0	0	1055	642	273	11	681	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	1085.1	1026.6	384.6
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	28%	35%	0%
Vol Thru, %	1%	65%	62%
Vol Right, %	71%	0%	38%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	916	1607	1612
LT Vol	259	559	0
Through Vol	10	1048	1002
RT Vol	647	0	610
Lane Flow Rate	964	1692	1697
Geometry Grp	1	1	1
Degree of Util (X)	1.785	3.337	3.207
Departure Headway (Hd)	8.997	12.648	12.531
Convergence, Y/N	Yes	Yes	Yes
Cap	415	304	305
Service Time	6.997	10.648	10.531
HCM Lane V/C Ratio	2.323	5.566	5.564
HCM Control Delay	384.6	1085.1	1026.6
HCM Lane LOS	F	F	F
HCM 95th-tile Q	45.2	87.2	83.4

Intersection						
Int Delay, s/veh	208.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	535	1160	1183	115	155	429
Future Vol, veh/h	535	1160	1183	115	155	429
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	582	1261	1286	125	168	466

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1411	0	-	0	3774 1349
Stage 1	-	-	-	-	1349 -
Stage 2	-	-	-	-	2425 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	~ 483	-	-	-	~ 5 ~ 184
Stage 1	-	-	-	-	242 -
Stage 2	-	-	-	-	~ 69 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	~ 483	-	-	-	0 ~ 184
Mov Cap-2 Maneuver		-	-	-	0 -
Stage 1		-	-	-	0 -
Stage 2		-	-	-	~ 69 -

Approach	EB	WB	SB
HCM Control Delay, s	43.2	0	\$ 1153.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 483	-	-	-	184
HCM Lane V/C Ratio	1.204	-	-	-	3.45
HCM Control Delay (s)	136.7	0	-	-	\$ 1153.9
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	22.2	-	-	-	60.3

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	596.8
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	1019	2	0	1302	604	0
Future Vol, veh/h	1019	2	0	1302	604	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1096	2	0	1400	649	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	571.9	810.1	179.3
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1302	1021	604
LT Vol	0	1019	0
Through Vol	1302	0	604
RT Vol	0	2	0
Lane Flow Rate	1400	1098	649
Geometry Grp	1	1	1
Degree of Util (X)	2.734	2.205	1.261
Departure Headway (Hd)	10.522	9.592	13.137
Convergence, Y/N	Yes	Yes	Yes
Cap	364	395	286
Service Time	8.522	7.592	11.137
HCM Lane V/C Ratio	3.846	2.78	2.269
HCM Control Delay	810.1	571.9	179.3
HCM Lane LOS	F	F	F
HCM 95th-tile Q	78.6	61.6	16.7

Intersection						
Int Delay, s/veh	1331.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	599	583	299	722	480	195
Future Vol, veh/h	599	583	299	722	480	195
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	998	972	498	1203	800	325

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	3025	1100	0	0	1701
Stage 1	1100	-	-	-	-
Stage 2	1925	-	-	-	-
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	~ 14	~ 258	-	-	~ 374
Stage 1	~ 319	-	-	-	-
Stage 2	~ 125	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	0	~ 258	-	-	~ 374
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	~ 319	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 3021	0	\$ 387.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	258	~ 374
HCM Lane V/C Ratio	-	-	7.636	2.139
HCM Control Delay (s)	-	-	\$ 3021	\$ 544.7
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	217.4	58.4

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	10	18	374	4	7	527
Future Vol, veh/h	10	18	374	4	7	527
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	-	-	-	150	-
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	11	20	407	4	8	573

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	998	206	0	0	411
Stage 1	409	-	-	-	-
Stage 2	589	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	255	801	-	-	1146
Stage 1	640	-	-	-	-
Stage 2	553	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	253	801	-	-	1146
Mov Cap-2 Maneuver	384	-	-	-	-
Stage 1	640	-	-	-	-
Stage 2	549	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	577	1146
HCM Lane V/C Ratio	-	-	0.053	0.007
HCM Control Delay (s)	-	-	11.6	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	10	46	330	4	18	519
Future Vol, veh/h	10	46	330	4	18	519
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	-	-	-	150	-
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	11	50	359	4	20	564

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	965	182	0	0	363
Stage 1	361	-	-	-	-
Stage 2	604	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	267	830	-	-	1194
Stage 1	677	-	-	-	-
Stage 2	545	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	262	830	-	-	1194
Mov Cap-2 Maneuver	390	-	-	-	-
Stage 1	677	-	-	-	-
Stage 2	536	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	691	1194
HCM Lane V/C Ratio	-	-	0.088	0.016
HCM Control Delay (s)	-	-	10.7	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	35	77	256	42	98	433
Future Vol, veh/h	35	77	256	42	98	433
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	-	-	-	150	-
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	38	84	278	46	107	471

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	986	162	0	0	324
Stage 1	301	-	-	-	-
Stage 2	685	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	259	855	-	-	1234
Stage 1	725	-	-	-	-
Stage 2	499	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	236	855	-	-	1234
Mov Cap-2 Maneuver	354	-	-	-	-
Stage 1	725	-	-	-	-
Stage 2	456	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	593	1234
HCM Lane V/C Ratio	-	-	0.205	0.086
HCM Control Delay (s)	-	-	12.6	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0.3

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	41	257	21	32	436
Future Vol, veh/h	27	41	257	21	32	436
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	-	-	-	150	-
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	29	45	279	23	35	474

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	835	151	0	0	302
Stage 1	291	-	-	-	-
Stage 2	544	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	322	869	-	-	1257
Stage 1	734	-	-	-	-
Stage 2	581	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	313	869	-	-	1257
Mov Cap-2 Maneuver	430	-	-	-	-
Stage 1	734	-	-	-	-
Stage 2	565	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	618	1257
HCM Lane V/C Ratio	-	-	0.12	0.028
HCM Control Delay (s)	-	-	11.6	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	8	20	259	14	29	434
Future Vol, veh/h	8	20	259	14	29	434
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	-	-	-	150	-
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	9	22	282	15	32	472

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	826	149	0	0	297
Stage 1	290	-	-	-	-
Stage 2	536	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	326	871	-	-	1263
Stage 1	735	-	-	-	-
Stage 2	586	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	318	871	-	-	1263
Mov Cap-2 Maneuver	318	-	-	-	-
Stage 1	735	-	-	-	-
Stage 2	571	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	582	1263
HCM Lane V/C Ratio	-	-	0.052	0.025
HCM Control Delay (s)	-	-	11.5	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

**APPENDIX 7.3: HORIZON YEAR (2045) WITH PROJECT SCENARIO 2  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	154.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	694	447	648	607	0	0	0	0	490	0	350
Future Vol, veh/h	0	694	447	648	607	0	0	0	0	490	0	350
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	763	491	712	667	0	0	0	0	533	0	380

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1254	0	0		3100	3345	667
Stage 1	-	-	-	-	-	-		2091	2091	-
Stage 2	-	-	-	-	-	-		1009	1254	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	~ 555	-	0		~ 13	8	459
Stage 1	0	-	-	-	-	0		~ 103	94	-
Stage 2	0	-	-	-	-	0		~ 352	243	-
Platoon blocked, %	-	-	-	-	-	-		-	-	-
Mov Cap-1 Maneuver	-	-	-	~ 555	-	-		0	0	459
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 103	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	84.4	\$ 473.2
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	~ 555	-	459
HCM Lane V/C Ratio	-	-	1.283	-	1.989
HCM Control Delay (s)	-	-	163.5	0	\$ 473.2
HCM Lane LOS	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	28.9	-	62.3

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	706.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	923	0	0	945	309	402
Future Vol, veh/h	923	0	0	945	309	402
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	992	0	0	1016	332	432

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	2008 992
Stage 1	-	-	-	-	992 -
Stage 2	-	-	-	-	1016 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 65 ~ 298
Stage 1	-	0	0	-	359 -
Stage 2	-	0	0	-	350 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 65 ~ 298
Mov Cap-2 Maneuver	-	-	-	-	~ 65 -
Stage 1	-	-	-	-	359 -
Stage 2	-	-	-	-	350 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 2562
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	117	-	-
HCM Lane V/C Ratio	6.534	-	-
HCM Control Delay (s)	\$ 2562	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	84.3	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	1199.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	188	832	404	56	1147	236	527	312	185	88	47	200
Future Vol, veh/h	188	832	404	56	1147	236	527	312	185	88	47	200
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	202	895	434	60	1233	254	567	335	199	95	51	215
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1401.6	1429.6	917.8	216.4
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	51%	13%	4%	26%
Vol Thru, %	30%	58%	80%	14%
Vol Right, %	18%	28%	16%	60%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1024	1424	1439	335
LT Vol	527	188	56	88
Through Vol	312	832	1147	47
RT Vol	185	404	236	200
Lane Flow Rate	1101	1531	1547	360
Geometry Grp	1	1	1	1
Degree of Util (X)	2.887	3.956	4.02	0.928
Departure Headway (Hd)	26.673	29.734	29.469	64.564
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	154	138	139	61
Service Time	24.673	27.734	27.469	62.564
HCM Lane V/C Ratio	7.149	11.094	11.129	5.902
HCM Control Delay	917.8	1401.6	1429.6	216.4
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	35.9	48.4	49.8	4.2

Intersection							
Int Delay, s/veh	867.9						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	31	884	177	91	989	429	104
Future Vol, veh/h	31	884	177	91	989	429	104
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	34	902	181	93	1009	438	106

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	1083	0	2188	993
Stage 1	-	-	-	-	-	993	-
Stage 2	-	-	-	-	-	1195	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	644	-	~ 50	298
Stage 1	-	-	-	-	-	~ 359	-
Stage 2	-	-	-	-	-	~ 287	-
Platoon blocked, %		-	-	-		-	
Mov Cap-1 Maneuver	-	-	-	644	-	~ 43	298
Mov Cap-2 Maneuver	-	-	-	-	-	~ 43	-
Stage 1	-	-	-	-	-	~ 359	-
Stage 2	-	-	-	-	-	~ 246	-

Approach	EB	WB	NB
HCM Control Delay, s		1	\$ 4406.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	52	-	-	644	-
HCM Lane V/C Ratio	10.459	-	-	0.144	-
HCM Control Delay (s)	\$ 4406.1	-	-	11.5	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	64.6	-	-	0.5	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	93.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶↷			↷			↷	
Traffic Vol, veh/h	42	912	34	13	858	15	91	13	24	25	5	130
Future Vol, veh/h	42	912	34	13	858	15	91	13	24	25	5	130
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	960	36	14	903	16	96	14	25	26	5	137
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	110.9	99	17.5	17.3
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	71%	100%	0%	0%	100%	0%	0%	16%
Vol Thru, %	10%	0%	100%	90%	0%	100%	95%	3%
Vol Right, %	19%	0%	0%	10%	0%	0%	5%	81%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	42	608	338	13	572	301	160
LT Vol	91	42	0	0	13	0	0	25
Through Vol	13	0	608	304	0	572	286	5
RT Vol	24	0	0	34	0	0	15	130
Lane Flow Rate	135	44	640	356	14	602	317	168
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.342	0.095	1.281	0.705	0.03	1.219	0.638	0.391
Departure Headway (Hd)	9.788	8.08	7.565	7.492	8.192	7.676	7.64	8.961
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	446	486	487	440	476	475	404
Service Time	7.488	5.78	5.265	5.192	5.892	5.376	5.34	6.661
HCM Lane V/C Ratio	0.366	0.099	1.317	0.731	0.032	1.265	0.667	0.416
HCM Control Delay	17.5	11.6	164.9	26.2	11.1	141.1	22.8	17.3
HCM Lane LOS	C	B	F	D	B	F	C	C
HCM 95th-tile Q	1.5	0.3	25.6	5.5	0.1	22.4	4.4	1.8

Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	265	411	38	472	23	1110	558	234	28	186	497
Future Volume (vph)	265	411	38	472	23	1110	558	234	28	186	497
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.1	27.1	39.1	39.1	39.1	31.3	43.3	43.3	10.5	22.5	27.1
Total Split (%)	22.6%	22.6%	32.6%	32.6%	32.6%	26.1%	36.1%	36.1%	8.8%	18.8%	22.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	22.6	22.6	34.6	34.6	34.6	26.8	43.0	43.0	5.9	18.0	45.1
Actuated g/C Ratio	0.19	0.19	0.29	0.29	0.29	0.22	0.36	0.36	0.05	0.15	0.38
v/c Ratio	0.93	1.03	0.09	1.03	0.05	3.31	0.52	0.43	0.38	0.78	0.89
Control Delay	84.6	90.0	31.9	89.9	0.2	1061.3	33.0	20.9	68.1	69.4	47.3
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	84.6	90.0	31.9	89.9	0.2	1061.3	33.0	20.9	68.1	69.4	47.3
LOS	F	F	C	F	A	F	C	C	E	E	D
Approach Delay		88.4		81.9			631.8			53.9	
Approach LOS		F		F			F			D	

























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.31  
 Intersection Signal Delay: 343.4  
 Intersection Capacity Utilization 128.4%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 										
Traffic Volume (veh/h)	265	411	120	38	472	23	1110	558	234	28	186	497
Future Volume (veh/h)	265	411	120	38	472	23	1110	558	234	28	186	497
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	312	484	141	45	555	27	1306	656	275	33	219	585
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	525	152	514	539	457	398	1228	548	50	281	536
Arrive On Green	0.19	0.19	0.19	0.29	0.29	0.29	0.22	0.35	0.35	0.03	0.15	0.15
Sat Flow, veh/h	1781	2789	807	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	312	324	301	45	555	27	1306	656	275	33	219	585
Grp Sat Flow(s),veh/h/ln	1781	1870	1725	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	20.7	20.4	20.6	2.2	34.6	1.5	26.8	17.8	16.5	2.2	13.5	18.0
Cycle Q Clear(g_c), s	20.7	20.4	20.6	2.2	34.6	1.5	26.8	17.8	16.5	2.2	13.5	18.0
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	352	325	514	539	457	398	1228	548	50	281	536
V/C Ratio(X)	0.93	0.92	0.93	0.09	1.03	0.06	3.28	0.53	0.50	0.67	0.78	1.09
Avail Cap(c_a), veh/h	335	352	325	514	539	457	398	1228	548	89	281	536
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(l)	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	47.9	47.8	47.9	31.2	42.7	30.9	46.6	31.5	31.1	57.8	49.1	32.2
Incr Delay (d2), s/veh	34.2	31.2	34.5	0.1	46.4	0.1	1033.8	1.7	3.3	14.3	19.1	65.9
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	12.3	12.5	11.9	1.0	22.9	0.6	125.9	7.8	6.7	1.2	7.7	26.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.1	79.0	82.4	31.2	89.1	31.0	1080.4	33.2	34.4	72.1	68.2	98.1
LnGrp LOS	F	E	F	C	F	C	F	C	C	E	E	F
Approach Vol, veh/h		937			627			2237				837
Approach Delay, s/veh		81.1			82.5			644.7				89.3
Approach LOS		F			F			F				F
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	31.3	22.5		39.1	7.8	46.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		22.6	26.8	18.0		34.6	6.0	38.8				
Max Q Clear Time (g_c+I1), s		22.7	28.8	20.0		36.6	4.2	19.8				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	5.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				354.6								
HCM 6th LOS				F								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

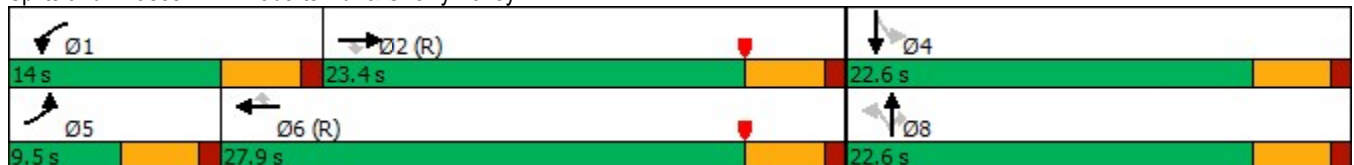
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	422	605	25	149	536	409	13	28	141	579	25
Future Volume (vph)	422	605	25	149	536	409	13	28	141	579	25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	23.4	23.4	14.0	27.9	27.9	22.6	22.6	22.6	22.6	22.6
Total Split (%)	15.8%	39.0%	39.0%	23.3%	46.5%	46.5%	37.7%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	21.8	21.8	8.9	23.4	23.4	18.1	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.08	0.36	0.36	0.15	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	3.16	0.52	0.04	0.63	0.43	0.51	0.04	0.06	0.26	0.26	2.23
Control Delay	1003.8	18.0	0.1	35.6	14.6	4.3	15.3	15.3	4.7	4.7	580.8
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	1003.8	18.0	0.1	35.6	14.6	4.3	15.3	15.3	4.7	4.7	580.8
LOS	F	B	A	D	B	A	B	B	A	A	F
Approach Delay		413.3			13.6			7.1			580.8
Approach LOS		F			B			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 3.16  
 Intersection Signal Delay: 303.6  
 Intersection LOS: F  
 Intersection Capacity Utilization 109.0%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	605	25	149	536	409	13	28	141	579	25	319
Future Volume (veh/h)	422	605	25	149	536	409	13	28	141	579	25	319
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	464	665	27	164	589	449	14	31	155	636	27	351
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1269	566	207	1386	618	476	564	478	338	10	133
Arrive On Green	0.08	0.36	0.36	0.12	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1005	1870	1585	797	34	440
Grp Volume(v), veh/h	464	665	27	164	589	449	14	31	155	1014	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1005	1870	1585	1271	0	0
Q Serve(g_s), s	5.0	8.9	0.7	5.4	7.3	14.5	0.0	0.7	4.5	17.4	0.0	0.0
Cycle Q Clear(g_c), s	5.0	8.9	0.7	5.4	7.3	14.5	0.5	0.7	4.5	18.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.63		0.35
Lane Grp Cap(c), veh/h	148	1269	566	207	1386	618	476	564	478	481	0	0
V/C Ratio(X)	3.13	0.52	0.05	0.79	0.42	0.73	0.03	0.05	0.32	2.11	0.00	0.00
Avail Cap(c_a), veh/h	148	1269	566	282	1386	618	476	564	478	481	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	15.3	12.6	25.8	13.4	15.6	14.8	14.9	16.2	23.1	0.0	0.0
Incr Delay (d2), s/veh	974.1	1.6	0.2	10.3	1.0	7.3	0.1	0.2	1.8	505.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.1	3.4	0.2	2.7	2.7	5.7	0.1	0.3	1.7	74.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1001.6	16.8	12.8	36.1	14.3	22.9	14.9	15.1	18.0	528.9	0.0	0.0
LnGrp LOS	F	B	B	D	B	C	B	B	B	F	A	A
Approach Vol, veh/h		1156			1202			200			1014	
Approach Delay, s/veh		412.0			20.5			17.3			528.9	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	25.9		22.6	9.5	27.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	18.9		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	7.4	10.9		20.1	7.0	16.5		6.5				
Green Ext Time (p_c), s	0.1	2.7		0.0	0.0	3.1		0.5				

Intersection Summary

HCM 6th Ctrl Delay	291.3
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.



**Intersection**

Intersection Delay, s/veh 689.1  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷						↷	
Traffic Vol, veh/h	0	1108	219	608	598	0	0	0	0	440	0	496
Future Vol, veh/h	0	1108	219	608	598	0	0	0	0	440	0	496
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1191	235	654	643	0	0	0	0	473	0	533
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	819.6	741	437.2
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	47%
Vol Thru, %	83%	50%	0%
Vol Right, %	17%	0%	53%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1327	1206	936
LT Vol	0	608	440
Through Vol	1108	598	0
RT Vol	219	0	496
Lane Flow Rate	1427	1297	1006
Geometry Grp	1	1	1
Degree of Util (X)	2.748	2.569	1.903
Departure Headway (Hd)	11.809	12.321	9.252
Convergence, Y/N	Yes	Yes	Yes
Cap	328	311	403
Service Time	9.809	10.321	7.252
HCM Lane V/C Ratio	4.351	4.17	2.496
HCM Control Delay	819.6	741	437.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	71	61.9	49.5

<b>Intersection</b>												
Intersection Delay, s/veh	924.3											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	778	770	0	0	1001	652	204	12	623	0	0	0
Future Vol, veh/h	778	770	0	0	1001	652	204	12	623	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	837	828	0	0	1076	701	219	13	670	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	1067.2	1091.7	330.8
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	24%	50%	0%
Vol Thru, %	1%	50%	61%
Vol Right, %	74%	0%	39%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	839	1548	1653
LT Vol	204	778	0
Through Vol	12	770	1001
RT Vol	623	0	652
Lane Flow Rate	902	1665	1777
Geometry Grp	1	1	1
Degree of Util (X)	1.662	3.298	3.355
Departure Headway (Hd)	8.928	12.499	12.043
Convergence, Y/N	Yes	Yes	Yes
Cap	415	316	320
Service Time	6.928	10.499	10.043
HCM Lane V/C Ratio	2.173	5.269	5.553
HCM Control Delay	330.8	1067.2	1091.7
HCM Lane LOS	F	F	F
HCM 95th-tile Q	39.7	86.8	92.1

Intersection						
Int Delay, s/veh	367.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	565	829	1099	196	119	554
Future Vol, veh/h	565	829	1099	196	119	554
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	657	964	1278	228	138	644

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1506	0	-	0	3670 1392
Stage 1	-	-	-	-	1392 -
Stage 2	-	-	-	-	2278 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	~ 444	-	-	-	~ 5 ~ 174
Stage 1	-	-	-	-	230 -
Stage 2	-	-	-	-	~ 83 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	~ 444	-	-	-	0 ~ 174
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	~ 83 -

Approach	EB	WB	SB
HCM Control Delay, s	102	0	\$ 1625.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 444	-	-	-	174
HCM Lane V/C Ratio	1.48	-	-	-	4.497
HCM Control Delay (s)	251.6	0	-	-	\$ 1625.7
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	33.9	-	-	-	79.8

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	632.5
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	585	3	0	1494	291	0
Future Vol, veh/h	585	3	0	1494	291	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	650	3	0	1660	323	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	155.7	937.5	29.8
HCM LOS	F	F	D

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1494	588	291
LT Vol	0	585	0
Through Vol	1494	0	291
RT Vol	0	3	0
Lane Flow Rate	1660	653	323
Geometry Grp	1	1	1
Degree of Util (X)	3.037	1.231	0.631
Departure Headway (Hd)	7.22	9.997	10.489
Convergence, Y/N	Yes	Yes	Yes
Cap	531	372	349
Service Time	5.22	7.997	8.489
HCM Lane V/C Ratio	3.126	1.755	0.926
HCM Control Delay	937.5	155.7	29.8
HCM Lane LOS	F	F	D
HCM 95th-tile Q	131.3	19.1	4.1

Intersection						
Int Delay, s/veh	556					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	311	232	252	571	531	245
Future Vol, veh/h	311	232	252	571	531	245
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	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	622	464	504	1142	1062	490

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	3689	1075	0	0	1646
Stage 1	1075	-	-	-	-
Stage 2	2614	-	-	-	-
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	~ 5	~ 267	-	-	~ 393
Stage 1	~ 328	-	-	-	-
Stage 2	~ 55	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	0	~ 267	-	-	~ 393
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	~ 328	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, \$	1416.5	0	\$ 543.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	267	~ 393
HCM Lane V/C Ratio	-	-	4.067	2.702
HCM Control Delay (s)	-	\$ 1416.5	\$ 794.5	0
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	106.2	88.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	26	50	969	26	50	437
Future Vol, veh/h	26	50	969	26	50	437
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	-	-	-	150	-
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	28	54	1053	28	54	475

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1650	541	0	0	1081
Stage 1	1067	-	-	-	-
Stage 2	583	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	99	486	-	-	643
Stage 1	293	-	-	-	-
Stage 2	557	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	91	486	-	-	643
Mov Cap-2 Maneuver	207	-	-	-	-
Stage 1	293	-	-	-	-
Stage 2	510	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.3	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	333	643
HCM Lane V/C Ratio	-	-	0.248	0.085
HCM Control Delay (s)	-	-	19.3	11.1
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	1	0.3

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	26	125	869	26	125	337
Future Vol, veh/h	26	125	869	26	125	337
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	-	-	-	150	-
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	28	136	945	28	136	366

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1597	487	0	0	973
Stage 1	959	-	-	-	-
Stage 2	638	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	107	527	-	-	706
Stage 1	334	-	-	-	-
Stage 2	525	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	86	527	-	-	706
Mov Cap-2 Maneuver	209	-	-	-	-
Stage 1	334	-	-	-	-
Stage 2	424	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	3.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	418	706
HCM Lane V/C Ratio	-	-	0.393	0.192
HCM Control Delay (s)	-	-	19.1	11.3
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	1.8	0.7

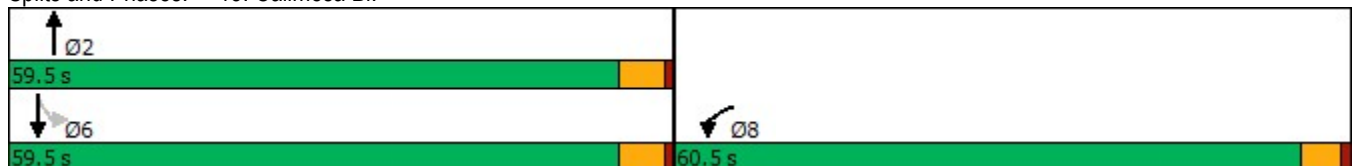
Timings  
15: Calimesa Bl.

	↙	↑	↘	↓
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations	↙	↑	↘	↑
Traffic Volume (vph)	72	742	123	241
Future Volume (vph)	72	742	123	241
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.6	23.1	23.1	23.1
Total Split (s)	60.5	59.5	59.5	59.5
Total Split (%)	50.4%	49.6%	49.6%	49.6%
Yellow Time (s)	3.6	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	5.1
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min
Act Effct Green (s)	10.3	23.8	23.8	23.8
Actuated g/C Ratio	0.23	0.54	0.54	0.54
v/c Ratio	0.53	0.46	0.45	0.26
Control Delay	14.3	7.5	12.7	6.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.3	7.5	12.7	6.8
LOS	B	A	B	A
Approach Delay	14.3	7.5		8.8
Approach LOS	B	A		A

Intersection Summary












Cycle Length: 120  
 Actuated Cycle Length: 44.4  
 Natural Cycle: 55  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.53  
 Intersection Signal Delay: 8.9  
 Intersection LOS: A  
 Intersection Capacity Utilization 54.9%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 15: Calimesa Bl.





HCM 6th Signalized Intersection Summary  
15: Calimesa Bl.

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	72	153	742	59	123	241
Future Volume (veh/h)	72	153	742	59	123	241
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	78	166	807	64	134	262
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	101	214	1662	132	445	932
Arrive On Green	0.19	0.19	0.50	0.50	0.50	0.50
Sat Flow, veh/h	523	1114	3429	264	636	1870
Grp Volume(v), veh/h	245	0	430	441	134	262
Grp Sat Flow(s),veh/h/ln	1644	0	1777	1823	636	1870
Q Serve(g_s), s	4.4	0.0	5.0	5.0	5.5	2.6
Cycle Q Clear(g_c), s	4.4	0.0	5.0	5.0	10.6	2.6
Prop In Lane	0.32	0.68		0.15	1.00	
Lane Grp Cap(c), veh/h	316	0	885	908	445	932
V/C Ratio(X)	0.77	0.00	0.49	0.49	0.30	0.28
Avail Cap(c_a), veh/h	2930	0	3082	3162	1231	3245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	5.2	5.2	8.7	4.6
Incr Delay (d2), s/veh	1.5	0.0	0.4	0.4	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.8	0.8	0.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.6	0.0	5.6	5.6	9.1	4.8
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	245		871			396
Approach Delay, s/veh	13.6		5.6			6.2
Approach LOS	B		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.7			20.7	10.6
Change Period (Y+Rc), s		5.1			5.1	4.6
Max Green Setting (Gmax), s		54.4			54.4	55.9
Max Q Clear Time (g_c+I1), s		7.0			12.6	6.4
Green Ext Time (p_c), s		6.4			3.1	0.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			7.1			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	96	705	55	83	231
Future Vol, veh/h	64	96	705	55	83	231
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	-	-	-	150	-
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	70	104	766	60	90	251

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1227	413	0	0	826
Stage 1	796	-	-	-	-
Stage 2	431	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	183	589	-	-	803
Stage 1	406	-	-	-	-
Stage 2	654	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	163	589	-	-	803
Mov Cap-2 Maneuver	289	-	-	-	-
Stage 1	406	-	-	-	-
Stage 2	581	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.7	0	2.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	416	803
HCM Lane V/C Ratio	-	-	0.418	0.112
HCM Control Delay (s)	-	-	19.7	10.1
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	2	0.4

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	22	738	4	8	287
Future Vol, veh/h	13	22	738	4	8	287
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	-	-	-	150	-
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	14	24	802	4	9	312

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1134	403	0	0	806
Stage 1	804	-	-	-	-
Stage 2	330	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	210	598	-	-	817
Stage 1	402	-	-	-	-
Stage 2	728	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	208	598	-	-	817
Mov Cap-2 Maneuver	208	-	-	-	-
Stage 1	402	-	-	-	-
Stage 2	720	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.4	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	353	817
HCM Lane V/C Ratio	-	-	0.108	0.011
HCM Control Delay (s)	-	-	16.4	9.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.4	0

Intersection												
Int Delay, s/veh	1028.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	1134	652	495	1148	0	0	0	0	890	0	644
Future Vol, veh/h	0	1134	652	495	1148	0	0	0	0	890	0	644
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1246	716	544	1262	0	0	0	0	967	0	700

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1962	0	0		3954	4312	1262
Stage 1	-	-	-	-	-	-		2350	2350	-
Stage 2	-	-	-	-	-	-		1604	1962	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	~ 296	-	0		~ 3	2	~ 207
Stage 1	0	-	-	-	-	0		~ 76	69	-
Stage 2	0	-	-	-	-	0		~ 181	109	-
Platoon blocked, %	-	-	-	-	-	-		-	-	-
Mov Cap-1 Maneuver	-	-	-	~ 296	-	-		0	0	~ 207
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 76	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	126.3	\$ 3216.9
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	~ 296	-	207
HCM Lane V/C Ratio	-	-	1.838	-	8.055
HCM Control Delay (s)	-	-	\$ 419.1	\$ 3216.9	
HCM Lane LOS	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	36.6	-	185.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	4826.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	1345	0	0	926	717	719
Future Vol, veh/h	1345	0	0	926	717	719
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	1462	0	0	1007	779	782

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	2469 1462
Stage 1	-	-	-	-	1462 -
Stage 2	-	-	-	-	1007 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 33 ~ 158
Stage 1	-	0	0	-	~ 213 -
Stage 2	-	0	0	-	~ 353 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 33 ~ 158
Mov Cap-2 Maneuver	-	-	-	-	~ 33 -
Stage 1	-	-	-	-	~ 213 -
Stage 2	-	-	-	-	~ 353 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 12458.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	55	-	-
HCM Lane V/C Ratio	28.379	-	-
HCM Control Delay (s)	\$ 12458.7	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	191.3	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	1496.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	174	1301	659	108	1121	112	371	78	56	225	161	268
Future Vol, veh/h	174	1301	659	108	1121	112	371	78	56	225	161	268
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	179	1341	679	111	1156	115	382	80	58	232	166	276
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	2210.1	1292.5	350.7	473.5
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	8%	8%	34%
Vol Thru, %	15%	61%	84%	25%
Vol Right, %	11%	31%	8%	41%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	2134	1341	654
LT Vol	371	174	108	225
Through Vol	78	1301	1121	161
RT Vol	56	659	112	268
Lane Flow Rate	521	2200	1382	674
Geometry Grp	1	1	1	1
Degree of Util (X)	1.405	5.782	3.685	1.771
Departure Headway (Hd)	52.642	25.193	34.974	43.145
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	78	176	124	94
Service Time	50.642	23.193	32.974	41.145
HCM Lane V/C Ratio	6.679	12.5	11.145	7.17
HCM Control Delay	350.7	2210.1	1292.5	473.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	8	88.9	38.3	12.5

Intersection							
Int Delay, s/veh	1094						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	173	971	486	166	910	290	130
Future Vol, veh/h	173	971	486	166	910	290	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	188	1022	512	175	958	305	137

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	1534	0	2586	1278
Stage 1	-	-	-	-	-	1278	-
Stage 2	-	-	-	-	-	1308	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	434	-	~ 28	203
Stage 1	-	-	-	-	-	~ 262	-
Stage 2	-	-	-	-	-	~ 253	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	434	-	~ 17	203
Mov Cap-2 Maneuver	-	-	-	-	-	~ 17	-
Stage 1	-	-	-	-	-	~ 262	-
Stage 2	-	-	-	-	-	~ 151	-

Approach	EB	WB	NB
HCM Control Delay, s		2.9	\$ 8150
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	24	-	-	434	-
HCM Lane V/C Ratio	18.421	-	-	0.403	-
HCM Control Delay (s)	\$ 8150	-	-	18.8	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	55.3	-	-	1.9	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	88.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	110	935	56	34	989	17	28	5	30	20	15	59
Future Vol, veh/h	110	935	56	34	989	17	28	5	30	20	15	59
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	115	974	58	35	1030	18	29	5	31	21	16	61
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	80.1	108.6	13.6	14.1
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	44%	100%	0%	0%	100%	0%	0%	21%
Vol Thru, %	8%	0%	100%	85%	0%	100%	95%	16%
Vol Right, %	48%	0%	0%	15%	0%	0%	5%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	63	110	623	368	34	659	347	94
LT Vol	28	110	0	0	34	0	0	20
Through Vol	5	0	623	312	0	659	330	15
RT Vol	30	0	0	56	0	0	17	59
Lane Flow Rate	66	115	649	383	35	687	361	98
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.158	0.225	1.187	0.689	0.071	1.273	0.666	0.227
Departure Headway (Hd)	9.213	7.418	6.91	6.801	7.44	6.931	6.896	8.857
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	392	487	532	536	485	529	527	408
Service Time	6.913	5.118	4.61	4.501	5.14	4.631	4.596	6.557
HCM Lane V/C Ratio	0.168	0.236	1.22	0.715	0.072	1.299	0.685	0.24
HCM Control Delay	13.6	12.3	125.6	23.2	10.7	159.1	22.3	14.1
HCM Lane LOS	B	B	F	C	B	F	C	B
HCM 95th-tile Q	0.6	0.9	22.5	5.3	0.2	26.9	4.9	0.9



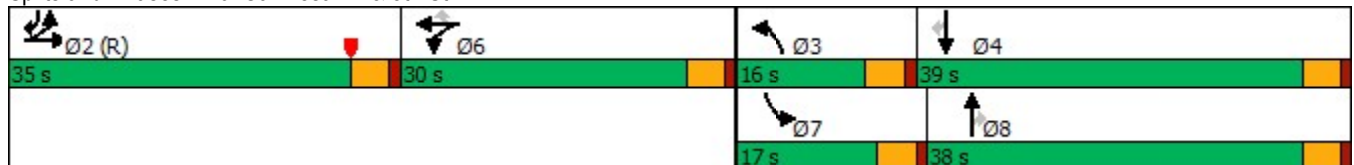
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	271	104	456	32	1140	427	239	37	420	538
Future Volume (vph)	214	271	104	456	32	1140	427	239	37	420	538
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (s)	35.0	35.0	30.0	30.0	30.0	16.0	38.0	38.0	17.0	39.0	35.0
Total Split (%)	29.2%	29.2%	25.0%	25.0%	25.0%	13.3%	31.7%	31.7%	14.2%	32.5%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	30.5	30.5	25.5	25.5	25.5	11.5	42.2	42.2	8.1	34.5	69.5
Actuated g/C Ratio	0.25	0.25	0.21	0.21	0.21	0.10	0.35	0.35	0.07	0.29	0.58
v/c Ratio	0.50	0.54	0.30	1.23	0.08	7.18	0.36	0.40	0.33	0.84	0.61
Control Delay	43.3	36.0	42.3	163.4	0.4	2800.4	31.4	17.0	59.9	55.2	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.3	36.0	42.3	163.4	0.4	2800.4	31.4	17.0	59.9	55.2	18.0
LOS	D	D	D	F	A	F	C	B	E	E	B
Approach Delay		38.3		133.3			1778.0			35.3	
Approach LOS		D		F			F			D	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 7.18  
 Intersection Signal Delay: 832.5  
 Intersection Capacity Utilization 136.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	271	145	104	456	32	1140	427	239	37	420	538
Future Volume (veh/h)	214	271	145	104	456	32	1140	427	239	37	420	538
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	223	295	154	111	485	34	1213	454	254	39	447	572
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	453	594	302	379	397	337	171	1255	560	54	538	859
Arrive On Green	0.25	0.25	0.25	0.21	0.21	0.21	0.10	0.35	0.35	0.03	0.29	0.29
Sat Flow, veh/h	1781	2338	1188	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	223	234	215	111	485	34	1213	454	254	39	447	572
Grp Sat Flow(s),veh/h/ln	1781	1870	1656	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	12.8	12.8	13.3	6.3	25.5	2.1	11.5	11.4	14.8	2.6	26.9	31.1
Cycle Q Clear(g_c), s	12.8	12.8	13.3	6.3	25.5	2.1	11.5	11.4	14.8	2.6	26.9	31.1
Prop In Lane	1.00		0.72	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	475	421	379	397	337	171	1255	560	54	538	859
V/C Ratio(X)	0.49	0.49	0.51	0.29	1.22	0.10	7.11	0.36	0.45	0.72	0.83	0.67
Avail Cap(c_a), veh/h	453	475	421	379	397	337	171	1255	560	186	538	859
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(l)	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	38.2	38.2	38.3	39.7	47.2	38.0	54.3	28.8	29.9	57.7	40.0	19.7
Incr Delay (d2), s/veh	3.8	3.6	4.4	0.4	119.9	0.1	2759.8	0.8	2.6	16.5	13.9	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	6.1	6.4	5.9	2.8	25.1	0.8	136.0	4.9	6.0	1.4	14.2	18.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	41.8	42.7	40.1	167.1	38.2	2814.0	29.6	32.6	74.2	54.0	23.8
LnGrp LOS	D	D	D	D	F	D	F	C	C	E	D	C
Approach Vol, veh/h		672			630			1921			1058	
Approach Delay, s/veh		42.1			137.8			1788.2			38.4	
Approach LOS		D			F			F			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	16.0	39.0		30.0	8.1	46.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	11.5	34.5		25.5	12.5	33.5				
Max Q Clear Time (g_c+I1), s		15.3	13.5	33.1		27.5	4.6	16.8				
Green Ext Time (p_c), s		3.1	0.0	0.8		0.0	0.0	3.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				838.8								
HCM 6th LOS				F								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

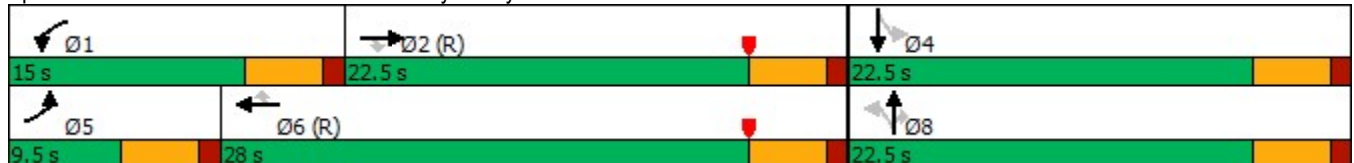
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	343	725	29	301	801	500	29	10	163	386	13
Future Volume (vph)	343	725	29	301	801	500	29	10	163	386	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0		18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30		0.30
v/c Ratio	2.46	0.72	0.05	1.03	0.61	0.63	0.11	0.02	0.28		1.68
Control Delay	694.2	23.3	0.2	87.6	16.9	8.8	16.7	15.0	3.8		337.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	694.2	23.3	0.2	87.6	16.9	8.8	16.7	15.0	3.8		337.1
LOS	F	C	A	F	B	A	B	B	A		F
Approach Delay		232.4			27.7			6.3			337.1
Approach LOS		F			C			A			F

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.46  
 Intersection Signal Delay: 153.8  
 Intersection Capacity Utilization 105.4%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service G

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	725	29	301	801	500	29	10	163	386	13	396
Future Volume (veh/h)	343	725	29	301	801	500	29	10	163	386	13	396
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	361	763	31	317	843	526	31	11	172	406	14	417
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	1066	476	312	1392	621	402	561	476	286	7	203
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	957	1870	1585	658	23	676
Grp Volume(v), veh/h	361	763	31	317	843	526	31	11	172	837	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	957	1870	1585	1356	0	0
Q Serve(g_s), s	5.0	11.5	0.8	10.5	11.4	18.1	0.0	0.2	5.1	17.8	0.0	0.0
Cycle Q Clear(g_c), s	5.0	11.5	0.8	10.5	11.4	18.1	1.4	0.2	5.1	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.49		0.50
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	402	561	476	496	0	0
V/C Ratio(X)	2.43	0.72	0.07	1.02	0.61	0.85	0.08	0.02	0.36	1.69	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	402	561	476	496	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	18.7	15.0	24.8	14.6	16.6	15.2	14.8	16.5	22.7	0.0	0.0
Incr Delay (d2), s/veh	664.3	4.1	0.3	55.4	2.0	13.5	0.4	0.1	2.1	318.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.4	4.8	0.3	8.8	4.3	7.8	0.3	0.1	2.0	50.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	691.8	22.8	15.3	80.1	16.5	30.1	15.6	14.9	18.6	340.8	0.0	0.0
LnGrp LOS	F	C	B	F	B	C	B	B	B	F	A	A
Approach Vol, veh/h		1155			1686			214				837
Approach Delay, s/veh		231.7			32.7			18.0				340.8
Approach LOS		F			C			B				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	12.5	13.5		20.0	7.0	20.1		7.1				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	2.2		0.5				

Intersection Summary

HCM 6th Ctrl Delay	157.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

**Intersection**

Intersection Delay, s/veh 769.5  
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	1040	236	584	699	0	0	0	0	587	0	903
Future Vol, veh/h	0	1040	236	584	699	0	0	0	0	587	0	903
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1051	238	590	706	0	0	0	0	593	0	912
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	706.3	744.7	845
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	46%	39%
Vol Thru, %	82%	54%	0%
Vol Right, %	18%	0%	61%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1276	1283	1490
LT Vol	0	584	587
Through Vol	1040	699	0
RT Vol	236	0	903
Lane Flow Rate	1289	1296	1505
Geometry Grp	1	1	1
Degree of Util (X)	2.478	2.564	2.82
Departure Headway (Hd)	14.598	14.648	9.133
Convergence, Y/N	Yes	Yes	Yes
Cap	271	259	421
Service Time	12.598	12.648	7.133
HCM Lane V/C Ratio	4.756	5.004	3.575
HCM Control Delay	706.3	744.7	845
HCM Lane LOS	F	F	F
HCM 95th-tile Q	50.1	52.5	94.1

<b>Intersection</b>												
Intersection Delay, s/veh	20.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	559	1068	0	0	1024	610	259	10	758	0	0	0
Future Vol, veh/h	559	1068	0	0	1024	610	259	10	758	0	0	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	588	1124	0	0	1078	642	273	11	798	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	1088.5	1031.9	476.6
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	25%	34%	0%
Vol Thru, %	1%	66%	63%
Vol Right, %	74%	0%	37%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1027	1627	1634
LT Vol	259	559	0
Through Vol	10	1068	1024
RT Vol	758	0	610
Lane Flow Rate	1081	1713	1720
Geometry Grp	1	1	1
Degree of Util (X)	1.994	3.341	3.215
Departure Headway (Hd)	8.966	13.36	13.25
Convergence, Y/N	Yes	Yes	Yes
Cap	422	291	292
Service Time	6.966	11.36	11.25
HCM Lane V/C Ratio	2.562	5.887	5.89
HCM Control Delay	476.6	1088.5	1031.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	55.3	82.9	79.4

Intersection						
Int Delay, s/veh	248.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	666	1160	1183	135	158	451
Future Vol, veh/h	666	1160	1183	135	158	451
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	724	1261	1286	147	172	490

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1433	0	-	0	4069 1360
Stage 1	-	-	-	-	1360 -
Stage 2	-	-	-	-	2709 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	~ 474	-	-	-	~ 3 ~ 182
Stage 1	-	-	-	-	239 -
Stage 2	-	-	-	-	~ 49 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	~ 474	-	-	-	0 ~ 182
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	~ 49 -

Approach	EB	WB	SB
HCM Control Delay, s	98.5	0	\$ 1238.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 474	-	-	-	182
HCM Lane V/C Ratio	1.527	-	-	-	3.637
HCM Control Delay (s)	270.1	0	-	-	\$ 1238.2
HCM Lane LOS	F	A	-	-	F
HCM 95th %tile Q(veh)	38.3	-	-	-	63.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	599.1
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	1019	2	0	1305	624	0
Future Vol, veh/h	1019	2	0	1305	624	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1096	2	0	1403	671	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	571.9	813.4	195.5
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1305	1021	624
LT Vol	0	1019	0
Through Vol	1305	0	624
RT Vol	0	2	0
Lane Flow Rate	1403	1098	671
Geometry Grp	1	1	1
Degree of Util (X)	2.741	2.205	1.303
Departure Headway (Hd)	10.597	9.603	13.149
Convergence, Y/N	Yes	Yes	Yes
Cap	365	395	282
Service Time	8.597	7.603	11.149
HCM Lane V/C Ratio	3.844	2.78	2.379
HCM Control Delay	813.4	571.9	195.5
HCM Lane LOS	F	F	F
HCM 95th-tile Q	78.4	61.5	17.9



Intersection						
Int Delay, s/veh	1331.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	599	583	299	722	480	195
Future Vol, veh/h	599	583	299	722	480	195
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	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	998	972	498	1203	800	325

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	3025	1100	0	0	1701
Stage 1	1100	-	-	-	-
Stage 2	1925	-	-	-	-
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	~ 14	~ 258	-	-	~ 374
Stage 1	~ 319	-	-	-	-
Stage 2	~ 125	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	0	~ 258	-	-	~ 374
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	~ 319	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 3021	0	\$ 387.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	258	~ 374
HCM Lane V/C Ratio	-	-	7.636	2.139
HCM Control Delay (s)	-	-	\$ 3021	\$ 544.7
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	217.4	58.4

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	14	27	423	29	57	826
Future Vol, veh/h	14	27	423	29	57	826
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	-	-	-	150	-
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	15	29	460	32	62	898

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1498	246	0	0	492
Stage 1	476	-	-	-	-
Stage 2	1022	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	123	755	-	-	1070
Stage 1	592	-	-	-	-
Stage 2	346	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	116	755	-	-	1070
Mov Cap-2 Maneuver	239	-	-	-	-
Stage 1	592	-	-	-	-
Stage 2	326	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	435	1070
HCM Lane V/C Ratio	-	-	0.102	0.058
HCM Control Delay (s)	-	-	14.2	8.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	14	67	385	29	141	699
Future Vol, veh/h	14	67	385	29	141	699
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	-	-	-	150	-
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	15	73	418	32	153	760

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1500	225	0	0	450
Stage 1	434	-	-	-	-
Stage 2	1066	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	123	779	-	-	1109
Stage 1	622	-	-	-	-
Stage 2	330	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	106	779	-	-	1109
Mov Cap-2 Maneuver	218	-	-	-	-
Stage 1	622	-	-	-	-
Stage 2	284	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	539	1109
HCM Lane V/C Ratio	-	-	0.163	0.138
HCM Control Delay (s)	-	-	13	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.5

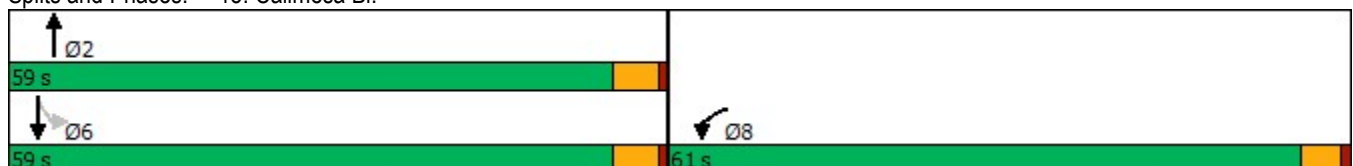
Timings  
15: Calimesa Bl.

	↙	↑	↘	↓
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations	↙	↑↔	↘	↑
Traffic Volume (vph)	44	319	198	516
Future Volume (vph)	44	319	198	516
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	23.1
Total Split (s)	61.0	59.0	59.0	59.0
Total Split (%)	50.8%	49.2%	49.2%	49.2%
Yellow Time (s)	3.6	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	5.1
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	7.0	18.7	18.7	18.7
Actuated g/C Ratio	0.23	0.60	0.60	0.60
v/c Ratio	0.33	0.21	0.39	0.50
Control Delay	8.1	4.4	8.2	7.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.1	4.4	8.2	7.6
LOS	A	A	A	A
Approach Delay	8.1	4.4		7.8
Approach LOS	A	A		A












Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 31  
 Natural Cycle: 50  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 6.7  
 Intersection LOS: A  
 Intersection Capacity Utilization 43.5%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 15: Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 15: Calimesa Bl.

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	44	94	319	92	198	516
Future Volume (veh/h)	44	94	319	92	198	516
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	48	102	347	100	215	561
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	66	139	1406	400	685	963
Arrive On Green	0.13	0.13	0.51	0.51	0.51	0.51
Sat Flow, veh/h	523	1111	2825	776	943	1870
Grp Volume(v), veh/h	151	0	224	223	215	561
Grp Sat Flow(s),veh/h/ln	1644	0	1777	1731	943	1870
Q Serve(g_s), s	2.4	0.0	1.9	1.9	4.4	5.6
Cycle Q Clear(g_c), s	2.4	0.0	1.9	1.9	6.4	5.6
Prop In Lane	0.32	0.68		0.45	1.00	
Lane Grp Cap(c), veh/h	206	0	915	891	685	963
V/C Ratio(X)	0.73	0.00	0.24	0.25	0.31	0.58
Avail Cap(c_a), veh/h	3437	0	3550	3458	2083	3737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	3.6	3.6	5.4	4.5
Incr Delay (d2), s/veh	1.9	0.0	0.1	0.1	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.2	0.2	0.3	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.2	0.0	3.8	3.8	5.7	5.1
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	151		447			776
Approach Delay, s/veh	13.2		3.8			5.3
Approach LOS	B		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		19.0			19.0	8.0
Change Period (Y+Rc), s		5.1			5.1	4.6
Max Green Setting (Gmax), s		53.9			53.9	56.4
Max Q Clear Time (g_c+I1), s		3.9			8.4	4.4
Green Ext Time (p_c), s		2.9			5.5	0.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			5.7			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	35	53	358	71	107	452
Future Vol, veh/h	35	53	358	71	107	452
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	-	-	-	150	-
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	38	58	389	77	116	491

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1151	233	0	0	466
Stage 1	428	-	-	-	-
Stage 2	723	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	205	770	-	-	1094
Stage 1	626	-	-	-	-
Stage 2	479	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	183	770	-	-	1094
Mov Cap-2 Maneuver	311	-	-	-	-
Stage 1	626	-	-	-	-
Stage 2	428	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	485	1094
HCM Lane V/C Ratio	-	-	0.197	0.106
HCM Control Delay (s)	-	-	14.2	8.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.4

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	8	20	410	14	29	459
Future Vol, veh/h	8	20	410	14	29	459
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	-	-	-	150	-
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	9	22	446	15	32	499

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1017	231	0	0	461
Stage 1	454	-	-	-	-
Stage 2	563	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	248	772	-	-	1098
Stage 1	607	-	-	-	-
Stage 2	569	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	241	772	-	-	1098
Mov Cap-2 Maneuver	241	-	-	-	-
Stage 1	607	-	-	-	-
Stage 2	552	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	474	1098
HCM Lane V/C Ratio	-	-	0.064	0.029
HCM Control Delay (s)	-	-	13.1	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

**APPENDIX 7.4: SUNDAY HORIZON YEAR (2045) WITH PROJECT  
SCENARIO 3 (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT  
AND PA2 CHURCH) CONDITIONS INTERSECTION OPERATIONS  
ANALYSIS WORKSHEETS**



This Page Intentionally Left Blank

Intersection												
Int Delay, s/veh	140.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔	
Traffic Vol, veh/h	0	613	311	390	720	0	0	0	0	388	1	345
Future Vol, veh/h	0	613	311	390	720	0	0	0	0	388	1	345
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	697	353	443	818	0	0	0	0	422	1	375

Major/Minor	Major1			Major2			Minor2			
Conflicting Flow All	-	0	0	1050	0	0		2578	2754	818
Stage 1	-	-	-	-	-	-		1704	1704	-
Stage 2	-	-	-	-	-	-		874	1050	-
Critical Hdwy	-	-	-	4.12	-	-		6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-		5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-		5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-		3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	663	-	0		~ 28	20	376
Stage 1	0	-	-	-	-	0		~ 162	147	-
Stage 2	0	-	-	-	-	0		~ 408	304	-
Platoon blocked, %		-	-	-						
Mov Cap-1 Maneuver	-	-	-	663	-	-		0	0	376
Mov Cap-2 Maneuver	-	-	-	-	-	-		0	0	-
Stage 1	-	-	-	-	-	-		~ 162	0	-
Stage 2	-	-	-	-	-	-		0	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	7.3	\$ 536.9
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	663	-	376
HCM Lane V/C Ratio	-	-	0.668	-	2.122
HCM Control Delay (s)	-	-	20.7	0	\$ 536.9
HCM Lane LOS	-	-	C	A	F
HCM 95th %tile Q(veh)	-	-	5.1	-	57.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	538.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	722	0	0	725	384	354
Future Vol, veh/h	722	0	0	725	384	354
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	785	0	0	788	417	385

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	1573 785
Stage 1	-	-	-	-	785 -
Stage 2	-	-	-	-	788 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	~ 121 393
Stage 1	-	0	0	-	449 -
Stage 2	-	0	0	-	448 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	~ 121 393
Mov Cap-2 Maneuver	-	-	-	-	~ 121 -
Stage 1	-	-	-	-	449 -
Stage 2	-	-	-	-	448 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 1594.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	181	-	-
HCM Lane V/C Ratio	4.432	-	-
HCM Control Delay (s)	\$ 1594.5	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	81.3	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	769.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	128	800	233	66	832	133	210	83	71	130	104	117
Future Vol, veh/h	128	800	233	66	832	133	210	83	71	130	104	117
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	136	851	248	70	885	141	223	88	76	138	111	124
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1053	897.2	129.3	119.8
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	11%	6%	37%
Vol Thru, %	23%	69%	81%	30%
Vol Right, %	20%	20%	13%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	1161	1031	351
LT Vol	210	128	66	130
Through Vol	83	800	832	104
RT Vol	71	233	133	117
Lane Flow Rate	387	1235	1097	373
Geometry Grp	1	1	1	1
Degree of Util (X)	1.02	3.254	2.9	0.981
Departure Headway (Hd)	21.77	14.783	15.762	22.127
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	170	259	241	168
Service Time	19.77	12.783	13.762	20.127
HCM Lane V/C Ratio	2.276	4.768	4.552	2.22
HCM Control Delay	129.3	1053	897.2	119.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	8.2	72.7	58.5	7.5

Intersection							
Int Delay, s/veh	304.1						
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖	↗	↖	
Traffic Vol, veh/h	34	612	358	87	685	330	80
Future Vol, veh/h	34	612	358	87	685	330	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	-	165	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	92	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	37	644	377	92	721	347	84

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	-	0	0	1021	0	1738	833
Stage 1	-	-	-	-	-	833	-
Stage 2	-	-	-	-	-	905	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	680	-	~ 96	369
Stage 1	-	-	-	-	-	427	-
Stage 2	-	-	-	-	-	395	-
Platoon blocked, %		-	-	-		-	
Mov Cap-1 Maneuver	-	-	-	680	-	~ 83	369
Mov Cap-2 Maneuver	-	-	-	-	-	~ 83	-
Stage 1	-	-	-	-	-	427	-
Stage 2	-	-	-	-	-	~ 342	-

Approach	EB	WB	NB
HCM Control Delay, s		1.3	\$ 1619.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	98	-	-	680	-
HCM Lane V/C Ratio	4.404	-	-	0.135	-
HCM Control Delay (s)	\$ 1619.6	-	-	11.1	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	45.3	-	-	0.5	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	20.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↔		↵	↕↔			↕↔			↕↔	
Traffic Vol, veh/h	48	607	2	2	719	7	3	2	2	9	2	61
Future Vol, veh/h	48	607	2	2	719	7	3	2	2	9	2	61
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	667	2	2	790	8	3	2	2	10	2	67
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	17.7	24.4	10.7	11.1
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	43%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	29%	0%	100%	99%	0%	100%	97%	3%
Vol Right, %	29%	0%	0%	1%	0%	0%	3%	85%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	48	405	204	2	479	247	72
LT Vol	3	48	0	0	2	0	0	9
Through Vol	2	0	405	202	0	479	240	2
RT Vol	2	0	0	2	0	0	7	61
Lane Flow Rate	8	53	445	225	2	527	271	79
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.017	0.092	0.714	0.36	0.004	0.833	0.427	0.155
Departure Headway (Hd)	7.841	6.282	5.779	5.772	6.194	5.69	5.67	7.046
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	571	627	622	578	637	634	509
Service Time	5.6	4.019	3.515	3.509	3.928	3.425	3.405	4.797
HCM Lane V/C Ratio	0.018	0.093	0.71	0.362	0.003	0.827	0.427	0.155
HCM Control Delay	10.7	9.7	21.7	11.7	9	30.5	12.6	11.1
HCM Lane LOS	B	A	C	B	A	D	B	B
HCM 95th-tile Q	0.1	0.3	5.9	1.6	0	8.9	2.1	0.5

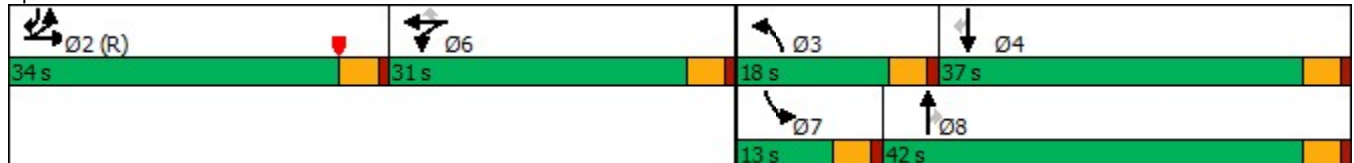
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	178	227	95	309	41	227	474	191	40	195	380
Future Volume (vph)	178	227	95	309	41	227	474	191	40	195	380
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6		3	8		7	4	2
Permitted Phases					6			8			4
Detector Phase	2	2	6	6	6	3	8	8	7	4	2
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	38.0	38.0	9.5	31.0	22.5
Total Split (s)	34.0	34.0	31.0	31.0	31.0	18.0	42.0	42.0	13.0	37.0	34.0
Total Split (%)	28.3%	28.3%	25.8%	25.8%	25.8%	15.0%	35.0%	35.0%	10.8%	30.8%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	29.5	29.5	24.7	24.7	24.7	15.3	42.2	42.2	7.6	32.5	66.5
Actuated g/C Ratio	0.25	0.25	0.21	0.21	0.21	0.13	0.35	0.35	0.06	0.27	0.55
v/c Ratio	0.40	0.40	0.29	0.89	0.10	1.11	0.42	0.34	0.39	0.42	0.45
Control Delay	41.6	38.2	41.8	71.0	0.5	140.3	32.3	17.8	64.1	39.2	12.6
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	41.6	38.2	41.8	71.0	0.5	140.3	32.3	17.8	64.1	39.2	12.6
LOS	D	D	D	E	A	F	C	B	E	D	B
Approach Delay		39.3		58.3			56.6			24.4	
Approach LOS		D		E			E			C	
























Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.11  
 Intersection Signal Delay: 45.5  
 Intersection Capacity Utilization 63.6%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service B

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	227	36	95	309	41	227	474	191	40	195	380
Future Volume (veh/h)	178	227	36	95	309	41	227	474	191	40	195	380
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	162	297	40	104	340	45	249	521	210	44	214	418
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	859	114	358	376	319	200	1248	557	57	507	850
Arrive On Green	0.27	0.27	0.27	0.20	0.20	0.20	0.11	0.35	0.35	0.03	0.27	0.27
Sat Flow, veh/h	1781	3232	431	1781	1870	1585	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	162	171	166	104	340	45	249	521	210	44	214	418
Grp Sat Flow(s),veh/h/ln	1781	1870	1793	1781	1870	1585	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	8.8	8.8	9.0	5.9	21.3	2.8	13.5	13.4	11.9	2.9	11.3	19.9
Cycle Q Clear(g_c), s	8.8	8.8	9.0	5.9	21.3	2.8	13.5	13.4	11.9	2.9	11.3	19.9
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	473	497	476	358	376	319	200	1248	557	57	507	850
V/C Ratio(X)	0.34	0.34	0.35	0.29	0.90	0.14	1.24	0.42	0.38	0.77	0.42	0.49
Avail Cap(c_a), veh/h	473	497	476	393	413	350	200	1248	557	126	507	850
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(l)	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	35.6	35.6	35.7	40.7	46.8	39.4	53.3	29.6	29.1	57.6	36.0	17.5
Incr Delay (d2), s/veh	2.0	1.9	2.0	0.4	21.7	0.2	144.0	1.0	1.9	19.3	2.6	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	4.1	4.3	4.2	2.7	12.2	1.1	14.0	5.8	4.8	1.6	5.5	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	37.5	37.7	41.1	68.5	39.6	197.3	30.6	31.1	76.9	38.6	19.5
LnGrp LOS	D	D	D	D	E	D	F	C	C	E	D	B
Approach Vol, veh/h		499			489			980			676	
Approach Delay, s/veh		37.6			60.0			73.1			29.3	
Approach LOS		D			E			E			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.4	18.0	37.0		28.6	8.3	46.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	13.5	32.5		26.5	8.5	37.5				
Max Q Clear Time (g_c+I1), s		11.0	15.5	21.9		23.3	4.9	15.4				
Green Ext Time (p_c), s		2.3	0.0	2.1		0.8	0.0	4.1				

Intersection Summary												
HCM 6th Ctrl Delay				52.8								
HCM 6th LOS				D								

Notes

User approved volume balancing among the lanes for turning movement.

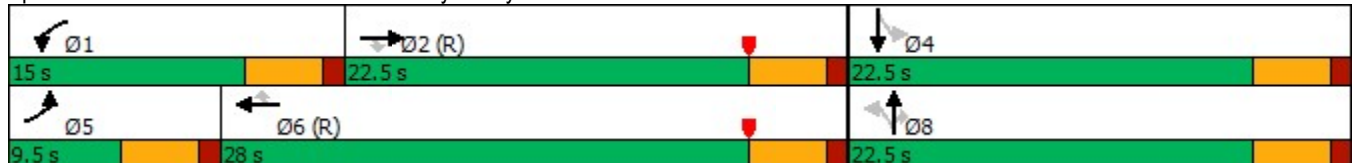


Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	316	549	50	300	550	374	28	4	174	423	13
Future Volume (vph)	316	549	50	300	550	374	28	4	174	423	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	15.0	28.0	28.0	22.5	22.5	22.5	22.5	22.5
Total Split (%)	15.8%	37.5%	37.5%	25.0%	46.7%	46.7%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	18.0	18.0	10.5	23.5	23.5	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.08	0.30	0.30	0.18	0.39	0.39	0.30	0.30	0.30	0.30	0.30
v/c Ratio	2.29	0.55	0.09	1.03	0.42	0.47	0.08	0.01	0.30	0.30	1.53
Control Delay	619.6	20.0	0.3	89.4	14.5	4.0	16.0	14.8	4.4	4.4	272.2
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	619.6	20.0	0.3	89.4	14.5	4.0	16.0	14.8	4.4	4.4	272.2
LOS	F	B	A	F	B	A	B	B	A	A	F
Approach Delay		226.0			29.6			6.1			272.2
Approach LOS		F			C			A			F

**Intersection Summary**  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.29  
 Intersection Signal Delay: 141.2  
 Intersection Capacity Utilization 88.6%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	549	50	300	550	374	28	4	174	423	13	227
Future Volume (veh/h)	316	549	50	300	550	374	28	4	174	423	13	227
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	336	584	53	319	585	398	30	4	185	450	14	241
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	148	1066	476	312	1392	621	480	561	476	349	8	134
Arrive On Green	0.08	0.30	0.30	0.17	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1125	1870	1585	835	26	447
Grp Volume(v), veh/h	336	584	53	319	585	398	30	4	185	705	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1125	1870	1585	1308	0	0
Q Serve(g_s), s	5.0	8.3	1.5	10.5	7.2	12.2	0.0	0.1	5.5	17.9	0.0	0.0
Cycle Q Clear(g_c), s	5.0	8.3	1.5	10.5	7.2	12.2	1.1	0.1	5.5	18.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.64		0.34
Lane Grp Cap(c), veh/h	148	1066	476	312	1392	621	480	561	476	491	0	0
V/C Ratio(X)	2.26	0.55	0.11	1.02	0.42	0.64	0.06	0.01	0.39	1.44	0.00	0.00
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	480	561	476	491	0	0
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	17.6	15.2	24.8	13.3	14.8	15.1	14.7	16.6	22.8	0.0	0.0
Incr Delay (d2), s/veh	589.5	2.0	0.5	57.1	0.9	5.0	0.2	0.0	2.4	208.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.3	3.3	0.5	9.0	2.6	4.6	0.3	0.0	2.2	35.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	617.0	19.6	15.7	81.8	14.2	19.8	15.3	14.8	19.0	230.8	0.0	0.0
LnGrp LOS	F	B	B	F	B	B	B	B	B	F	A	A
Approach Vol, veh/h		973			1302			219			705	
Approach Delay, s/veh		225.7			32.5			18.4			230.8	
Approach LOS		F			C			B			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	22.5		22.5	9.5	28.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	12.5	10.3		20.0	7.0	14.2		7.5				
Green Ext Time (p_c), s	0.0	2.4		0.0	0.0	3.6		0.5				

Intersection Summary

HCM 6th Ctrl Delay	134.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	543.6											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻	
Traffic Vol, veh/h	0	928	203	383	624	0	0	0	0	486	3	571
Future Vol, veh/h	0	928	203	383	624	0	0	0	0	486	3	571
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	967	211	399	650	0	0	0	0	506	3	595
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	603.9	515.1	506.2
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	38%	46%
Vol Thru, %	82%	62%	0%
Vol Right, %	18%	0%	54%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1131	1007	1060
LT Vol	0	383	486
Through Vol	928	624	3
RT Vol	203	0	571
Lane Flow Rate	1178	1049	1104
Geometry Grp	1	1	1
Degree of Util (X)	2.266	2.062	2.061
Departure Headway (Hd)	11.417	11.965	8.947
Convergence, Y/N	Yes	Yes	Yes
Cap	330	315	420
Service Time	9.417	9.965	6.947
HCM Lane V/C Ratio	3.57	3.33	2.629
HCM Control Delay	603.9	515.1	506.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	54.8	45.1	58.7

Intersection												
Intersection Delay, s/veh	600.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	643	706	0	0	816	402	191	6	480	0	0	0
Future Vol, veh/h	643	706	0	0	816	402	191	6	480	0	0	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	649	713	0	0	824	406	193	6	485	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	791.6	630.6	165
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	28%	48%	0%
Vol Thru, %	1%	52%	67%
Vol Right, %	71%	0%	33%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	677	1349	1218
LT Vol	191	643	0
Through Vol	6	706	816
RT Vol	480	0	402
Lane Flow Rate	684	1363	1230
Geometry Grp	1	1	1
Degree of Util (X)	1.265	2.697	2.335
Departure Headway (Hd)	9.061	9.737	9.922
Convergence, Y/N	Yes	Yes	Yes
Cap	410	395	381
Service Time	7.061	7.737	7.922
HCM Lane V/C Ratio	1.668	3.451	3.228
HCM Control Delay	165	791.6	630.6
HCM Lane LOS	F	F	F
HCM 95th-tile Q	21.8	82.9	65.4

Intersection						
Int Delay, s/veh	73.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	471	717	709	136	124	455
Future Vol, veh/h	471	717	709	136	124	455
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	496	755	746	143	131	479

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	889	0	-	0	2565 818
Stage 1	-	-	-	-	818 -
Stage 2	-	-	-	-	1747 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	762	-	-	-	~ 29 ~ 376
Stage 1	-	-	-	-	434 -
Stage 2	-	-	-	-	154 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	762	-	-	-	0 ~ 376
Mov Cap-2 Maneuver	-	-	-	-	0 -
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	154 -

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	\$ 317.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	762	-	-	-	376
HCM Lane V/C Ratio	0.651	-	-	-	1.621
HCM Control Delay (s)	18.1	0	-	-	\$ 317.1
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	4.9	-	-	-	35.6

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	49
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	538	6	0	321	328	0
Future Vol, veh/h	538	6	0	321	328	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	598	7	0	357	364	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	80.8	22	22.6
HCM LOS	F	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	99%	0%
Vol Thru, %	100%	0%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	321	544	328
LT Vol	0	538	0
Through Vol	321	0	328
RT Vol	0	6	0
Lane Flow Rate	357	604	364
Geometry Grp	1	1	1
Degree of Util (X)	0.654	1.063	0.667
Departure Headway (Hd)	6.89	6.334	6.873
Convergence, Y/N	Yes	Yes	Yes
Cap	528	568	528
Service Time	4.89	4.412	4.873
HCM Lane V/C Ratio	0.676	1.063	0.689
HCM Control Delay	22	80.8	22.6
HCM Lane LOS	C	F	C
HCM 95th-tile Q	4.7	17.3	4.9

Intersection						
Int Delay, s/veh	326.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	123	488	139	105	435	221
Future Vol, veh/h	123	488	139	105	435	221
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	40	40	40	40	40	40
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	308	1220	348	263	1088	553

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	3209	480	0	0	611	0
Stage 1	480	-	-	-	-	-
Stage 2	2729	-	-	-	-	-
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	~ 11	~ 586	-	-	~ 968	-
Stage 1	622	-	-	-	-	-
Stage 2	~ 48	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	0	~ 586	-	-	~ 968	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 744	0	58.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	586	~ 968
HCM Lane V/C Ratio	-	-	2.607	1.123
HCM Control Delay (s)	-	-	\$ 744	88
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	122.4	29

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↓		↑↓		↑↓	↑↓
Traffic Vol, veh/h	1	1	360	2	4	385
Future Vol, veh/h	1	1	360	2	4	385
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	-	-	-	150	-
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	1	1	391	2	4	418

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	818	197	0	0	393
Stage 1	392	-	-	-	-
Stage 2	426	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	329	812	-	-	1164
Stage 1	653	-	-	-	-
Stage 2	658	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	328	812	-	-	1164
Mov Cap-2 Maneuver	448	-	-	-	-
Stage 1	653	-	-	-	-
Stage 2	656	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	577	1164
HCM Lane V/C Ratio	-	-	0.004	0.004
HCM Control Delay (s)	-	-	11.3	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0



Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑
Traffic Vol, veh/h	1	3	358	2	11	374
Future Vol, veh/h	1	3	358	2	11	374
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	-	-	-	150	-
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	1	3	389	2	12	407

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	821	196	0	0	391
Stage 1	390	-	-	-	-
Stage 2	431	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	328	813	-	-	1166
Stage 1	654	-	-	-	-
Stage 2	654	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	325	813	-	-	1166
Mov Cap-2 Maneuver	445	-	-	-	-
Stage 1	654	-	-	-	-
Stage 2	647	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	674	1166
HCM Lane V/C Ratio	-	-	0.006	0.01
HCM Control Delay (s)	-	-	10.4	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↓		↑↓		↑↓	↑↓
Traffic Vol, veh/h	8	17	342	7	15	360
Future Vol, veh/h	8	17	342	7	15	360
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	-	-	-	150	-
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	9	18	372	8	16	391

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	799	190	0	0	380
Stage 1	376	-	-	-	-
Stage 2	423	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	338	820	-	-	1177
Stage 1	665	-	-	-	-
Stage 2	660	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	333	820	-	-	1177
Mov Cap-2 Maneuver	452	-	-	-	-
Stage 1	665	-	-	-	-
Stage 2	651	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	651	1177
HCM Lane V/C Ratio	-	-	0.042	0.014
HCM Control Delay (s)	-	-	10.8	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	95	64	285	94	67	301
Future Vol, veh/h	95	64	285	94	67	301
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	-	-	-	150	-
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	103	70	310	102	73	327

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	834	206	0	0	412
Stage 1	361	-	-	-	-
Stage 2	473	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13
Critical Hdwy Stg 1	5.83	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	322	801	-	-	1145
Stage 1	677	-	-	-	-
Stage 2	626	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	301	801	-	-	1145
Mov Cap-2 Maneuver	423	-	-	-	-
Stage 1	677	-	-	-	-
Stage 2	586	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	1.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	522	1145
HCM Lane V/C Ratio	-	-	0.331	0.064
HCM Control Delay (s)	-	-	15.3	8.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.4	0.2

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		T	T
Traffic Vol, veh/h	63	95	285	60	91	306
Future Vol, veh/h	63	95	285	60	91	306
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	-	-	-	150	-
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	68	103	310	65	99	333

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	874	188	0	0	375	0
Stage 1	343	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	304	823	-	-	1182	-
Stage 1	691	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	278	823	-	-	1182	-
Mov Cap-2 Maneuver	278	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	462	1182
HCM Lane V/C Ratio	-	-	0.372	0.084
HCM Control Delay (s)	-	-	17.3	8.3
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.7	0.3

This Page Intentionally Left Blank

**APPENDIX 7.6: HORIZON YEAR (2045) WITHOUT PROJECT  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Timings  
1: Singleton Rd. & I-10 EB Ramps

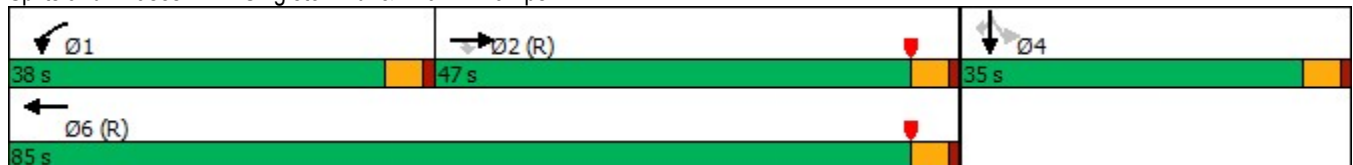
HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↓	↘↙
Traffic Volume (vph)	672	447	562	581	0	350
Future Volume (vph)	672	447	562	581	0	350
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	47.0	47.0	38.0	85.0	35.0	35.0
Total Split (%)	39.2%	39.2%	31.7%	70.8%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	51.0	51.0	25.0	80.5	30.5	30.5
Actuated g/C Ratio	0.42	0.42	0.21	0.67	0.25	0.25
v/c Ratio	0.45	0.48	0.78	0.24	0.53	0.36
Control Delay	22.7	3.5	65.0	9.3	43.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	3.5	65.0	9.3	43.4	4.7
LOS	C	A	E	A	D	A
Approach Delay	15.0			36.7	20.8	
Approach LOS	B			D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 24.9  
 Intersection Capacity Utilization 72.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C













Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



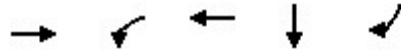


HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

HY (2045) Without Project AM Peak Hour  
 Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↗↘	↑↑						↖	↖↗
Traffic Volume (veh/h)	0	672	447	562	581	0	0	0	0	250	0	350
Future Volume (veh/h)	0	672	447	562	581	0	0	0	0	250	0	350
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	672	447	562	581	0				250	0	350
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1597	712	636	2384	0				453	0	709
Arrive On Green	0.00	0.45	0.45	0.37	1.00	0.00				0.25	0.00	0.25
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	672	447	562	581	0				250	0	350
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	15.4	26.0	18.3	0.0	0.0				14.6	0.0	12.8
Cycle Q Clear(g_c), s	0.0	15.4	26.0	18.3	0.0	0.0				14.6	0.0	12.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1597	712	636	2384	0				453	0	709
V/C Ratio(X)	0.00	0.42	0.63	0.88	0.24	0.00				0.55	0.00	0.49
Avail Cap(c_a), veh/h	0	1597	712	965	2384	0				453	0	709
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.24	0.24	0.87	0.87	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.4	25.3	36.7	0.0	0.0				38.8	0.0	38.2
Incr Delay (d2), s/veh	0.0	0.2	1.0	5.8	0.2	0.0				4.8	0.0	2.4
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	6.4	9.8	6.9	0.1	0.0				7.0	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.6	26.4	42.6	0.2	0.0				43.6	0.0	40.6
LnGrp LOS	A	C	C	D	A	A				D	A	D
Approach Vol, veh/h		1119			1143						600	
Approach Delay, s/veh		24.1			21.0						41.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.6	58.4		35.0		85.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	33.5	42.5		30.5		80.5						
Max Q Clear Time (g_c+I1), s	20.3	28.0		16.6		2.0						
Green Ext Time (p_c), s	1.8	5.6		2.6		4.6						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			26.6									
HCM 6th LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

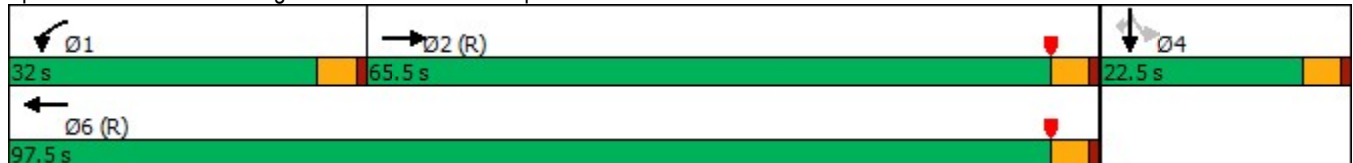


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	672	562	581	0	350
Future Volume (vph)	672	562	581	0	350
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	65.5	32.0	97.5	22.5	22.5
Total Split (%)	54.6%	26.7%	81.3%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	61.0	27.5	93.0	18.0	18.0
Actuated g/C Ratio	0.51	0.23	0.78	0.15	0.15
v/c Ratio	1.34	1.53	0.44	0.99	0.69
Control Delay	188.8	269.9	6.3	101.6	12.4
Queue Delay	0.0	0.0	1.5	0.0	0.0
Total Delay	188.8	269.9	7.8	101.6	12.4
LOS	F	F	A	F	B
Approach Delay	188.8		136.8	49.6	
Approach LOS	F		F	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), 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: 138.8  
 Intersection Capacity Utilization 152.1%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↔	↔
Traffic Volume (veh/h)	0	672	447	562	581	0	0	0	0	250	0	350
Future Volume (veh/h)	0	672	447	562	581	0	0	0	0	250	0	350
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	738	491	618	638	0				275	0	385
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	533	354	408	1450	0				267	0	238
Arrive On Green	0.00	0.51	0.51	0.46	1.00	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	1048	697	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1229	618	638	0				275	0	385
Grp Sat Flow(s),veh/h/ln	0	0	1745	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	61.0	27.5	0.0	0.0				18.0	0.0	18.0
Cycle Q Clear(g_c), s	0.0	0.0	61.0	27.5	0.0	0.0				18.0	0.0	18.0
Prop In Lane	0.00		0.40	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	887	408	1450	0				267	0	238
V/C Ratio(X)	0.00	0.00	1.39	1.51	0.44	0.00				1.03	0.00	1.62
Avail Cap(c_a), veh/h	0	0	887	408	1450	0				267	0	238
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	29.5	32.5	0.0	0.0				51.0	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.0	180.5	232.4	0.1	0.0				62.8	0.0	297.2
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	0.0	68.8	35.6	0.0	0.0				12.7	0.0	26.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	210.0	264.9	0.1	0.0				113.8	0.0	348.2
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1229			1256						660	
Approach Delay, s/veh		210.0			130.4						250.6	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	65.5		22.5		97.5						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	27.5	61.0		18.0		93.0						
Max Q Clear Time (g_c+I1), s	29.5	63.0		20.0		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		5.2						

Intersection Summary

HCM 6th Ctrl Delay	186.7
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) Without Project AM Peak Hour

Urbarn Crossroads, Inc.



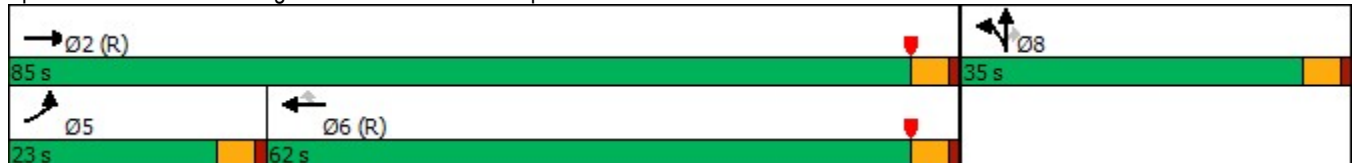
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶↶	↶↶	↶↶	↷	↶	↶↷	↷
Traffic Volume (vph)	411	660	833	611	309	0	323
Future Volume (vph)	411	660	833	611	309	0	323
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	85.0	62.0	62.0	35.0	35.0	35.0
Total Split (%)	19.2%	70.8%	51.7%	51.7%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	18.5	89.0	66.0	66.0	22.0	22.0	22.0
Actuated g/C Ratio	0.15	0.74	0.55	0.55	0.18	0.18	0.18
v/c Ratio	0.78	0.25	0.43	0.53	0.71	0.66	0.46
Control Delay	58.0	4.7	9.9	1.8	57.9	42.4	8.5
Queue Delay	0.0	0.0	0.2	0.2	0.0	0.0	0.0
Total Delay	58.0	4.7	10.1	2.0	57.9	42.4	8.5
LOS	E	A	B	A	E	D	A
Approach Delay		25.1	6.7			37.1	
Approach LOS		C	A			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 19.1  
 Intersection Capacity Utilization 72.7%  
 Analysis Period (min) 15
























Intersection LOS: B  
 ICU Level of Service C

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	411	660	0	0	833	611	309	0	323	0	0	0
Future Volume (veh/h)	411	660	0	0	833	611	309	0	323	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	411	660	0	0	833	611	412	0	213			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	465	2713	0	0	2102	938	575	0	256			
Arrive On Green	0.27	1.00	0.00	0.00	1.00	1.00	0.21	0.00	0.21			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	411	660	0	0	833	611	412	0	213			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	13.7	0.0	0.0	0.0	0.0	0.0	12.9	0.0	15.4			
Cycle Q Clear(g_c), s	13.7	0.0	0.0	0.0	0.0	0.0	12.9	0.0	15.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	465	2713	0	0	2102	938	575	0	256			
V/C Ratio(X)	0.88	0.24	0.00	0.00	0.40	0.65	0.72	0.00	0.83			
Avail Cap(c_a), veh/h	533	2713	0	0	2102	938	905	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.30	1.30	1.30			
Upstream Filter(l)	0.89	0.89	0.00	0.00	0.66	0.66	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.0	0.0	0.0	0.0	0.0	0.0	44.8	0.0	45.8			
Incr Delay (d2), s/veh	13.4	0.2	0.0	0.0	0.4	2.3	1.7	0.0	8.2			
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	5.9	0.1	0.0	0.0	0.1	0.6	5.6	0.0	6.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	0.2	0.0	0.0	0.4	2.3	46.5	0.0	54.1			
LnGrp LOS	E	A	A	A	A	A	D	A	D			
Approach Vol, veh/h		1071			1444			625				
Approach Delay, s/veh		21.8			1.2			49.1				
Approach LOS		C			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		96.1			20.6	75.5		23.9				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		80.5			18.5	57.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0			15.7	2.0		17.4				
Green Ext Time (p_c), s		5.4			0.5	11.4		1.9				









Intersection Summary

HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

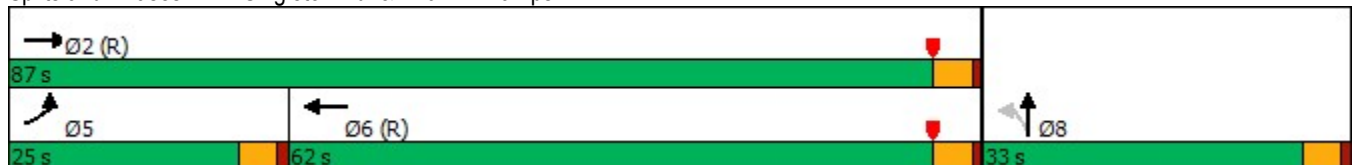
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	411	660	833	0
Future Volume (vph)	411	660	833	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	25.0	87.0	62.0	33.0
Total Split (%)	20.8%	72.5%	51.7%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	20.5	82.5	57.5	28.5
Actuated g/C Ratio	0.17	0.69	0.48	0.24
v/c Ratio	1.46	0.55	1.80	1.53
Control Delay	247.2	12.6	388.4	280.1
Queue Delay	0.0	1.5	0.0	0.0
Total Delay	247.2	14.2	388.4	280.1
LOS	F	B	F	F
Approach Delay		103.6	388.4	280.1
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.80  
 Intersection Signal Delay: 269.7  
 Intersection LOS: F  
 Intersection Capacity Utilization 152.1%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	411	660	0	0	833	611	309	0	323	0	0	0
Future Volume (veh/h)	411	660	0	0	833	611	309	0	323	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	442	710	0	0	896	657	332	0	347			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	304	1286	0	0	480	352	195	0	203			
Arrive On Green	0.34	1.00	0.00	0.00	0.48	0.48	0.24	0.00	0.24			
Sat Flow, veh/h	1781	1870	0	0	1003	735	819	0	856			
Grp Volume(v), veh/h	442	710	0	0	0	1553	679	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1738	1675	0	0			
Q Serve(g_s), s	20.5	0.0	0.0	0.0	0.0	57.5	28.5	0.0	0.0			
Cycle Q Clear(g_c), s	20.5	0.0	0.0	0.0	0.0	57.5	28.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.42	0.49		0.51			
Lane Grp Cap(c), veh/h	304	1286	0	0	0	833	398	0	0			
V/C Ratio(X)	1.45	0.55	0.00	0.00	0.00	1.86	1.71	0.00	0.00			
Avail Cap(c_a), veh/h	304	1286	0	0	0	833	398	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	39.5	0.0	0.0	0.0	0.0	31.3	45.8	0.0	0.0			
Incr Delay (d2), s/veh	205.3	0.2	0.0	0.0	0.0	393.8	328.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	24.8	0.1	0.0	0.0	0.0	114.2	48.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	244.8	0.2	0.0	0.0	0.0	425.0	374.3	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1152			1553			679				
Approach Delay, s/veh		94.0			425.0			374.3				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.0			25.0	62.0		33.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		82.5			20.5	57.5		28.5				
Max Q Clear Time (g_c+I1), s		2.0			22.5	59.5		30.5				
Green Ext Time (p_c), s		6.2			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					302.2							
HCM 6th LOS					F							

Timings  
3: Calimesa Bl. & Singleton Rd.

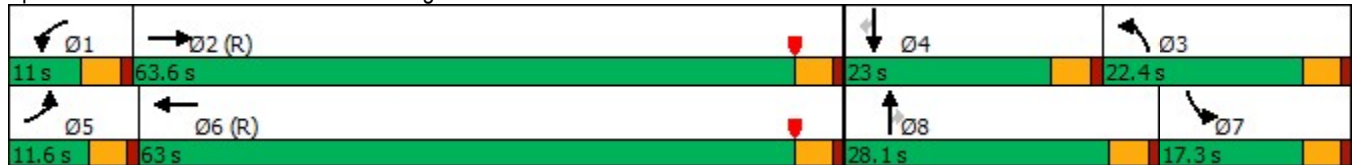
HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	188	832	34	1147	136	284	160	88	24	200
Future Volume (vph)	188	832	34	1147	136	284	160	88	24	200
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	11.6	63.6	11.0	63.0	22.4	28.1	28.1	17.3	23.0	23.0
Total Split (%)	9.7%	53.0%	9.2%	52.5%	18.7%	23.4%	23.4%	14.4%	19.2%	19.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	11.1	72.3	7.0	63.9	15.3	15.3	15.3	11.7	11.7	11.7
Actuated g/C Ratio	0.09	0.60	0.06	0.53	0.13	0.13	0.13	0.10	0.10	0.10
v/c Ratio	0.59	0.42	0.32	0.71	0.60	0.63	0.47	0.51	0.07	0.63
Control Delay	53.3	14.2	59.8	16.7	54.3	73.3	28.2	61.4	48.1	18.6
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.3	14.4	59.8	16.7	54.3	73.3	28.2	61.4	48.1	18.6
LOS	D	B	E	B	D	E	C	E	D	B
Approach Delay		21.2		17.8		56.4			33.0	
Approach LOS		C		B		E			C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 26.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 75.5%  
 ICU Level of Service D  
 Analysis Period (min) 15

































Splits and Phases: 3: Calimesa Bl. & Singleton Rd.





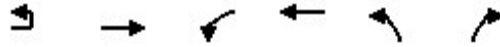
HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 	 	 	 	 
Traffic Volume (veh/h)	188	832	62	34	1147	236	136	284	160	88	24	200
Future Volume (veh/h)	188	832	62	34	1147	236	136	284	160	88	24	200
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	188	832	62	34	1147	236	136	284	160	88	24	200
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	2031	151	50	1732	354	164	422	188	173	440	196
Arrive On Green	0.12	1.00	1.00	0.06	1.00	1.00	0.09	0.12	0.12	0.10	0.12	0.12
Sat Flow, veh/h	3456	3352	250	1781	3014	616	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	188	441	453	34	709	674	136	284	160	88	24	200
Grp Sat Flow(s),veh/h/ln	1728	1777	1825	1781	1870	1759	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.5	0.0	0.0	2.2	0.0	0.0	9.0	9.2	10.5	5.6	0.7	12.6
Cycle Q Clear(g_c), s	6.5	0.0	0.0	2.2	0.0	0.0	9.0	9.2	10.5	5.6	0.7	12.6
Prop In Lane	1.00		0.14	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	1076	1106	50	1075	1011	164	422	188	173	440	196
V/C Ratio(X)	0.92	0.41	0.41	0.68	0.66	0.67	0.83	0.67	0.85	0.51	0.05	1.02
Avail Cap(c_a), veh/h	204	1076	1106	96	1075	1011	266	699	312	190	548	244
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	0.0	0.0	56.1	0.0	0.0	53.5	50.6	40.4	51.5	46.4	37.7
Incr Delay (d2), s/veh	40.1	1.1	1.1	14.6	3.2	3.5	10.9	1.9	11.0	2.3	0.1	59.2
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	3.8	0.3	0.3	1.2	0.9	1.0	4.5	4.2	4.7	2.6	0.3	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.7	1.1	1.1	70.7	3.2	3.5	64.4	52.5	51.3	53.8	46.4	96.9
LnGrp LOS	F	A	A	E	A	A	E	D	D	D	D	F
Approach Vol, veh/h		1082			1417			580			312	
Approach Delay, s/veh		17.0			4.9			55.0			80.8	
Approach LOS		B			A			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	77.2	15.6	19.4	11.6	73.5	16.2	18.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	59.1	17.9	18.5	7.1	58.5	12.8	23.6				
Max Q Clear Time (g_c+I1), s	4.2	2.0	11.0	14.6	8.5	2.0	7.6	12.5				
Green Ext Time (p_c), s	0.0	7.1	0.2	0.3	0.0	14.9	0.1	1.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			24.3									
HCM 6th LOS			C									

Timings  
4: Beckwith Av. & Singleton Rd.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

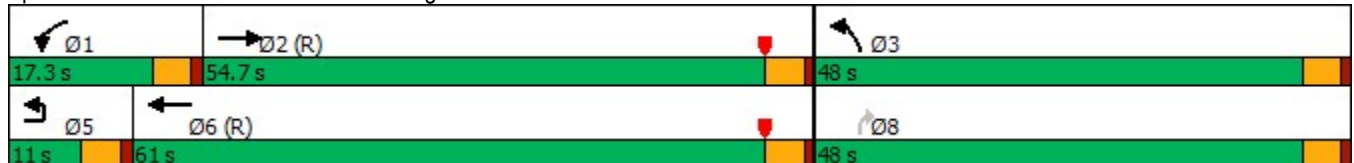


Lane Group	EBU	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↔	↔	↕↕	↔	↕↔
Traffic Volume (vph)	31	859	91	967	429	104
Future Volume (vph)	31	859	91	967	429	104
Turn Type	Prot	NA	Prot	NA	Prot	Perm
Protected Phases	5	2	1	6	3	
Permitted Phases						8
Detector Phase	5	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	11.0	54.7	17.3	61.0	48.0	48.0
Total Split (%)	9.2%	45.6%	14.4%	50.8%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	C-Max	None	Max
Act Effect Green (s)	6.3	52.2	10.8	60.9	43.5	43.5
Actuated g/C Ratio	0.05	0.44	0.09	0.51	0.36	0.36
v/c Ratio	0.34	0.68	0.58	0.54	0.67	0.16
Control Delay	74.1	25.5	60.4	19.1	38.4	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.1	25.5	60.4	19.1	38.4	5.5
LOS	E	C	E	B	D	A
Approach Delay		26.9		22.7	32.0	
Approach LOS		C		C	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 26.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 69.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↔		↕	↕↕	↕	↕
Traffic Volume (veh/h)	31	859	177	91	967	429	104
Future Volume (veh/h)	31	859	177	91	967	429	104
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		859	177	91	967	429	104
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1644	339	115	2353	468	417
Arrive On Green		1.00	1.00	0.06	0.66	0.26	0.26
Sat Flow, veh/h		3027	604	1781	3647	1781	1585
Grp Volume(v), veh/h		520	516	91	967	429	104
Grp Sat Flow(s),veh/h/ln		1777	1762	1781	1777	1781	1585
Q Serve(g_s), s		0.0	0.0	6.0	15.2	28.1	6.2
Cycle Q Clear(g_c), s		0.0	0.0	6.0	15.2	28.1	6.2
Prop In Lane			0.34	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		996	987	115	2353	468	417
V/C Ratio(X)		0.52	0.52	0.79	0.41	0.92	0.25
Avail Cap(c_a), veh/h		996	987	190	2353	646	575
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	55.4	9.4	43.0	34.9
Incr Delay (d2), s/veh		2.0	2.0	11.6	0.5	14.4	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.5	0.5	3.1	5.7	14.0	2.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		2.0	2.0	67.0	9.9	57.4	35.2
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		1036			1058	533	
Approach Delay, s/veh		2.0			14.8	53.1	
Approach LOS		A			B	D	
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.2	71.7				84.0	36.0
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	12.8	50.2				56.5	43.5
Max Q Clear Time (g_c+I1), s	8.0	2.0				17.2	30.1
Green Ext Time (p_c), s	0.1	8.9				8.7	1.5

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

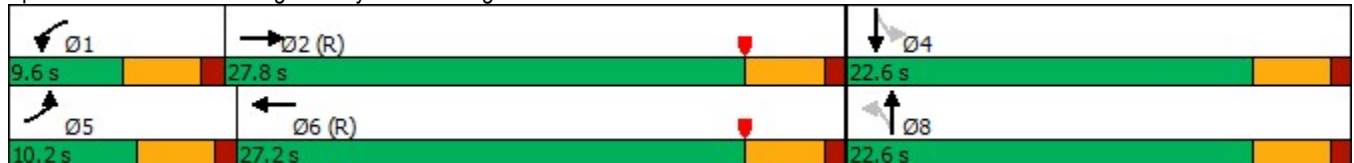


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↙	↕
Traffic Volume (vph)	42	887	13	836	91	13	25	5
Future Volume (vph)	42	887	13	836	91	13	25	5
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	10.2	27.8	9.6	27.2	22.6	22.6	22.6	22.6
Total Split (%)	17.0%	46.3%	16.0%	45.3%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.7	31.0	5.1	28.8	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.10	0.52	0.08	0.48	0.30	0.30	0.30	0.30
v/c Ratio	0.25	0.51	0.09	0.50	0.24	0.07	0.06	0.24
Control Delay	24.4	22.3	26.8	13.1	17.9	9.3	15.5	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	22.3	26.8	13.1	17.9	9.3	15.5	5.1
LOS	C	C	C	B	B	A	B	A
Approach Delay		22.4		13.3		15.4		6.7
Approach LOS		C		B		B		A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 17.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 61.4%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	887	34	13	836	15	91	13	24	25	5	130
Future Volume (veh/h)	42	887	34	13	836	15	91	13	24	25	5	130
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	42	887	34	13	836	15	91	13	24	25	5	130
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1595	61	29	1541	28	417	178	328	512	18	463
Arrive On Green	0.04	0.46	0.46	0.02	0.43	0.43	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3489	134	1781	3572	64	1254	588	1086	1371	59	1535
Grp Volume(v), veh/h	42	452	469	13	416	435	91	0	37	25	0	135
Grp Sat Flow(s),veh/h/ln	1781	1777	1846	1781	1777	1859	1254	0	1675	1371	0	1594
Q Serve(g_s), s	1.4	11.1	11.1	0.4	10.4	10.4	3.6	0.0	0.9	0.8	0.0	3.9
Cycle Q Clear(g_c), s	1.4	11.1	11.1	0.4	10.4	10.4	7.5	0.0	0.9	1.7	0.0	3.9
Prop In Lane	1.00		0.07	1.00		0.03	1.00		0.65	1.00		0.96
Lane Grp Cap(c), veh/h	75	812	844	29	766	802	417	0	505	512	0	481
V/C Ratio(X)	0.56	0.56	0.56	0.45	0.54	0.54	0.22	0.00	0.07	0.05	0.00	0.28
Avail Cap(c_a), veh/h	169	812	844	151	766	802	417	0	505	512	0	481
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(l)	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	28.2	11.9	11.9	29.2	12.7	12.7	18.8	0.0	15.0	15.6	0.0	16.0
Incr Delay (d2), s/veh	6.5	2.7	2.6	10.5	2.7	2.6	1.2	0.0	0.3	0.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.3	4.5	0.3	4.2	4.3	1.1	0.0	0.4	0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	14.6	14.5	39.8	15.4	15.3	20.0	0.0	15.2	15.8	0.0	17.4
LnGrp LOS	C	B	B	D	B	B	C	A	B	B	A	B
Approach Vol, veh/h		963			864			128				160
Approach Delay, s/veh		15.4			15.7			18.6				17.2
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	31.9		22.6	7.0	30.4		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.7	22.7		18.1				
Max Q Clear Time (g_c+I1), s	2.4	13.1		5.9	3.4	12.4		9.5				
Green Ext Time (p_c), s	0.0	4.2		0.6	0.0	3.9		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				15.9								
HCM 6th LOS				B								

Timings  
6: Calimesa Bl. & 5th St.

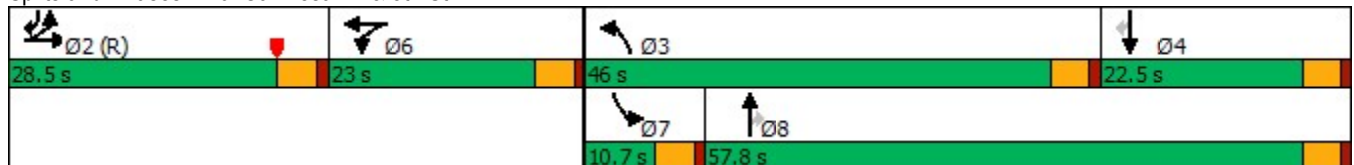
HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	265	411	37	472	1110	533	231	28	164	497
Future Volume (vph)	265	411	37	472	1110	533	231	28	164	497
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	28.5	28.5	23.0	23.0	46.0	57.8	57.8	10.7	22.5	28.5
Total Split (%)	23.8%	23.8%	19.2%	19.2%	38.3%	48.2%	48.2%	8.9%	18.8%	23.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	24.0	24.0	18.4	18.4	40.5	57.7	57.7	6.1	19.1	47.6
Actuated g/C Ratio	0.20	0.20	0.15	0.15	0.34	0.48	0.48	0.05	0.16	0.40
v/c Ratio	0.74	0.83	0.14	0.91	0.93	0.60	0.29	0.31	0.55	0.73
Control Delay	60.0	55.6	45.4	72.5	41.2	26.2	13.0	64.4	55.0	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Total Delay	60.0	55.6	45.4	72.5	41.2	26.9	13.0	64.4	55.0	32.0
LOS	E	E	D	E	D	C	B	E	E	C
Approach Delay		56.9		70.6		33.7			38.8	
Approach LOS		E		E		C			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 44.4  
 Intersection Capacity Utilization 87.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

HY (2045) Without Project AM Peak Hour  
Urban Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	411	120	37	472	23	1110	533	231	28	164	497
Future Volume (veh/h)	265	411	120	37	472	23	1110	533	231	28	164	497
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	245	439	60	37	472	13	1110	533	121	28	164	257
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	389	705	96	266	528	15	1182	854	724	45	281	584
Arrive On Green	0.22	0.28	0.22	0.15	0.19	0.15	0.33	0.46	0.46	0.03	0.15	0.15
Sat Flow, veh/h	1781	3224	438	1781	3533	97	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	245	254	245	37	237	248	1110	533	121	28	164	257
Grp Sat Flow(s),veh/h/ln	1781	1870	1792	1781	1777	1853	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	15.0	14.1	14.5	2.2	15.6	15.7	36.3	26.0	5.4	1.9	9.8	14.7
Cycle Q Clear(g_c), s	15.0	14.1	14.5	2.2	15.6	15.7	36.3	26.0	5.4	1.9	9.8	14.7
Prop In Lane	1.00		0.24	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	409	392	266	266	277	1182	854	724	45	281	584
V/C Ratio(X)	0.63	0.62	0.63	0.14	0.89	0.89	0.94	0.62	0.17	0.62	0.58	0.44
Avail Cap(c_a), veh/h	389	409	392	275	274	286	1232	854	724	92	281	584
HCM Platoon Ratio	1.00	1.30	1.00	1.00	1.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	42.5	38.6	39.6	44.3	47.4	47.6	38.9	24.8	19.2	57.9	47.5	28.5
Incr Delay (d2), s/veh	7.5	6.9	7.4	0.2	28.2	27.7	13.3	3.4	0.5	13.2	8.6	2.4
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	7.4	7.0	7.0	1.0	8.7	9.1	17.6	12.0	2.1	1.0	5.2	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	45.5	47.0	44.6	75.6	75.3	52.2	28.2	19.7	71.1	56.1	30.9
LnGrp LOS	D	D	D	D	E	E	D	C	B	E	E	C
Approach Vol, veh/h		744			522			1764				449
Approach Delay, s/veh		47.5			73.2			42.7				42.7
Approach LOS		D			E			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.7	44.3	22.5		22.4	7.5	59.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.0	41.5	18.0		18.5	6.2	53.3				
Max Q Clear Time (g_c+I1), s		17.0	38.3	16.7		17.7	3.9	28.0				
Green Ext Time (p_c), s		2.2	1.5	0.3		0.3	0.0	3.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			48.3									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
7: Roberts Rd. & Cherry Valley Bl.

HY (2045) Without Project AM Peak Hour

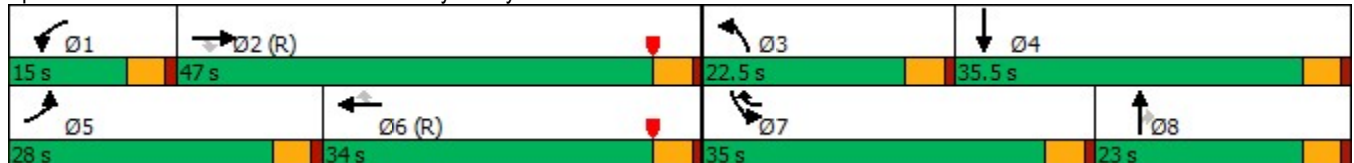
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	422	584	25	149	512	408	13	28	141	579	25
Future Volume (vph)	422	584	25	149	512	408	13	28	141	579	25
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	47.0	47.0	15.0	34.0	35.0	22.5	23.0	23.0	35.0	35.5
Total Split (%)	23.3%	39.2%	39.2%	12.5%	28.3%	29.2%	18.8%	19.2%	19.2%	29.2%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	19.6	43.3	43.3	9.7	33.4	68.4	18.0	18.5	18.5	30.5	31.0
Actuated g/C Ratio	0.16	0.36	0.36	0.08	0.28	0.57	0.15	0.15	0.15	0.25	0.26
v/c Ratio	0.75	0.46	0.04	0.54	0.52	0.40	0.05	0.10	0.36	0.66	0.53
Control Delay	56.5	31.0	0.1	55.3	37.8	4.7	44.4	44.7	5.5	44.5	8.5
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	56.5	31.0	0.1	55.3	37.8	4.7	44.4	44.7	5.5	44.5	8.5
LOS	E	C	A	E	D	A	D	D	A	D	A
Approach Delay		40.7			27.6			14.3			31.1
Approach LOS		D			C			B			C

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 32.1	Intersection LOS: C
Intersection Capacity Utilization 60.6%	ICU Level of Service B
Analysis Period (min) 15	






























Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 					 		
Traffic Volume (veh/h)	422	584	25	149	512	408	13	28	141	579	25	319
Future Volume (veh/h)	422	584	25	149	512	408	13	28	141	579	25	319
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	422	584	25	149	512	408	13	28	141	579	25	319
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	493	1360	607	204	1063	877	267	288	244	878	30	384
Arrive On Green	0.19	0.50	0.50	0.12	0.60	0.60	0.15	0.15	0.15	0.25	0.26	0.26
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	116	1486
Grp Volume(v), veh/h	422	584	25	149	512	408	13	28	141	579	0	344
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1603
Q Serve(g_s), s	14.2	12.6	1.0	5.0	9.8	16.3	0.7	1.5	9.9	18.0	0.0	24.3
Cycle Q Clear(g_c), s	14.2	12.6	1.0	5.0	9.8	16.3	0.7	1.5	9.9	18.0	0.0	24.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	493	1360	607	204	1063	877	267	288	244	878	0	414
V/C Ratio(X)	0.86	0.43	0.04	0.73	0.48	0.47	0.05	0.10	0.58	0.66	0.00	0.83
Avail Cap(c_a), veh/h	677	1360	607	302	1063	877	267	288	244	878	0	414
HCM Platoon Ratio	1.30	1.30	1.30	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.7	21.8	18.9	52.0	18.9	9.0	43.7	43.6	47.1	40.1	0.0	42.0
Incr Delay (d2), s/veh	7.9	1.0	0.1	4.7	1.5	1.7	0.3	0.7	9.6	3.9	0.0	17.4
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	6.3	5.0	0.4	2.2	3.5	3.7	0.4	0.8	4.6	8.1	0.0	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	22.8	19.0	56.8	20.4	10.6	44.0	44.2	56.7	44.0	0.0	59.4
LnGrp LOS	E	C	B	E	C	B	D	D	E	D	A	E
Approach Vol, veh/h		1031			1069			182			923	
Approach Delay, s/veh		36.1			21.7			53.9			49.7	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	50.4	22.5	35.5	21.6	40.4	35.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	42.5	18.0	31.0	23.5	29.5	30.5	18.5				
Max Q Clear Time (g_c+I1), s	7.0	14.6	2.7	26.3	16.2	18.3	20.0	11.9				
Green Ext Time (p_c), s	0.1	4.2	0.0	0.9	0.9	3.7	1.7	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				36.2								
HCM 6th LOS				D								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↓	↔
Traffic Volume (vph)	1086	219	457	573	0	496
Future Volume (vph)	1086	219	457	573	0	496
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	50.0	50.0	26.0	76.0	44.0	44.0
Total Split (%)	41.7%	41.7%	21.7%	63.3%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Min	Max	Max
Act Effct Green (s)	47.2	47.2	19.8	71.5	39.5	39.5
Actuated g/C Ratio	0.39	0.39	0.16	0.60	0.33	0.33
v/c Ratio	0.78	0.31	0.81	0.27	0.76	0.40
Control Delay	36.4	15.3	73.9	12.5	45.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	15.3	73.9	12.5	45.6	3.5
LOS	D	B	E	B	D	A
Approach Delay	32.9			39.7	23.3	
Approach LOS	C			D	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 32.3  
 Intersection Capacity Utilization 85.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



















HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) Without Project AM Peak Hour  
 Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↗↗	↑↑						↖	↖↖
Traffic Volume (veh/h)	0	1086	219	457	573	0	0	0	0	440	0	496
Future Volume (veh/h)	0	1086	219	457	573	0	0	0	0	440	0	496
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	1086	219	457	573	0				440	0	496
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1455	649	515	2117	0				586	0	918
Arrive On Green	0.00	0.54	0.54	0.30	1.00	0.00				0.33	0.00	0.33
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1086	219	457	573	0				440	0	496
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	28.1	9.3	15.1	0.0	0.0				26.4	0.0	17.4
Cycle Q Clear(g_c), s	0.0	28.1	9.3	15.1	0.0	0.0				26.4	0.0	17.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1455	649	515	2117	0				586	0	918
V/C Ratio(X)	0.00	0.75	0.34	0.89	0.27	0.00				0.75	0.00	0.54
Avail Cap(c_a), veh/h	0	1455	649	619	2117	0				586	0	918
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.83	0.83	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.5	18.2	41.2	0.0	0.0				35.9	0.0	32.8
Incr Delay (d2), s/veh	0.0	2.9	1.2	11.0	0.3	0.0				8.6	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.7	3.3	6.1	0.1	0.0				12.8	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.5	19.4	52.2	0.3	0.0				44.4	0.0	35.1
LnGrp LOS	A	C	B	D	A	A				D	A	D
Approach Vol, veh/h		1305			1030							936
Approach Delay, s/veh		24.5			23.3							39.5
Approach LOS		C			C							D
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.4	53.6		44.0		76.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	21.5	45.5		39.5		71.5						
Max Q Clear Time (g_c+I1), s	17.1	30.1		28.4		2.0						
Green Ext Time (p_c), s	0.7	7.4		3.9		4.3						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				28.4								
HCM 6th LOS				C								

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

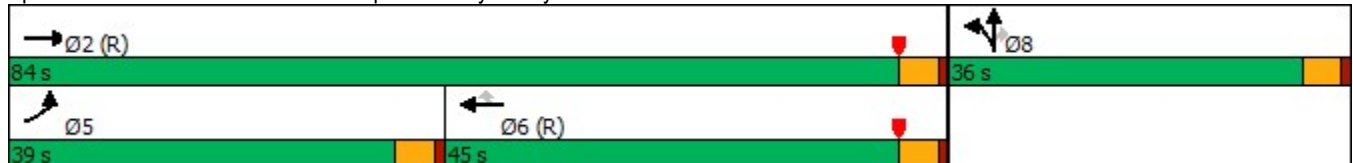
HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

						
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	 	 	 		 	
Traffic Volume (vph)	778	748	825	652	12	497
Future Volume (vph)	778	748	825	652	12	497
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	39.0	84.0	45.0	45.0	36.0	36.0
Total Split (%)	32.5%	70.0%	37.5%	37.5%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Max	C-Max	None	None
Act Effct Green (s)	31.6	87.0	50.9	50.9	24.0	24.0
Actuated g/C Ratio	0.26	0.72	0.42	0.42	0.20	0.20
v/c Ratio	0.86	0.29	0.55	0.60	0.61	0.87
Control Delay	56.5	6.2	20.9	4.8	49.9	38.0
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	56.5	6.2	20.9	4.9	49.9	38.0
LOS	E	A	C	A	D	D
Approach Delay		31.9	13.8		41.6	
Approach LOS		C	B		D	

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 26.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 85.7%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



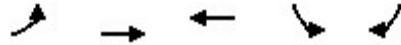
HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

HY (2045) Without Project AM Peak Hour  
 Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 							
Traffic Volume (veh/h)	778	748	0	0	825	652	204	12	497	0	0	0
Future Volume (veh/h)	778	748	0	0	825	652	204	12	497	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	778	748	0	0	825	652	204	12	497			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	847	2354	0	0	1350	602	443	26	416			
Arrive On Green	0.41	1.00	0.00	0.00	0.76	0.76	0.26	0.26	0.26			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1687	99	1585			
Grp Volume(v), veh/h	778	748	0	0	825	652	216	0	497			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1786	0	1585			
Q Serve(g_s), s	25.6	0.0	0.0	0.0	12.5	45.6	12.2	0.0	31.5			
Cycle Q Clear(g_c), s	25.6	0.0	0.0	0.0	12.5	45.6	12.2	0.0	31.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	847	2354	0	0	1350	602	469	0	416			
V/C Ratio(X)	0.92	0.32	0.00	0.00	0.61	1.08	0.46	0.00	1.19			
Avail Cap(c_a), veh/h	994	2354	0	0	1350	602	469	0	416			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.53	0.53	0.00	0.00	0.57	0.57	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.3	0.0	0.0	0.0	10.4	14.4	37.1	0.0	44.3			
Incr Delay (d2), s/veh	7.0	0.2	0.0	0.0	1.2	53.0	0.7	0.0	108.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.9	0.1	0.0	0.0	3.3	13.7	5.4	0.0	24.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	0.2	0.0	0.0	11.6	67.5	37.8	0.0	153.1			
LnGrp LOS	D	A	A	A	B	F	D	A	F			
Approach Vol, veh/h		1526			1477			713				
Approach Delay, s/veh		21.1			36.3			118.2				
Approach LOS		C			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.0			33.9	50.1		36.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		79.5			34.5	40.5		31.5				
Max Q Clear Time (g_c+I1), s		2.0			27.6	47.6		33.5				
Green Ext Time (p_c), s		6.0			1.9	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				45.8								
HCM 6th LOS				D								

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

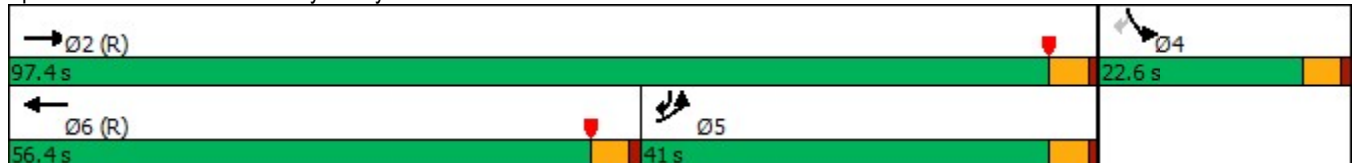


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑↑	↑↑	↖	↗
Traffic Volume (vph)	417	829	1099	94	378
Future Volume (vph)	417	829	1099	94	378
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	41.0	97.4	56.4	22.6	41.0
Total Split (%)	34.2%	81.2%	47.0%	18.8%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	36.5	92.9	51.9	18.1	59.1
Actuated g/C Ratio	0.30	0.77	0.43	0.15	0.49
v/c Ratio	0.78	0.30	0.84	0.35	0.47
Control Delay	44.7	5.2	36.4	51.0	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	5.2	36.4	51.0	21.1
LOS	D	A	D	D	C
Approach Delay		18.4	36.4	27.1	
Approach LOS		B	D	C	

Intersection Summary

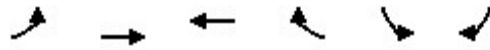
Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 27.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 75.5%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) Without Project AM Peak Hour  
 Urbarn Crossroads, Inc.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	417	829	1099	174	94	378
Future Volume (veh/h)	417	829	1099	174	94	378
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	417	829	1099	174	94	378
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	542	2751	1330	210	269	721
Arrive On Green	0.61	1.00	0.43	0.43	0.15	0.15
Sat Flow, veh/h	1781	3647	3168	485	1781	1585
Grp Volume(v), veh/h	417	829	634	639	94	378
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1783	1781	1585
Q Serve(g_s), s	20.7	0.0	37.8	38.0	5.7	0.0
Cycle Q Clear(g_c), s	20.7	0.0	37.8	38.0	5.7	0.0
Prop In Lane	1.00			0.27	1.00	1.00
Lane Grp Cap(c), veh/h	542	2751	768	771	269	721
V/C Ratio(X)	0.77	0.30	0.82	0.83	0.35	0.52
Avail Cap(c_a), veh/h	542	2751	768	771	269	721
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	30.0	30.1	45.7	23.4
Incr Delay (d2), s/veh	5.6	0.2	9.8	10.0	3.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.1	17.7	17.9	2.8	13.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.1	0.2	39.9	40.1	49.2	26.1
LnGrp LOS	C	A	D	D	D	C
Approach Vol, veh/h		1246	1273		472	
Approach Delay, s/veh		8.9	40.0		30.7	
Approach LOS		A	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	41.0	56.4
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	36.5	51.9
Max Q Clear Time (g_c+I1), s		2.0		7.7	22.7	40.0
Green Ext Time (p_c), s		6.9		1.2	1.1	6.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			25.6			
HCM 6th LOS			C			

Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) Without Project AM Peak Hour  
 Urbarn Crossroads, Inc.

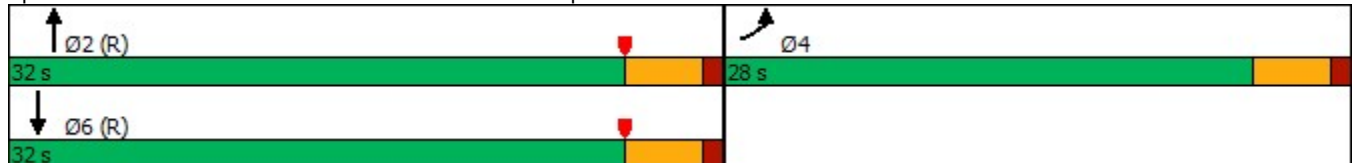


Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	585	1466	268
Future Volume (vph)	585	1466	268
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	28.0	32.0	32.0
Total Split (%)	46.7%	53.3%	53.3%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	22.3	28.7	28.7
Actuated g/C Ratio	0.37	0.48	0.48
v/c Ratio	0.89	0.82	0.30
Control Delay	36.1	19.3	9.7
Queue Delay	0.0	0.0	0.0
Total Delay	36.1	19.3	9.7
LOS	D	B	A
Approach Delay	36.1	19.3	9.7
Approach LOS	D	B	A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 22.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 80.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp





HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) Without Project AM Peak Hour  
 Urbarn Crossroads, Inc.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	585	3	0	1466	268	0
Future Volume (veh/h)	585	3	0	1466	268	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	585	3	0	1466	268	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	636	3	0	1833	917	0
Arrive On Green	0.36	0.36	0.00	0.49	0.49	0.00
Sat Flow, veh/h	1768	9	0	3741	1870	0
Grp Volume(v), veh/h	589	0	0	1466	268	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1870	1870	0
Q Serve(g_s), s	19.0	0.0	0.0	19.7	5.1	0.0
Cycle Q Clear(g_c), s	19.0	0.0	0.0	19.7	5.1	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	641	0	0	1833	917	0
V/C Ratio(X)	0.92	0.00	0.00	0.80	0.29	0.00
Avail Cap(c_a), veh/h	697	0	0	1833	917	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	12.8	9.1	0.0
Incr Delay (d2), s/veh	16.6	0.0	0.0	3.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	0.0	7.5	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.0	0.0	0.0	16.6	9.9	0.0
LnGrp LOS	C	A	A	B	A	A
Approach Vol, veh/h	589			1466	268	
Approach Delay, s/veh	35.0			16.6	9.9	
Approach LOS	C			B	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		33.9		26.1		33.9
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		27.5		23.5		27.5
Max Q Clear Time (g_c+I1), s		21.7		21.0		7.1
Green Ext Time (p_c), s		4.3		0.6		1.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			20.5			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

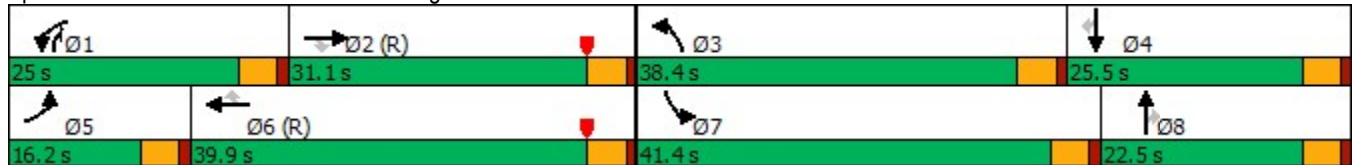
HY (2045) Without Project AM Peak Hour  
Urban Crossroads, Inc.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	747	118	310	626	231	419	252	571	531	245	158
Future Volume (vph)	76	747	118	310	626	231	419	252	571	531	245	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	16.2	31.1	31.1	25.0	39.9	39.9	38.4	22.5	25.0	41.4	25.5	25.5
Total Split (%)	13.5%	25.9%	25.9%	20.8%	33.3%	33.3%	32.0%	18.8%	20.8%	34.5%	21.3%	21.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	9.9	26.8	26.8	24.6	43.8	43.8	31.5	13.6	42.8	36.9	19.1	19.1
Actuated g/C Ratio	0.08	0.22	0.22	0.20	0.36	0.36	0.26	0.11	0.36	0.31	0.16	0.16
v/c Ratio	0.52	0.90	0.26	0.43	0.46	0.32	0.90	0.60	0.94	0.98	0.41	0.41
Control Delay	65.2	60.1	5.9	40.4	33.3	9.6	66.4	56.2	58.1	74.8	48.0	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	60.1	5.9	40.4	33.3	9.6	66.4	56.2	58.1	74.8	48.0	10.1
LOS	E	E	A	D	C	A	E	E	E	E	D	B
Approach Delay		53.7			30.5			60.5			56.8	
Approach LOS		D			C			E			E	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 49 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 50.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 96.7%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

HY (2045) Without Project AM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	747	118	310	626	231	419	252	571	531	245	158
Future Volume (veh/h)	76	747	118	310	626	231	419	252	571	531	245	158
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	76	747	68	310	626	121	419	252	311	531	245	83
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1066	452	383	1264	536	448	561	408	548	770	326
Arrive On Green	0.05	0.28	0.28	0.11	0.34	0.34	0.25	0.15	0.15	0.31	0.21	0.21
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	76	747	68	310	626	121	419	252	311	531	245	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.1	21.4	3.8	10.2	16.0	6.6	27.6	7.4	18.0	35.3	6.7	5.3
Cycle Q Clear(g_c), s	5.1	21.4	3.8	10.2	16.0	6.6	27.6	7.4	18.0	35.3	6.7	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1066	452	383	1264	536	448	561	408	548	770	326
V/C Ratio(X)	0.78	0.70	0.15	0.81	0.50	0.23	0.93	0.45	0.76	0.97	0.32	0.25
Avail Cap(c_a), veh/h	174	1066	452	609	1264	536	503	561	408	548	770	326
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	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	38.3	32.1	52.3	31.6	28.5	43.9	46.5	41.1	41.0	40.5	39.9
Incr Delay (d2), s/veh	12.7	3.8	0.7	4.2	1.3	0.9	23.5	0.6	8.2	30.7	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.4	1.6	4.8	7.4	2.7	15.0	3.5	9.4	19.9	3.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	42.2	32.8	56.6	32.9	29.4	67.4	47.0	49.4	71.7	40.7	40.3
LnGrp LOS	E	D	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		891			1057			982			859	
Approach Delay, s/veh		43.7			39.5			56.5			59.8	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.4	38.7	34.7	29.2	11.0	45.1	41.4	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.5	26.6	33.9	21.0	11.7	35.4	36.9	18.0				
Max Q Clear Time (g_c+I1), s	12.2	23.4	29.6	8.7	7.1	18.0	37.3	20.0				
Green Ext Time (p_c), s	0.7	1.6	0.6	1.4	0.1	4.4	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.5									
HCM 6th LOS			D									

Timings  
1: Singleton Rd. & I-10 EB Ramps

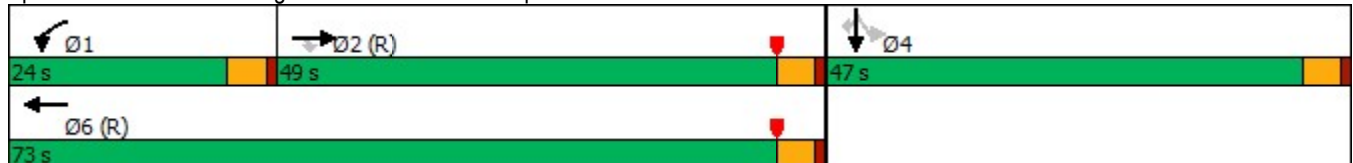
HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↙↘	↑↑	↓	↙↘
Traffic Volume (vph)	1105	652	447	1133	0	644
Future Volume (vph)	1105	652	447	1133	0	644
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	49.0	49.0	24.0	73.0	47.0	47.0
Total Split (%)	40.8%	40.8%	20.0%	60.8%	39.2%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	45.3	45.3	18.7	68.5	42.5	42.5
Actuated g/C Ratio	0.38	0.38	0.16	0.57	0.35	0.35
v/c Ratio	0.83	0.65	0.84	0.56	0.85	0.60
Control Delay	45.7	12.8	58.4	21.0	49.3	27.2
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	45.7	12.8	58.4	21.1	49.3	27.2
LOS	D	B	E	C	D	C
Approach Delay	33.5			31.7	37.5	
Approach LOS	C			C	D	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 33.9  
 Intersection Capacity Utilization 95.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service F

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

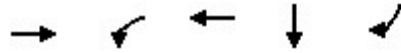


HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖↗	↑↑						↖	↖↗
Traffic Volume (veh/h)	0	1105	652	447	1133	0	0	0	0	558	0	644
Future Volume (veh/h)	0	1105	652	447	1133	0	0	0	0	558	0	644
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	1105	652	447	1133	0				558	0	644
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1381	616	500	2029	0				631	0	988
Arrive On Green	0.00	0.39	0.39	0.29	1.00	0.00				0.35	0.00	0.35
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1105	652	447	1133	0				558	0	644
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	33.1	46.6	14.9	0.0	0.0				35.4	0.0	23.3
Cycle Q Clear(g_c), s	0.0	33.1	46.6	14.9	0.0	0.0				35.4	0.0	23.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1381	616	500	2029	0				631	0	988
V/C Ratio(X)	0.00	0.80	1.06	0.89	0.56	0.00				0.88	0.00	0.65
Avail Cap(c_a), veh/h	0	1381	616	562	2029	0				631	0	988
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.56	0.56	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	32.5	36.7	41.8	0.0	0.0				36.4	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.5	30.3	9.7	0.6	0.0				16.6	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	14.1	22.8	6.1	0.2	0.0				18.0	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.0	67.0	51.4	0.6	0.0				53.0	0.0	35.9
LnGrp LOS	A	C	F	D	A	A				D	A	D
Approach Vol, veh/h		1757			1580						1202	
Approach Delay, s/veh		45.6			15.0						43.8	
Approach LOS		D			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.9	51.1		47.0		73.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	19.5	44.5		42.5		68.5						
Max Q Clear Time (g_c+I1), s	16.9	48.6		37.4		2.0						
Green Ext Time (p_c), s	0.5	0.0		2.9		11.7						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

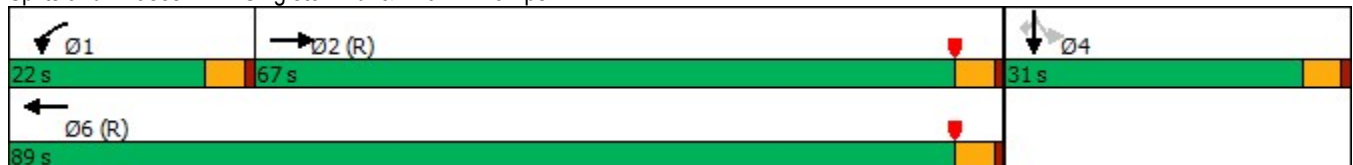


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↗	↖	↗	↖	↗
Traffic Volume (vph)	1105	447	1133	0	644
Future Volume (vph)	1105	447	1133	0	644
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	67.0	22.0	89.0	31.0	31.0
Total Split (%)	55.8%	18.3%	74.2%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	62.5	17.5	84.5	26.5	26.5
Actuated g/C Ratio	0.52	0.15	0.70	0.22	0.22
v/c Ratio	2.06	1.90	0.95	1.49	1.64
Control Delay	500.1	433.7	21.5	268.0	326.9
Queue Delay	1.0	0.0	44.8	0.0	0.0
Total Delay	501.1	433.7	66.3	268.0	326.9
LOS	F	F	E	F	F
Approach Delay	501.1		170.2	299.6	
Approach LOS	F		F	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.06  
 Intersection Signal Delay: 332.5  
 Intersection Capacity Utilization 285.6%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗						↖	↗
Traffic Volume (veh/h)	0	1105	652	447	1133	0	0	0	0	558	0	644
Future Volume (veh/h)	0	1105	652	447	1133	0	0	0	0	558	0	644
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	1214	716	491	1245	0				613	0	708
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	574	339	260	1317	0				393	0	350
Arrive On Green	0.00	0.52	0.52	0.29	1.00	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	1103	650	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1930	491	1245	0				613	0	708
Grp Sat Flow(s),veh/h/ln	0	0	1753	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	62.5	17.5	0.0	0.0				26.5	0.0	26.5
Cycle Q Clear(g_c), s	0.0	0.0	62.5	17.5	0.0	0.0				26.5	0.0	26.5
Prop In Lane	0.00		0.37	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	913	260	1317	0				393	0	350
V/C Ratio(X)	0.00	0.00	2.11	1.89	0.95	0.00				1.56	0.00	2.02
Avail Cap(c_a), veh/h	0	0	913	260	1317	0				393	0	350
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	28.8	42.5	0.0	0.0				46.8	0.0	46.8
Incr Delay (d2), s/veh	0.0	0.0	504.8	401.9	2.0	0.0				263.4	0.0	470.2
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	0.0	153.0	35.5	0.7	0.0				40.4	0.0	56.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	533.5	444.4	2.0	0.0				310.2	0.0	516.9
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1930			1736						1321	
Approach Delay, s/veh		533.5			127.1						421.0	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.0	67.0		31.0		89.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	17.5	62.5		26.5		84.5						
Max Q Clear Time (g_c+I1), s	19.5	64.5		28.5		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		21.7						

Intersection Summary

HCM 6th Ctrl Delay	362.2
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) Without Project PM Peak Hour

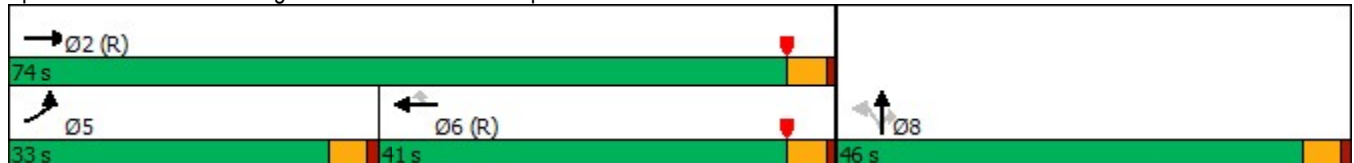
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	679	984	863	564	717	0	616
Future Volume (vph)	679	984	863	564	717	0	616
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	6			8	
Permitted Phases				6	8		8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	33.0	74.0	41.0	41.0	46.0	46.0	46.0
Total Split (%)	27.5%	61.7%	34.2%	34.2%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	27.0	72.3	40.8	40.8	38.7	38.7	38.7
Actuated g/C Ratio	0.22	0.60	0.34	0.34	0.32	0.32	0.32
v/c Ratio	0.88	0.46	0.72	0.62	0.85	0.84	0.75
Control Delay	63.1	14.1	22.1	4.1	53.0	47.8	35.1
Queue Delay	0.0	0.6	0.0	0.7	0.0	0.4	0.4
Total Delay	63.1	14.7	22.1	4.8	53.0	48.1	35.5
LOS	E	B	C	A	D	D	D
Approach Delay		34.4	15.3			45.8	
Approach LOS		C	B			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 31.7  
 Intersection Capacity Utilization 95.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service F
























Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps













HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	679	984	0	0	863	564	717	0	616	0	0	0
Future Volume (veh/h)	679	984	0	0	863	564	717	0	616	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	679	984	0	0	863	564	909	0	411			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	734	2235	0	0	1347	601	1055	0	469			
Arrive On Green	0.42	1.00	0.00	0.00	0.76	0.76	0.30	0.00	0.30			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	679	984	0	0	863	564	909	0	411			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	22.3	0.0	0.0	0.0	13.7	35.8	28.9	0.0	29.6			
Cycle Q Clear(g_c), s	22.3	0.0	0.0	0.0	13.7	35.8	28.9	0.0	29.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	734	2235	0	0	1347	601	1055	0	469			
V/C Ratio(X)	0.93	0.44	0.00	0.00	0.64	0.94	0.86	0.00	0.88			
Avail Cap(c_a), veh/h	821	2235	0	0	1347	601	1232	0	548			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.45	0.45	0.00	0.00	0.69	0.69	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.6	0.0	0.0	0.0	10.7	13.3	39.9	0.0	40.1			
Incr Delay (d2), s/veh	8.0	0.3	0.0	0.0	1.6	18.8	5.7	0.0	13.3			
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	8.3	0.1	0.0	0.0	3.6	7.7	13.4	0.0	13.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.3	0.0	0.0	12.3	32.2	45.6	0.0	53.4			
LnGrp LOS	D	A	A	A	B	C	D	A	D			
Approach Vol, veh/h		1663			1427			1320				
Approach Delay, s/veh		17.2			20.1			48.1				
Approach LOS		B			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		80.0			30.0	50.0		40.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		69.5			28.5	36.5		41.5				
Max Q Clear Time (g_c+I1), s		2.0			24.3	37.8		31.6				
Green Ext Time (p_c), s		9.4			1.1	0.0		4.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.4								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

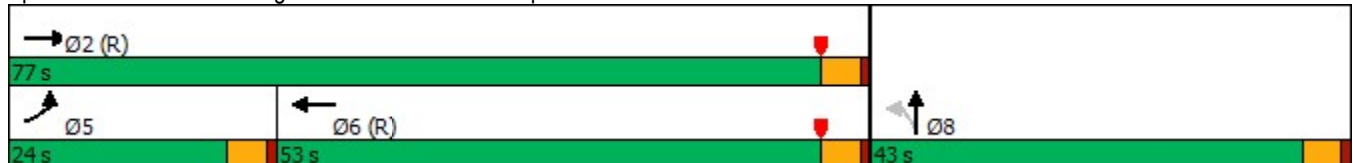
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	679	984	863	0
Future Volume (vph)	679	984	863	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	24.0	77.0	53.0	43.0
Total Split (%)	20.0%	64.2%	44.2%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	19.5	72.5	48.5	38.5
Actuated g/C Ratio	0.16	0.60	0.40	0.32
v/c Ratio	2.57	0.95	2.12	2.49
Control Delay	730.9	25.5	530.6	694.0
Queue Delay	0.0	44.2	0.1	2.2
Total Delay	730.9	69.8	530.7	696.1
LOS	F	E	F	F
Approach Delay		339.6	530.7	696.1
Approach LOS		F	F	F

Intersection Summary

















Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.57	
Intersection Signal Delay: 508.7	Intersection LOS: F
Intersection Capacity Utilization 285.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	679	984	0	0	863	564	717	0	616	0	0	0
Future Volume (veh/h)	679	984	0	0	863	564	717	0	616	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	738	1070	0	0	938	613	779	0	670			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	289	1130	0	0	427	279	291	0	250			
Arrive On Green	0.32	1.00	0.00	0.00	0.40	0.40	0.32	0.00	0.32			
Sat Flow, veh/h	1781	1870	0	0	1056	690	906	0	779			
Grp Volume(v), veh/h	738	1070	0	0	0	1551	1449	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1746	1685	0	0			
Q Serve(g_s), s	19.5	0.0	0.0	0.0	0.0	48.5	38.5	0.0	0.0			
Cycle Q Clear(g_c), s	19.5	0.0	0.0	0.0	0.0	48.5	38.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.40	0.54		0.46			
Lane Grp Cap(c), veh/h	289	1130	0	0	0	706	541	0	0			
V/C Ratio(X)	2.55	0.95	0.00	0.00	0.00	2.20	2.68	0.00	0.00			
Avail Cap(c_a), veh/h	289	1130	0	0	0	706	541	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	40.5	0.0	0.0	0.0	0.0	35.8	40.8	0.0	0.0			
Incr Delay (d2), s/veh	698.2	2.3	0.0	0.0	0.0	543.6	761.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	63.3	0.7	0.0	0.0	0.0	126.7	130.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	738.7	2.3	0.0	0.0	0.0	579.4	802.3	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1808			1551			1449				
Approach Delay, s/veh		302.9			579.4			802.3				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			24.0	53.0		43.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		72.5			19.5	48.5		38.5				
Max Q Clear Time (g_c+I1), s		2.0			21.5	50.5		40.5				
Green Ext Time (p_c), s		13.9			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					542.6							
HCM 6th LOS					F							

Timings  
3: Calimesa Bl. & Singleton Rd.

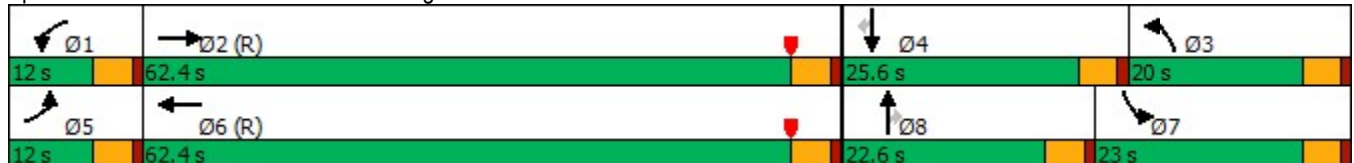
HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	174	1301	79	1121	148	62	42	225	129	268
Future Volume (vph)	174	1301	79	1121	148	62	42	225	129	268
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	12.0	62.4	12.0	62.4	20.0	22.6	22.6	23.0	25.6	25.6
Total Split (%)	10.0%	52.0%	10.0%	52.0%	16.7%	18.8%	18.8%	19.2%	21.3%	21.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	9.6	63.0	8.7	62.1	16.1	11.6	11.6	21.6	14.3	14.3
Actuated g/C Ratio	0.08	0.52	0.07	0.52	0.13	0.10	0.10	0.18	0.12	0.12
v/c Ratio	0.64	0.82	0.59	0.65	0.63	0.18	0.18	0.71	0.31	0.77
Control Delay	65.0	31.3	80.0	10.2	85.6	59.4	15.5	59.6	49.0	31.8
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	31.5	80.0	10.2	85.6	59.4	15.5	59.6	49.0	31.8
LOS	E	C	F	B	F	E	B	E	D	C
Approach Delay		35.0		14.4		67.4			45.5	
Approach LOS		D		B		E			D	

Intersection Summary
































Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 31.8  
 Intersection Capacity Utilization 82.4%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



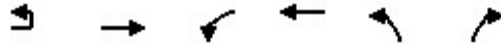
HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	174	1301	195	79	1121	112	148	62	42	225	129	268
Future Volume (veh/h)	174	1301	195	79	1121	112	148	62	42	225	129	268
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	174	1301	195	79	1121	112	148	62	42	225	129	268
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	1714	255	99	1826	182	176	296	132	282	509	227
Arrive On Green	0.13	1.00	1.00	0.11	1.00	1.00	0.10	0.08	0.08	0.16	0.14	0.14
Sat Flow, veh/h	3456	3103	462	1781	3347	334	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	174	741	755	79	626	607	148	62	42	225	129	268
Grp Sat Flow(s),veh/h/ln	1728	1777	1787	1781	1870	1810	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.9	0.0	0.0	5.2	0.0	0.0	9.8	2.0	2.6	14.6	3.9	14.4
Cycle Q Clear(g_c), s	5.9	0.0	0.0	5.2	0.0	0.0	9.8	2.0	2.6	14.6	3.9	14.4
Prop In Lane	1.00		0.26	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	982	987	99	1021	988	176	296	132	282	509	227
V/C Ratio(X)	0.81	0.75	0.76	0.80	0.61	0.61	0.84	0.21	0.32	0.80	0.25	1.18
Avail Cap(c_a), veh/h	216	982	987	111	1021	988	230	536	239	282	625	279
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	0.0	52.7	0.0	0.0	53.2	51.3	38.1	48.6	45.7	36.2
Incr Delay (d2), s/veh	16.6	4.4	4.7	29.4	2.8	2.9	19.0	0.3	1.4	14.7	0.3	115.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.2	1.3	3.0	0.8	0.8	5.3	0.9	1.2	7.6	1.7	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.3	4.4	4.7	82.0	2.8	2.9	72.2	51.7	39.4	63.3	46.0	151.6
LnGrp LOS	E	A	A	F	A	A	E	D	D	E	D	F
Approach Vol, veh/h		1670			1312			252			622	
Approach Delay, s/veh		11.2			7.6			61.7			97.8	
Approach LOS		B			A			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	70.8	16.3	21.7	12.0	70.0	23.5	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	57.9	15.5	21.1	7.5	57.9	18.5	18.1				
Max Q Clear Time (g_c+I1), s	7.2	2.0	11.8	16.4	7.9	2.0	16.6	4.6				
Green Ext Time (p_c), s	0.0	17.2	0.1	0.8	0.0	11.9	0.1	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.2								
HCM 6th LOS				C								

Timings  
4: Beckwith Av. & Singleton Rd.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

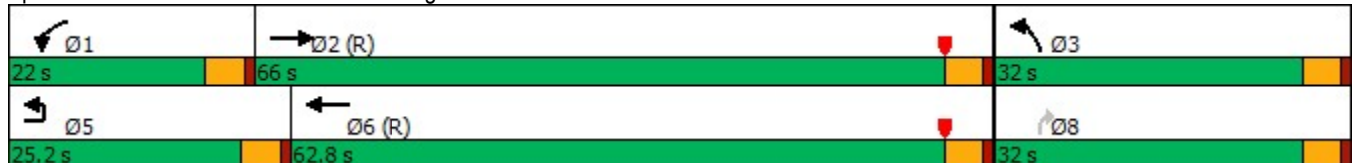


Lane Group	EBU	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↔	↔↕	↕↕	↕↔	↕↔
Traffic Volume (vph)	173	957	166	881	290	130
Future Volume (vph)	173	957	166	881	290	130
Turn Type	Prot	NA	Prot	NA	Prot	Perm
Protected Phases	5	2	1	6	3	
Permitted Phases						8
Detector Phase	5	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	25.2	66.0	22.0	62.8	32.0	32.0
Total Split (%)	21.0%	55.0%	18.3%	52.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	16.4	63.8	15.2	62.6	27.5	27.5
Actuated g/C Ratio	0.14	0.53	0.13	0.52	0.23	0.23
v/c Ratio	0.71	0.79	0.74	0.48	0.72	0.28
Control Delay	63.6	15.9	68.6	24.9	53.8	8.0
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	63.6	16.1	68.6	24.9	53.8	8.0
LOS	E	B	E	C	D	A
Approach Delay		21.2		31.8	39.6	
Approach LOS		C		C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 27.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 78.5%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↷		↰	↷	↰	↷
Traffic Volume (veh/h)	173	957	486	166	881	290	130
Future Volume (veh/h)	173	957	486	166	881	290	130
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		957	486	166	881	290	130
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1262	628	194	2473	408	363
Arrive On Green		1.00	1.00	0.11	0.70	0.23	0.23
Sat Flow, veh/h		2391	1144	1781	3647	1781	1585
Grp Volume(v), veh/h		736	707	166	881	290	130
Grp Sat Flow(s),veh/h/ln		1777	1665	1781	1777	1781	1585
Q Serve(g_s), s		0.0	0.0	11.0	12.0	18.0	8.3
Cycle Q Clear(g_c), s		0.0	0.0	11.0	12.0	18.0	8.3
Prop In Lane			0.69	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		976	914	194	2473	408	363
V/C Ratio(X)		0.75	0.77	0.85	0.36	0.71	0.36
Avail Cap(c_a), veh/h		976	914	260	2473	408	363
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	52.5	7.4	42.6	38.8
Incr Delay (d2), s/veh		5.4	6.3	18.3	0.4	10.0	2.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.5	1.6	5.9	4.4	9.0	3.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		5.4	6.3	70.8	7.8	52.6	41.6
LnGrp LOS		A	A	E	A	D	D
Approach Vol, veh/h		1443			1047	420	
Approach Delay, s/veh		5.9			17.8	49.2	
Approach LOS		A			B	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	17.6	70.4			88.0	32.0	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	17.5	61.5			58.3	27.5	
Max Q Clear Time (g_c+I1), s	13.0	2.0			14.0	20.0	
Green Ext Time (p_c), s	0.2	16.8			7.7	0.8	

Intersection Summary

HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

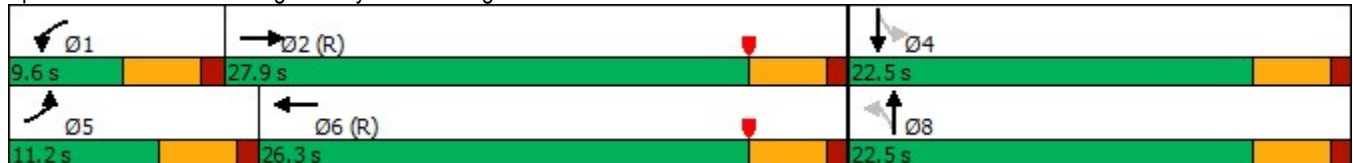


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↙	↕
Traffic Volume (vph)	110	921	34	960	28	5	20	15
Future Volume (vph)	110	921	34	960	28	5	20	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.2	27.9	9.6	26.3	22.5	22.5	22.5	22.5
Total Split (%)	18.7%	46.5%	16.0%	43.8%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	6.5	29.2	5.1	24.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.11	0.49	0.08	0.40	0.30	0.30	0.30	0.30
v/c Ratio	0.57	0.57	0.23	0.69	0.07	0.07	0.05	0.14
Control Delay	36.7	14.0	29.6	18.9	15.7	7.7	15.4	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	14.0	29.6	18.9	15.7	7.7	15.4	7.2
LOS	D	B	C	B	B	A	B	A
Approach Delay		16.3		19.3		11.3		9.0
Approach LOS		B		B		B		A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 36.2 (60%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 17.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 52.8%  
 ICU Level of Service A  
 Analysis Period (min) 15






















Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	921	56	34	960	17	28	5	30	20	15	59
Future Volume (veh/h)	110	921	56	34	960	17	28	5	30	20	15	59
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	110	921	56	34	960	17	28	5	30	20	15	59
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1494	91	64	1414	25	474	69	417	511	99	391
Arrive On Green	0.08	0.44	0.44	0.04	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3403	207	1781	3573	63	1326	231	1389	1373	332	1304
Grp Volume(v), veh/h	110	481	496	34	477	500	28	0	35	20	0	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1833	1781	1777	1859	1326	0	1620	1373	0	1636
Q Serve(g_s), s	3.6	12.5	12.5	1.1	13.3	13.3	0.9	0.0	0.9	0.6	0.0	2.0
Cycle Q Clear(g_c), s	3.6	12.5	12.5	1.1	13.3	13.3	2.9	0.0	0.9	1.6	0.0	2.0
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.86	1.00		0.80
Lane Grp Cap(c), veh/h	141	780	805	64	703	736	474	0	486	511	0	491
V/C Ratio(X)	0.78	0.62	0.62	0.53	0.68	0.68	0.06	0.00	0.07	0.04	0.00	0.15
Avail Cap(c_a), veh/h	199	780	805	151	703	736	474	0	486	511	0	491
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(l)	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	27.1	12.9	12.9	28.4	15.0	15.0	16.5	0.0	15.0	15.6	0.0	15.4
Incr Delay (d2), s/veh	12.0	3.6	3.5	6.6	5.2	5.0	0.2	0.0	0.3	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.0	5.2	0.6	5.7	5.9	0.3	0.0	0.4	0.2	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	16.6	16.5	35.0	20.2	20.0	16.7	0.0	15.3	15.7	0.0	16.0
LnGrp LOS	D	B	B	D	C	B	B	A	B	B	A	B
Approach Vol, veh/h		1087			1011			63				94
Approach Delay, s/veh		18.8			20.6			15.9				16.0
Approach LOS		B			C			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	30.8		22.5	9.3	28.2		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.4		18.0	6.7	21.8		18.0				
Max Q Clear Time (g_c+I1), s	3.1	14.5		4.0	5.6	15.3		4.9				
Green Ext Time (p_c), s	0.0	4.1		0.3	0.0	3.3		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				19.4								
HCM 6th LOS				B								

Timings  
6: Calimesa Bl. & 5th St.

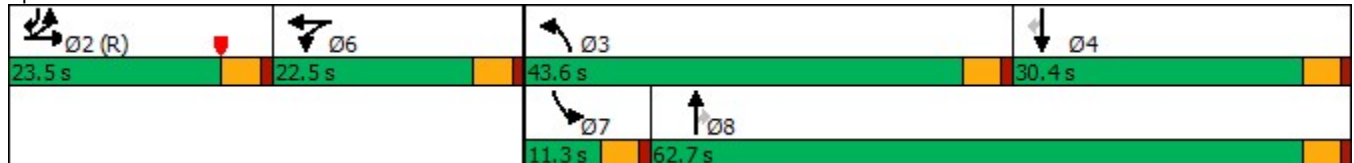
HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	214	271	100	456	1140	413	237	37	391	538
Future Volume (vph)	214	271	100	456	1140	413	237	37	391	538
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	23.5	23.5	22.5	22.5	43.6	62.7	62.7	11.3	30.4	23.5
Total Split (%)	19.6%	19.6%	18.8%	18.8%	36.3%	52.3%	52.3%	9.4%	25.3%	19.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	19.0	19.0	18.0	18.0	39.1	62.7	62.7	6.5	25.9	49.4
Actuated g/C Ratio	0.16	0.16	0.15	0.15	0.33	0.52	0.52	0.05	0.22	0.41
v/c Ratio	0.76	0.79	0.38	0.92	0.99	0.42	0.27	0.39	0.97	0.76
Control Delay	68.2	53.7	50.7	74.1	43.1	19.0	10.4	66.4	85.7	32.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	53.7	50.7	74.1	43.1	19.0	10.4	66.4	85.7	32.9
LOS	E	D	D	E	D	B	B	E	F	C
Approach Delay		58.1		70.1		33.2			55.5	
Approach LOS		E		E		C			E	

Intersection Summary


























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 48.0  
 Intersection Capacity Utilization 94.0%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 					
Traffic Volume (veh/h)	214	271	145	100	456	32	1140	413	237	37	391	538
Future Volume (veh/h)	214	271	145	100	456	32	1140	413	237	37	391	538
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	187	309	75	100	456	17	1140	413	122	37	391	273
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	473	113	261	511	19	1161	958	812	53	404	599
Arrive On Green	0.21	0.21	0.21	0.19	0.19	0.19	0.46	0.72	0.72	0.04	0.32	0.32
Sat Flow, veh/h	1781	2918	697	1781	3494	130	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	187	196	188	100	232	241	1140	413	122	37	391	273
Grp Sat Flow(s),veh/h/ln	1781	1870	1745	1781	1777	1847	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.5	11.5	11.8	5.9	15.2	15.3	37.8	10.9	2.9	2.5	24.7	15.0
Cycle Q Clear(g_c), s	11.5	11.5	11.8	5.9	15.2	15.3	37.8	10.9	2.9	2.5	24.7	15.0
Prop In Lane	1.00		0.40	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	289	303	283	261	260	270	1161	958	812	53	404	599
V/C Ratio(X)	0.65	0.65	0.66	0.38	0.89	0.89	0.98	0.43	0.15	0.70	0.97	0.46
Avail Cap(c_a), veh/h	289	303	283	267	267	277	1161	958	812	101	404	599
HCM Platoon Ratio	1.30	1.30	1.30	1.30	1.30	1.30	1.40	1.40	1.40	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	44.2	44.4	43.9	47.7	47.7	32.3	9.8	8.7	56.8	40.2	24.0
Incr Delay (d2), s/veh	10.7	10.2	11.7	0.9	28.5	28.2	22.1	1.4	0.4	15.7	37.6	2.5
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	5.8	6.0	5.8	2.6	8.5	8.9	17.8	4.0	1.1	1.3	14.4	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	54.5	56.0	44.8	76.1	75.9	54.4	11.2	9.1	72.5	77.8	26.5
LnGrp LOS	D	D	E	D	E	E	D	B	A	E	E	C
Approach Vol, veh/h		571			573			1675			701	
Approach Delay, s/veh		55.1			70.6			40.4			57.5	
Approach LOS		E			E			D			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	43.6	30.4		22.0	8.0	66.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	39.1	25.9		18.0	6.8	58.2				
Max Q Clear Time (g_c+I1), s		13.8	39.8	26.7		17.3	4.5	12.9				
Green Ext Time (p_c), s		1.3	0.0	0.0		0.2	0.0	3.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			51.1									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
7: Roberts Rd. & Cherry Valley Bl.

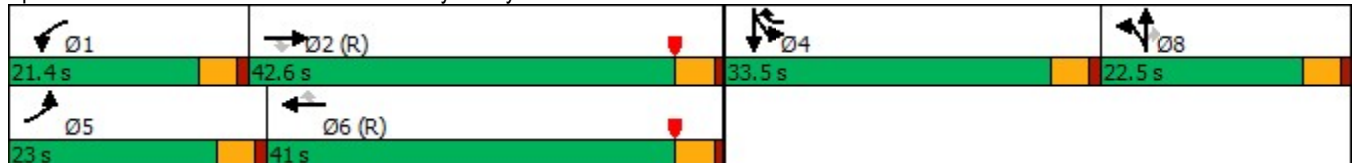
HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	343	698	29	301	788	499	29	10	163	385	13
Future Volume (vph)	343	698	29	301	788	499	29	10	163	385	13
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Split	NA	Perm	Split	NA
Protected Phases	5	2		1	6	4	8	8		4	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	4	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	42.6	42.6	21.4	41.0	33.5	22.5	22.5	22.5	33.5	33.5
Total Split (%)	19.2%	35.5%	35.5%	17.8%	34.2%	27.9%	18.8%	18.8%	18.8%	27.9%	27.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	16.5	40.0	40.0	15.0	38.5	72.0	18.0	18.0	18.0	29.0	29.0
Actuated g/C Ratio	0.14	0.33	0.33	0.12	0.32	0.60	0.15	0.15	0.15	0.24	0.24
v/c Ratio	0.73	0.59	0.05	0.70	0.69	0.47	0.11	0.04	0.43	0.46	0.60
Control Delay	59.0	36.1	0.2	53.7	38.9	9.1	45.4	44.1	10.7	41.0	8.3
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	59.0	36.1	0.2	53.7	38.9	9.1	45.4	44.1	10.7	41.0	8.3
LOS	E	D	A	D	D	A	D	D	B	D	A
Approach Delay		42.5			32.3			17.4			24.2
Approach LOS		D			C			B			C

Intersection Summary

























Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

HY (2045) Without Project PM Peak Hour  
Urban Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	698	29	301	788	499	29	10	163	385	13	396
Future Volume (veh/h)	343	698	29	301	788	499	29	10	163	385	13	396
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	343	698	29	301	788	499	29	10	163	385	13	396
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	409	1257	561	361	1208	922	267	281	238	835	12	373
Arrive On Green	0.12	0.35	0.35	0.17	0.57	0.57	0.15	0.15	0.15	0.24	0.24	0.24
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	51	1542
Grp Volume(v), veh/h	343	698	29	301	788	499	29	10	163	385	0	409
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1593
Q Serve(g_s), s	11.7	19.0	1.4	10.1	18.3	21.8	1.7	0.5	11.7	11.4	0.0	29.0
Cycle Q Clear(g_c), s	11.7	19.0	1.4	10.1	18.3	21.8	1.7	0.5	11.7	11.4	0.0	29.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	409	1257	561	361	1208	922	267	281	238	835	0	385
V/C Ratio(X)	0.84	0.56	0.05	0.83	0.65	0.54	0.11	0.04	0.69	0.46	0.00	1.06
Avail Cap(c_a), veh/h	533	1257	561	487	1208	922	267	281	238	835	0	385
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	31.2	25.5	48.5	21.1	9.9	44.1	43.6	48.3	38.8	0.0	45.5
Incr Delay (d2), s/veh	9.0	1.8	0.2	7.4	2.3	1.9	0.8	0.2	14.9	1.8	0.0	63.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	8.3	0.6	4.4	6.2	10.2	0.8	0.3	5.6	5.1	0.0	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	33.0	25.7	56.0	23.3	11.7	44.9	43.8	63.3	40.7	0.0	108.9
LnGrp LOS	E	C	C	E	C	B	D	D	E	D	A	F
Approach Vol, veh/h		1070			1588			202				794
Approach Delay, s/veh		41.7			25.9			59.7				75.8
Approach LOS		D			C			E				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.0	47.0		33.5	18.7	45.3		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.9	38.1		29.0	18.5	36.5		18.0				
Max Q Clear Time (g_c+I1), s	12.1	21.0		31.0	13.7	23.8		13.7				
Green Ext Time (p_c), s	0.5	4.4		0.0	0.5	5.9		0.2				

Intersection Summary

HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

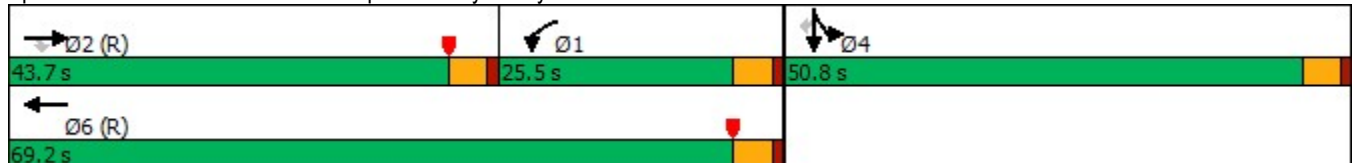


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↑	↔
Traffic Volume (vph)	1011	236	497	685	0	903
Future Volume (vph)	1011	236	497	685	0	903
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	43.7	43.7	25.5	69.2	50.8	50.8
Total Split (%)	36.4%	36.4%	21.3%	57.7%	42.3%	42.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	39.2	39.2	21.0	64.7	46.3	46.3
Actuated g/C Ratio	0.33	0.33	0.18	0.54	0.39	0.39
v/c Ratio	0.87	0.39	0.83	0.36	0.86	0.70
Control Delay	39.5	13.3	42.0	6.0	48.2	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	13.3	42.0	6.0	48.2	20.9
LOS	D	B	D	A	D	C
Approach Delay	34.5			21.1	31.7	
Approach LOS	C			C	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), 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: 29.4  
 Intersection Capacity Utilization 85.9%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.













HY (2045) Without Project PM Peak Hour  
 Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↗↘	↑↑						↖	↖↗
Traffic Volume (veh/h)	0	1011	236	497	685	0	0	0	0	587	0	903
Future Volume (veh/h)	0	1011	236	497	685	0	0	0	0	587	0	903
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	1011	236	497	685	0				587	0	903
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1161	518	605	1916	0				687	0	1076
Arrive On Green	0.00	0.65	0.65	0.23	0.72	0.00				0.64	0.00	0.64
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1011	236	497	685	0				587	0	903
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	27.5	8.8	16.4	8.8	0.0				31.5	0.0	30.3
Cycle Q Clear(g_c), s	0.0	27.5	8.8	16.4	8.8	0.0				31.5	0.0	30.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1161	518	605	1916	0				687	0	1076
V/C Ratio(X)	0.00	0.87	0.46	0.82	0.36	0.00				0.85	0.00	0.84
Avail Cap(c_a), veh/h	0	1161	518	605	1916	0				687	0	1076
HCM Platoon Ratio	1.00	2.00	2.00	1.33	1.33	1.00				1.65	1.65	1.65
Upstream Filter(l)	0.00	0.83	0.83	0.68	0.68	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.8	15.5	44.3	9.1	0.0				19.1	0.0	18.9
Incr Delay (d2), s/veh	0.0	7.7	2.4	6.2	0.4	0.0				12.8	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	2.9	7.1	3.0	0.0				11.9	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.4	17.9	50.5	9.4	0.0				31.9	0.0	26.8
LnGrp LOS	A	C	B	D	A	A				C	A	C
Approach Vol, veh/h		1247			1182						1490	
Approach Delay, s/veh		24.8			26.7						28.8	
Approach LOS		C			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.5	43.7		50.8		69.2						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	21.0	39.2		46.3		64.7						
Max Q Clear Time (g_c+I1), s	18.4	29.5		33.5		10.8						
Green Ext Time (p_c), s	0.5	5.2		6.7		5.3						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				26.9								
HCM 6th LOS				C								



Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

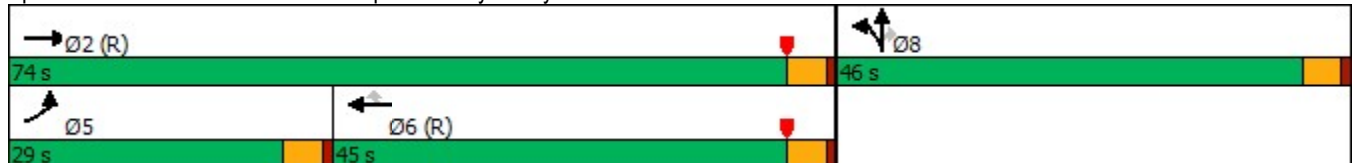
HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

						
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	559	1039	923	610	10	579
Future Volume (vph)	559	1039	923	610	10	579
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	29.0	74.0	45.0	45.0	46.0	46.0
Total Split (%)	24.2%	61.7%	37.5%	37.5%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Max	C-Max	None	None
Act Effct Green (s)	23.1	73.7	46.1	46.1	37.3	37.3
Actuated g/C Ratio	0.19	0.61	0.38	0.38	0.31	0.31
v/c Ratio	0.85	0.48	0.68	0.56	0.49	0.89
Control Delay	60.1	7.8	24.3	3.2	36.0	49.1
Queue Delay	0.0	0.1	0.0	0.1	0.0	0.0
Total Delay	60.1	7.9	24.3	3.3	36.0	49.1
LOS	E	A	C	A	D	D
Approach Delay		26.2	15.9		45.0	
Approach LOS		C	B		D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 26.2  
 Intersection Capacity Utilization 85.9%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E






















Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

HY (2045) Without Project PM Peak Hour  
 Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 							
Traffic Volume (veh/h)	559	1039	0	0	923	610	259	10	579	0	0	0
Future Volume (veh/h)	559	1039	0	0	923	610	259	10	579	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	559	1039	0	0	923	610	259	10	579			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	615	2058	0	0	1293	577	594	23	548			
Arrive On Green	0.36	1.00	0.00	0.00	0.36	0.36	0.35	0.35	0.35			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1718	66	1585			
Grp Volume(v), veh/h	559	1039	0	0	923	610	269	0	579			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1784	0	1585			
Q Serve(g_s), s	18.5	0.0	0.0	0.0	26.8	43.6	13.9	0.0	41.5			
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	26.8	43.6	13.9	0.0	41.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	615	2058	0	0	1293	577	617	0	548			
V/C Ratio(X)	0.91	0.50	0.00	0.00	0.71	1.06	0.44	0.00	1.06			
Avail Cap(c_a), veh/h	706	2058	0	0	1293	577	617	0	548			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.36	0.36	0.00	0.00	0.59	0.59	1.00	0.00	1.00			
Uniform Delay (d), s/veh	37.7	0.0	0.0	0.0	32.8	38.2	30.2	0.0	39.2			
Incr Delay (d2), s/veh	6.2	0.3	0.0	0.0	2.0	45.4	0.5	0.0	54.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.8	0.1	0.0	0.0	11.6	23.7	6.1	0.0	24.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	0.3	0.0	0.0	34.8	83.6	30.7	0.0	93.4			
LnGrp LOS	D	A	A	A	C	F	C	A	F			
Approach Vol, veh/h		1598			1533			848				
Approach Delay, s/veh		15.6			54.2			73.5				
Approach LOS		B			D			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		74.0			25.9	48.1		46.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		69.5			24.5	40.5		41.5				
Max Q Clear Time (g_c+I1), s		2.0			20.5	45.6		43.5				
Green Ext Time (p_c), s		9.6			0.9	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				42.8								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

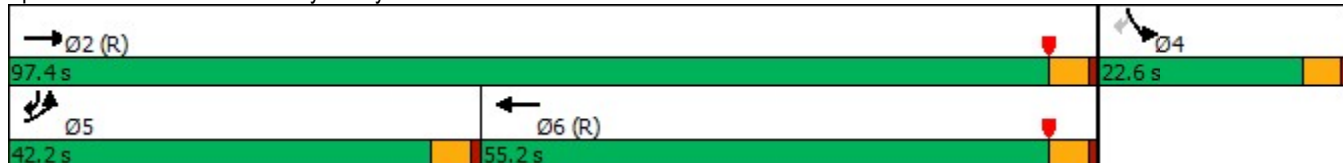


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑↑	↑↑↔	↖	↗
Traffic Volume (vph)	458	1160	1183	144	350
Future Volume (vph)	458	1160	1183	144	350
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	42.2	97.4	55.2	22.6	42.2
Total Split (%)	35.2%	81.2%	46.0%	18.8%	35.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	34.6	92.9	53.8	18.1	57.2
Actuated g/C Ratio	0.29	0.77	0.45	0.15	0.48
v/c Ratio	0.90	0.42	0.82	0.54	0.46
Control Delay	62.9	6.4	34.7	40.8	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	62.9	6.4	34.7	40.8	21.4
LOS	E	A	C	D	C
Approach Delay		22.4	34.7	27.1	
Approach LOS		C	C	C	

Intersection Summary

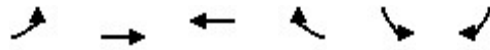
Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 27.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 80.7%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) Without Project PM Peak Hour  
 Urbarn Crossroads, Inc.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	458	1160	1183	106	144	350
Future Volume (veh/h)	458	1160	1183	106	144	350
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	458	1160	1183	106	144	350
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	479	2751	1544	138	269	665
Arrive On Green	0.54	1.00	0.47	0.47	0.15	0.15
Sat Flow, veh/h	1781	3647	3392	295	1781	1585
Grp Volume(v), veh/h	458	1160	636	653	144	350
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1817	1781	1585
Q Serve(g_s), s	29.4	0.0	35.6	35.8	9.0	18.1
Cycle Q Clear(g_c), s	29.4	0.0	35.6	35.8	9.0	18.1
Prop In Lane	1.00			0.16	1.00	1.00
Lane Grp Cap(c), veh/h	479	2751	832	850	269	665
V/C Ratio(X)	0.96	0.42	0.77	0.77	0.54	0.53
Avail Cap(c_a), veh/h	560	2751	832	850	269	665
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.74	0.74	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	26.5	26.5	47.1	26.0
Incr Delay (d2), s/veh	21.2	0.4	6.6	6.6	7.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	0.1	16.0	16.5	4.5	19.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.3	0.4	33.1	33.1	54.5	28.9
LnGrp LOS	D	A	C	C	D	C
Approach Vol, veh/h		1618	1289		494	
Approach Delay, s/veh		13.9	33.1		36.4	
Approach LOS		B	C		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	36.7	60.7
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	37.7	50.7
Max Q Clear Time (g_c+I1), s		2.0		20.1	31.4	37.8
Green Ext Time (p_c), s		11.6		0.0	0.8	6.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			24.4			
HCM 6th LOS			C			

Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) Without Project PM Peak Hour  
 Urbarn Crossroads, Inc.

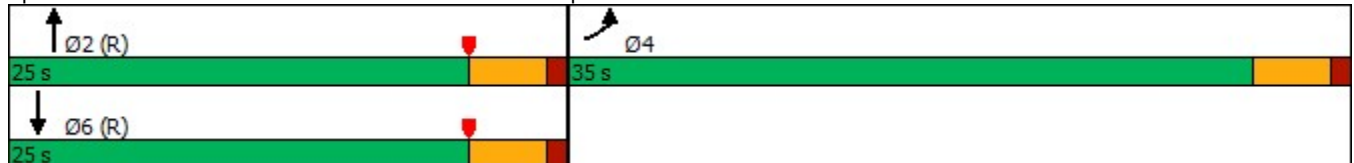


Lane Group	EBL	NBT	SBT
Lane Configurations	↘	↑↑	↑
Traffic Volume (vph)	1019	1289	592
Future Volume (vph)	1019	1289	592
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	35.0	25.0	25.0
Total Split (%)	58.3%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	30.5	20.5	20.5
Actuated g/C Ratio	0.51	0.34	0.34
v/c Ratio	1.13	1.01	0.93
Control Delay	92.7	50.9	42.4
Queue Delay	0.0	0.0	0.0
Total Delay	92.7	50.9	42.4
LOS	F	D	D
Approach Delay	92.7	50.9	42.4
Approach LOS	F	D	D

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.13  
 Intersection Signal Delay: 63.9  
 Intersection Capacity Utilization 99.7%  
 Analysis Period (min) 15  
 Intersection LOS: E  
 ICU Level of Service F

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) Without Project PM Peak Hour  
 Urbarn Crossroads, Inc.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1019	2	0	1289	592	0
Future Volume (veh/h)	1019	2	0	1289	592	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	1019	2	0	1289	592	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	903	2	0	1278	639	0
Arrive On Green	0.76	0.76	0.00	0.51	0.51	0.00
Sat Flow, veh/h	1776	3	0	3741	1870	0
Grp Volume(v), veh/h	1022	0	0	1289	592	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1870	1870	0
Q Serve(g_s), s	30.5	0.0	0.0	20.5	17.6	0.0
Cycle Q Clear(g_c), s	30.5	0.0	0.0	20.5	17.6	0.0
Prop In Lane	1.00	0.00	0.00			0.00
Lane Grp Cap(c), veh/h	905	0	0	1278	639	0
V/C Ratio(X)	1.13	0.00	0.00	1.01	0.93	0.00
Avail Cap(c_a), veh/h	905	0	0	1278	639	0
HCM Platoon Ratio	1.50	1.50	1.00	1.50	1.50	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.1	0.0	0.0	14.6	13.9	0.0
Incr Delay (d2), s/veh	72.0	0.0	0.0	27.3	21.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.2	0.0	0.0	9.8	8.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	79.1	0.0	0.0	41.9	35.4	0.0
LnGrp LOS	F	A	A	F	D	A
Approach Vol, veh/h	1022			1289	592	
Approach Delay, s/veh	79.1			41.9	35.4	
Approach LOS	E			D	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		25.0		35.0		25.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		20.5		30.5		20.5
Max Q Clear Time (g_c+I1), s		22.5		32.5		19.6
Green Ext Time (p_c), s		0.0		0.0		0.3

Intersection Summary

HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

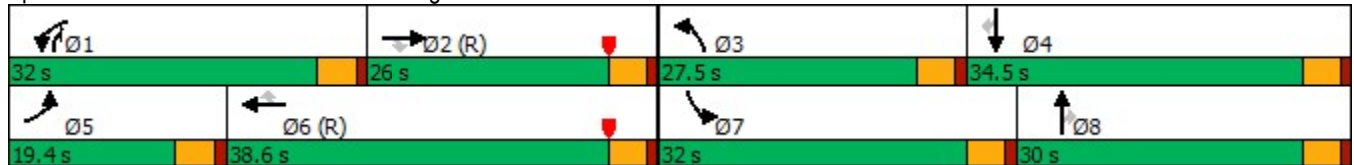
HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	773	161	598	955	582	200	299	721	479	195	121
Future Volume (vph)	205	773	161	598	955	582	200	299	721	479	195	121
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	19.4	26.0	26.0	32.0	38.6	38.6	27.5	30.0	32.0	32.0	34.5	34.5
Total Split (%)	16.2%	21.7%	21.7%	26.7%	32.2%	32.2%	22.9%	25.0%	26.7%	26.7%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	20.3	22.7	22.7	36.9	39.3	39.3	18.3	14.9	56.3	27.5	24.1	24.1
Actuated g/C Ratio	0.17	0.19	0.19	0.31	0.33	0.33	0.15	0.12	0.47	0.23	0.20	0.20
v/c Ratio	0.69	1.10	0.38	0.55	0.78	0.77	0.74	0.65	0.93	1.18	0.26	0.28
Control Delay	58.9	109.5	9.1	36.6	43.4	23.7	65.1	56.5	48.1	145.8	41.9	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	109.5	9.1	36.6	43.4	23.7	65.1	56.5	48.1	145.8	41.9	7.0
LOS	E	F	A	D	D	C	E	E	D	F	D	A
Approach Delay		86.2			36.1			52.9			99.2	
Approach LOS		F			D			D			F	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.18  
 Intersection Signal Delay: 60.3  
 Intersection LOS: E  
 Intersection Capacity Utilization 103.8%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

HY (2045) Without Project PM Peak Hour  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	773	161	598	955	582	200	299	721	479	195	121
Future Volume (veh/h)	205	773	161	598	955	582	200	299	721	479	195	121
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	205	773	81	598	955	292	200	299	361	479	195	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	853	361	671	1093	463	229	765	623	408	1142	484
Arrive On Green	0.19	0.34	0.34	0.28	0.44	0.44	0.19	0.31	0.31	0.34	0.46	0.46
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	205	773	81	598	955	292	200	299	361	479	195	61
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	13.6	23.6	4.4	19.3	27.9	17.2	13.1	7.6	22.0	27.5	3.7	2.7
Cycle Q Clear(g_c), s	13.6	23.6	4.4	19.3	27.9	17.2	13.1	7.6	22.0	27.5	3.7	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	853	361	671	1093	463	229	765	623	408	1142	484
V/C Ratio(X)	0.93	0.91	0.22	0.89	0.87	0.63	0.88	0.39	0.58	1.17	0.17	0.13
Avail Cap(c_a), veh/h	221	853	361	816	1093	463	341	795	635	408	1142	484
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	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	38.3	31.9	41.9	31.7	28.7	47.5	35.7	25.1	39.4	23.6	23.3
Incr Delay (d2), s/veh	40.8	15.0	1.4	8.6	7.9	5.1	15.2	0.3	1.3	101.1	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	8.2	11.6	1.8	8.6	12.3	6.4	6.4	3.3	7.5	22.4	1.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.1	53.3	33.3	50.4	39.6	33.7	62.8	36.0	26.4	140.4	23.7	23.4
LnGrp LOS	F	D	C	D	D	C	E	D	C	F	C	C
Approach Vol, veh/h		1059			1845			860			735	
Approach Delay, s/veh		58.7			42.2			38.2			99.8	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.1	31.9	19.9	41.1	19.4	39.6	32.0	29.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	27.5	21.5	23.0	30.0	14.9	34.1	27.5	25.5				
Max Q Clear Time (g_c+I1), s	21.3	25.6	15.1	5.7	15.6	29.9	29.5	24.0				
Green Ext Time (p_c), s	1.3	0.0	0.3	1.4	0.0	2.7	0.0	0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			54.7									
HCM 6th LOS			D									

Timings  
1: Singleton Rd. & I-10 EB Ramps

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

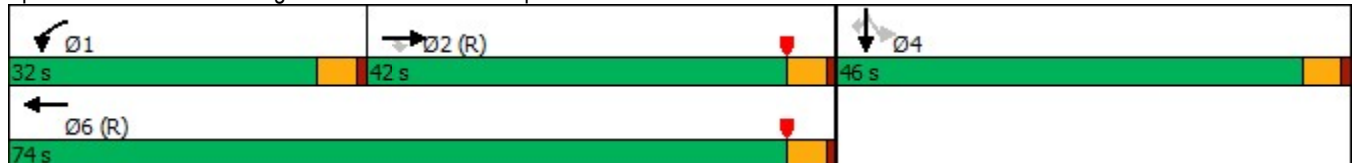


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↓	↔
Traffic Volume (vph)	581	311	385	688	1	345
Future Volume (vph)	581	311	385	688	1	345
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	42.0	42.0	32.0	74.0	46.0	46.0
Total Split (%)	35.0%	35.0%	26.7%	61.7%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	46.3	46.3	18.7	69.5	41.5	41.5
Actuated g/C Ratio	0.39	0.39	0.16	0.58	0.35	0.35
v/c Ratio	0.43	0.39	0.72	0.34	0.47	0.29
Control Delay	23.4	10.3	66.8	13.0	33.7	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	10.3	66.8	13.0	33.7	3.5
LOS	C	B	E	B	C	A
Approach Delay	18.8			32.3	17.7	
Approach LOS	B			C	B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 24.1  
 Intersection Capacity Utilization 58.4%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps





HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

HY (2045) Sunday Morning Without Project  
 Urbarn Crossroads, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑						↖	↘↗
Traffic Volume (veh/h)	0	581	311	385	688	0	0	0	0	304	1	345
Future Volume (veh/h)	0	581	311	385	688	0	0	0	0	304	1	345
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	581	311	385	688	0				304	1	345
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1457	650	455	2058	0				614	2	965
Arrive On Green	0.00	0.41	0.41	0.26	1.00	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1776	6	2790
Grp Volume(v), veh/h	0	581	311	385	688	0				305	0	345
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1782	0	1395
Q Serve(g_s), s	0.0	13.8	17.3	12.7	0.0	0.0				16.2	0.0	11.1
Cycle Q Clear(g_c), s	0.0	13.8	17.3	12.7	0.0	0.0				16.2	0.0	11.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1457	650	455	2058	0				616	0	965
V/C Ratio(X)	0.00	0.40	0.48	0.85	0.33	0.00				0.50	0.00	0.36
Avail Cap(c_a), veh/h	0	1457	650	792	2058	0				616	0	965
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.80	0.80	0.89	0.89	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.0	26.0	43.0	0.0	0.0				31.0	0.0	29.3
Incr Delay (d2), s/veh	0.0	0.7	2.0	3.9	0.4	0.0				2.8	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
%ile BackOfQ(50%),veh/ln	0.0	6.0	6.9	4.9	0.1	0.0				7.4	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.6	28.0	47.0	0.4	0.0				33.8	0.0	30.3
LnGrp LOS	A	C	C	D	A	A				C	A	C
Approach Vol, veh/h					1073							650
Approach Delay, s/veh					17.1							32.0
Approach LOS			C		B							C
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.3	53.7		46.0		74.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	27.5	37.5		41.5		69.5						
Max Q Clear Time (g_c+I1), s	14.7	19.3		18.2		2.0						
Green Ext Time (p_c), s	1.1	4.9		3.4		5.7						

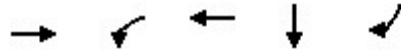
Intersection Summary

HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
1: Singleton Rd. & I-10 EB Ramps

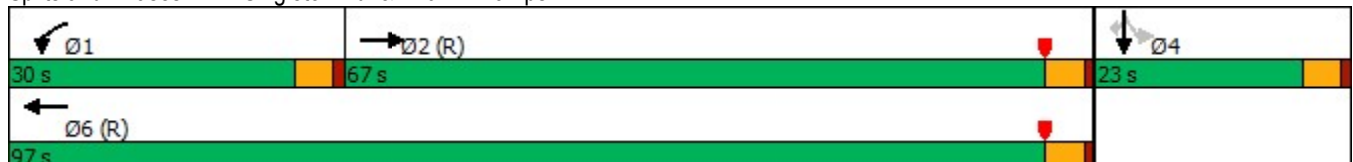


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	581	385	688	1	345
Future Volume (vph)	581	385	688	1	345
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	67.0	30.0	97.0	23.0	23.0
Total Split (%)	55.8%	25.0%	80.8%	19.2%	19.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	62.5	25.5	92.5	18.5	18.5
Actuated g/C Ratio	0.52	0.21	0.77	0.15	0.15
v/c Ratio	1.08	1.16	0.54	1.21	0.80
Control Delay	80.7	116.8	6.3	164.2	26.4
Queue Delay	0.0	0.0	1.2	0.0	0.0
Total Delay	80.7	116.8	7.4	164.2	26.4
LOS	F	F	A	F	C
Approach Delay	80.7		46.7	91.0	
Approach LOS	F		D	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 69.3  
 Intersection Capacity Utilization 121.8%  
 Analysis Period (min) 15  
 Intersection LOS: E  
 ICU Level of Service H

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗						↖	↗
Traffic Volume (veh/h)	0	581	311	385	688	0	0	0	0	304	1	345
Future Volume (veh/h)	0	581	311	385	688	0	0	0	0	304	1	345
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	660	353	438	782	0				345	1	392
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	597	319	379	1442	0				274	1	244
Arrive On Green	0.00	0.52	0.52	0.43	1.00	0.00				0.15	0.15	0.15
Sat Flow, veh/h	0	1147	613	1781	1870	0				1776	5	1585
Grp Volume(v), veh/h	0	0	1013	438	782	0				346	0	392
Grp Sat Flow(s),veh/h/ln	0	0	1760	1781	1870	0				1782	0	1585
Q Serve(g_s), s	0.0	0.0	62.5	25.5	0.0	0.0				18.5	0.0	18.5
Cycle Q Clear(g_c), s	0.0	0.0	62.5	25.5	0.0	0.0				18.5	0.0	18.5
Prop In Lane	0.00		0.35	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	917	379	1442	0				275	0	244
V/C Ratio(X)	0.00	0.00	1.11	1.16	0.54	0.00				1.26	0.00	1.60
Avail Cap(c_a), veh/h	0	0	917	379	1442	0				275	0	244
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.13	0.13	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	28.8	34.5	0.0	0.0				50.8	0.0	50.8
Incr Delay (d2), s/veh	0.0	0.0	62.8	75.0	0.2	0.0				142.9	0.0	290.2
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	0.0	41.0	16.7	0.1	0.0				19.1	0.0	27.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	91.6	109.5	0.2	0.0				193.6	0.0	341.0
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1013			1220						738	
Approach Delay, s/veh		91.6			39.4						271.9	
Approach LOS		F			D						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	30.0	67.0		23.0		97.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	25.5	62.5		18.5		92.5						
Max Q Clear Time (g_c+I1), s	27.5	64.5		20.5		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		7.3						

Intersection Summary

HCM 6th Ctrl Delay	115.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Timings  
2: Singleton Rd. & I-10 WB Ramps

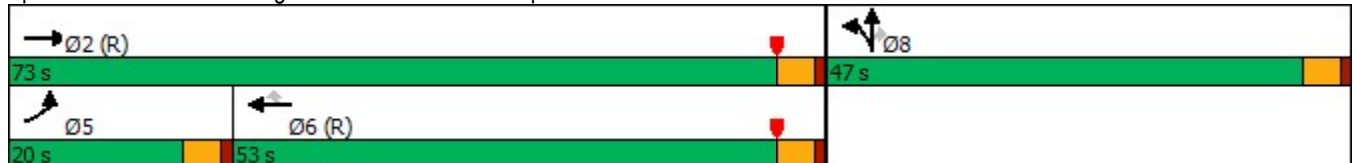
HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	286	607	688	262	384	1	346
Future Volume (vph)	286	607	688	262	384	1	346
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	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.0	73.0	53.0	53.0	47.0	47.0	47.0
Total Split (%)	16.7%	60.8%	44.2%	44.2%	39.2%	39.2%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	15.2	85.6	65.9	65.9	25.4	25.4	25.4
Actuated g/C Ratio	0.13	0.71	0.55	0.55	0.21	0.21	0.21
v/c Ratio	0.66	0.24	0.35	0.27	0.71	0.69	0.46
Control Delay	52.5	5.8	10.2	1.7	54.3	45.6	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	5.8	10.2	1.7	54.3	45.6	7.4
LOS	D	A	B	A	D	D	A
Approach Delay		20.7	7.9			36.5	
Approach LOS		C	A			D	

Intersection Summary
























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 20.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 58.4%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps











HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	286	607	0	0	688	262	384	1	346	0	0	0
Future Volume (veh/h)	286	607	0	0	688	262	384	1	346	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	286	607	0	0	688	262	492	0	231			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	343	2651	0	0	2165	966	638	0	284			
Arrive On Green	0.20	1.00	0.00	0.00	1.00	1.00	0.18	0.00	0.18			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	286	607	0	0	688	262	492	0	231			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	9.5	0.0	0.0	0.0	0.0	0.0	15.8	0.0	16.8			
Cycle Q Clear(g_c), s	9.5	0.0	0.0	0.0	0.0	0.0	15.8	0.0	16.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	343	2651	0	0	2165	966	638	0	284			
V/C Ratio(X)	0.83	0.23	0.00	0.00	0.32	0.27	0.77	0.00	0.81			
Avail Cap(c_a), veh/h	446	2651	0	0	2165	966	1262	0	561			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.91	0.91	0.00	0.00	0.88	0.88	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.1	0.0	0.0	0.0	0.0	0.0	46.9	0.0	47.3			
Incr Delay (d2), s/veh	9.3	0.2	0.0	0.0	0.3	0.6	2.0	0.0	5.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	0.1	0.0	0.0	0.1	0.2	7.2	0.0	7.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	0.2	0.0	0.0	0.3	0.6	48.9	0.0	53.0			
LnGrp LOS	E	A	A	A	A	A	D	A	D			
Approach Vol, veh/h		893			950			723				
Approach Delay, s/veh		18.2			0.4			50.2				
Approach LOS		B			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		94.0			16.4	77.6		26.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		68.5			15.5	48.5		42.5				
Max Q Clear Time (g_c+I1), s		2.0			11.5	2.0		18.8				
Green Ext Time (p_c), s		4.9			0.4	6.8		2.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				20.6								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

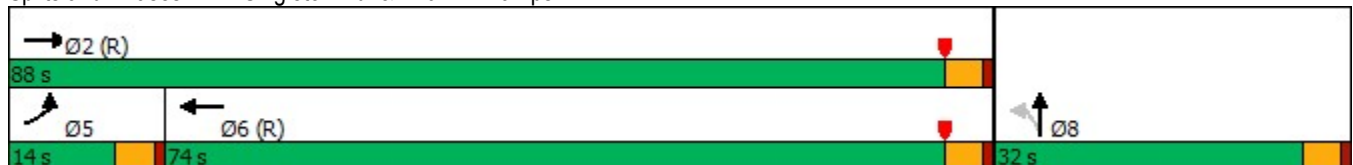
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	286	607	688	1
Future Volume (vph)	286	607	688	1
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	73.0	28.0
Total Split (s)	14.0	88.0	74.0	32.0
Total Split (%)	11.7%	73.3%	61.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	9.5	83.5	69.5	27.5
Actuated g/C Ratio	0.08	0.70	0.58	0.23
v/c Ratio	2.22	0.51	0.98	1.91
Control Delay	575.3	12.5	49.0	444.4
Queue Delay	0.0	1.0	0.0	0.0
Total Delay	575.3	13.5	49.0	444.4
LOS	F	B	D	F
Approach Delay		193.5	49.0	444.4
Approach LOS		F	D	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.22  
 Intersection Signal Delay: 211.3  
 Intersection LOS: F  
 Intersection Capacity Utilization 121.8%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	607	0	0	688	262	384	1	346	0	0	0
Future Volume (veh/h)	286	607	0	0	688	262	384	1	346	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	311	660	0	0	748	285	417	1	376			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	141	1301	0	0	747	285	203	0	183			
Arrive On Green	0.16	1.00	0.00	0.00	0.58	0.58	0.23	0.23	0.23			
Sat Flow, veh/h	1781	1870	0	0	1290	492	884	2	797			
Grp Volume(v), veh/h	311	660	0	0	0	1033	794	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1782	1683	0	0			
Q Serve(g_s), s	9.5	0.0	0.0	0.0	0.0	69.5	27.5	0.0	0.0			
Cycle Q Clear(g_c), s	9.5	0.0	0.0	0.0	0.0	69.5	27.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.28	0.53		0.47			
Lane Grp Cap(c), veh/h	141	1301	0	0	0	1032	386	0	0			
V/C Ratio(X)	2.21	0.51	0.00	0.00	0.00	1.00	2.06	0.00	0.00			
Avail Cap(c_a), veh/h	141	1301	0	0	0	1032	386	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	50.5	0.0	0.0	0.0	0.0	25.3	46.3	0.0	0.0			
Incr Delay (d2), s/veh	544.5	0.1	0.0	0.0	0.0	28.2	485.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	25.2	0.0	0.0	0.0	0.0	35.4	63.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	595.0	0.1	0.0	0.0	0.0	53.5	531.7	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		971			1033			794				
Approach Delay, s/veh		190.7			53.5			531.7				
Approach LOS		F			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		88.0			14.0	74.0		32.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		83.5			9.5	69.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0			11.5	71.5		29.5				
Green Ext Time (p_c), s		5.5			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					236.8							
HCM 6th LOS					F							

Timings  
3: Calimesa Bl. & Singleton Rd.

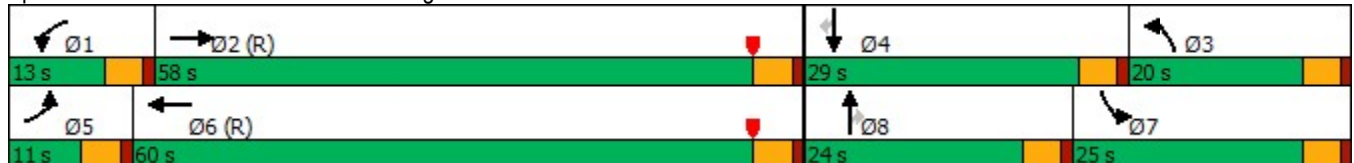
HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	128	800	34	832	94	51	39	130	72	117
Future Volume (vph)	128	800	34	832	94	51	39	130	72	117
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	11.0	58.0	13.0	60.0	20.0	24.0	24.0	25.0	29.0	29.0
Total Split (%)	9.2%	48.3%	10.8%	50.0%	16.7%	20.0%	20.0%	20.8%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	9.3	73.1	7.7	67.3	13.8	11.6	11.6	16.7	11.6	11.6
Actuated g/C Ratio	0.08	0.61	0.06	0.56	0.12	0.10	0.10	0.14	0.10	0.10
v/c Ratio	0.48	0.43	0.29	0.47	0.46	0.15	0.14	0.53	0.21	0.45
Control Delay	63.1	14.6	58.9	15.0	50.7	73.7	6.2	56.7	50.5	14.3
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	14.8	58.9	15.0	50.7	73.7	6.2	56.7	50.5	14.3
LOS	E	B	E	B	D	E	A	E	D	B
Approach Delay		20.7		16.5		47.6			39.8	
Approach LOS		C		B		D			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.53  
 Intersection Signal Delay: 23.4  
 Intersection Capacity Utilization 56.5%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

































Splits and Phases: 3: Calimesa Bl. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 	 	 	 	 
Traffic Volume (veh/h)	128	800	110	34	832	133	94	51	39	130	72	117
Future Volume (veh/h)	128	800	110	34	832	133	94	51	39	130	72	117
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	128	800	110	34	832	133	94	51	39	130	72	117
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	2038	280	50	1970	315	156	296	132	158	301	134
Arrive On Green	0.10	1.00	1.00	0.06	1.00	1.00	0.09	0.08	0.08	0.09	0.08	0.08
Sat Flow, veh/h	3456	3138	431	1781	3147	503	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	128	453	457	34	494	471	94	51	39	130	72	117
Grp Sat Flow(s),veh/h/ln	1728	1777	1793	1781	1870	1780	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.3	0.0	0.0	2.2	0.0	0.0	6.1	1.6	2.5	8.6	2.3	7.5
Cycle Q Clear(g_c), s	4.3	0.0	0.0	2.2	0.0	0.0	6.1	1.6	2.5	8.6	2.3	7.5
Prop In Lane	1.00		0.24	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	1154	1164	50	1171	1114	156	296	132	158	301	134
V/C Ratio(X)	0.71	0.39	0.39	0.68	0.42	0.42	0.60	0.17	0.30	0.82	0.24	0.87
Avail Cap(c_a), veh/h	187	1154	1164	126	1171	1114	230	577	258	304	726	324
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	0.0	0.0	56.1	0.0	0.0	52.7	51.2	40.7	53.7	51.3	40.3
Incr Delay (d2), s/veh	11.2	1.0	1.0	14.6	1.1	1.2	3.7	0.3	1.2	10.0	0.4	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.3	0.3	1.2	0.4	0.4	2.9	0.7	1.1	4.3	1.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	1.0	1.0	70.7	1.1	1.2	56.5	51.4	41.9	63.7	51.7	55.6
LnGrp LOS	E	A	A	E	A	A	E	D	D	E	D	E
Approach Vol, veh/h		1038			999			184			319	
Approach Delay, s/veh		8.7			3.5			52.0			58.0	
Approach LOS		A			A			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	82.4	15.0	14.7	10.7	79.6	15.2	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	53.5	15.5	24.5	6.5	55.5	20.5	19.5				
Max Q Clear Time (g_c+I1), s	4.2	2.0	8.1	9.5	6.3	2.0	10.6	4.5				
Green Ext Time (p_c), s	0.0	7.3	0.1	0.6	0.0	8.0	0.2	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				16.0								
HCM 6th LOS				B								

Timings  
4: Beckwith Av. & Singleton Rd.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

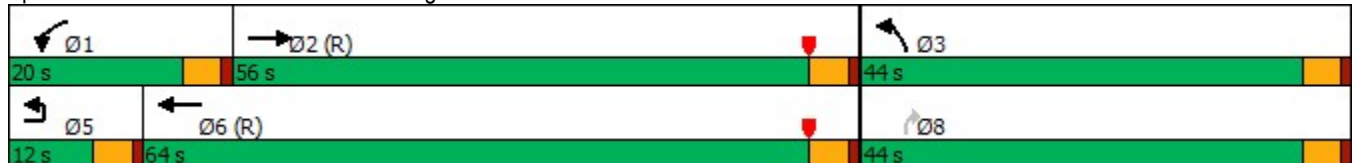


Lane Group	EBU	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↕	↖	↕↕	↖	↖
Traffic Volume (vph)	34	589	87	662	321	80
Future Volume (vph)	34	589	87	662	321	80
Turn Type	Prot	NA	Prot	NA	Prot	Perm
Protected Phases	5	2	1	6	3	
Permitted Phases						8
Detector Phase	5	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	12.0	56.0	20.0	64.0	44.0	44.0
Total Split (%)	10.0%	46.7%	16.7%	53.3%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	C-Max	None	Max
Act Effct Green (s)	6.9	55.8	11.2	64.3	39.5	39.5
Actuated g/C Ratio	0.06	0.46	0.09	0.54	0.33	0.33
v/c Ratio	0.33	0.58	0.53	0.35	0.55	0.14
Control Delay	70.7	20.7	54.3	13.3	37.3	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.7	20.7	54.3	13.3	37.3	6.7
LOS	E	C	D	B	D	A
Approach Delay		22.5		18.1	31.2	
Approach LOS		C		B	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.58  
 Intersection Signal Delay: 22.6  
 Intersection Capacity Utilization 61.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕		↕	↕	↕	↕
Traffic Volume (veh/h)	34	589	349	87	662	321	80
Future Volume (veh/h)	34	589	349	87	662	321	80
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		589	349	87	662	321	80
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1339	794	110	2571	359	319
Arrive On Green		1.00	1.00	0.06	0.72	0.20	0.20
Sat Flow, veh/h		2240	1272	1781	3647	1781	1585
Grp Volume(v), veh/h		488	450	87	662	321	80
Grp Sat Flow(s),veh/h/ln		1777	1641	1781	1777	1781	1585
Q Serve(g_s), s		0.0	0.0	5.8	7.6	21.1	5.1
Cycle Q Clear(g_c), s		0.0	0.0	5.8	7.6	21.1	5.1
Prop In Lane			0.77	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1109	1024	110	2571	359	319
V/C Ratio(X)		0.44	0.44	0.79	0.26	0.89	0.25
Avail Cap(c_a), veh/h		1109	1024	230	2571	586	522
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	55.5	5.6	46.7	40.3
Incr Delay (d2), s/veh		1.3	1.4	11.6	0.2	10.2	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		0.4	0.4	3.0	2.7	10.2	2.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		1.3	1.4	67.1	5.9	56.8	40.7
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		938			749	401	
Approach Delay, s/veh		1.3			13.0	53.6	
Approach LOS		A			B	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	11.9	79.4			91.3	28.7	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	15.5	51.5			59.5	39.5	
Max Q Clear Time (g_c+I1), s	7.8	2.0			9.6	23.1	
Green Ext Time (p_c), s	0.1	7.9			5.4	1.1	

Intersection Summary

HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↗
Traffic Volume (vph)	42	590	2	702	3	2	9	2
Future Volume (vph)	42	590	2	702	3	2	9	2
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	27.0	10.0	26.0	23.0	23.0	23.0	23.0
Total Split (%)	18.3%	45.0%	16.7%	43.3%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	6.2	30.5	5.5	28.1	18.5	18.5	18.5	18.5
Actuated g/C Ratio	0.10	0.51	0.09	0.47	0.31	0.31	0.31	0.31
v/c Ratio	0.23	0.33	0.01	0.43	0.01	0.01	0.02	0.11
Control Delay	22.1	17.6	25.0	12.9	14.7	12.2	14.8	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	17.6	25.0	12.9	14.7	12.2	14.8	5.9
LOS	C	B	C	B	B	B	B	A
Approach Delay		17.9		12.9		13.3		7.1
Approach LOS		B		B		B		A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.43  
 Intersection Signal Delay: 14.9  
 Intersection Capacity Utilization 43.4%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	42	590	2	2	702	7	3	2	2	9	2	55
Future Volume (veh/h)	42	590	2	2	702	7	3	2	2	9	2	55
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	42	590	2	2	702	7	3	2	2	9	2	55
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1685	6	5	1531	15	501	265	265	553	17	474
Arrive On Green	0.04	0.46	0.46	0.00	0.42	0.42	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3633	12	1781	3605	36	1346	858	858	1412	56	1538
Grp Volume(v), veh/h	42	289	303	2	346	363	3	0	4	9	0	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1777	1864	1346	0	1716	1412	0	1594
Q Serve(g_s), s	1.4	6.2	6.2	0.1	8.3	8.3	0.1	0.0	0.1	0.3	0.0	1.5
Cycle Q Clear(g_c), s	1.4	6.2	6.2	0.1	8.3	8.3	1.6	0.0	0.1	0.4	0.0	1.5
Prop In Lane	1.00		0.01	1.00		0.02	1.00		0.50	1.00		0.96
Lane Grp Cap(c), veh/h	75	824	867	5	755	792	501	0	529	553	0	491
V/C Ratio(X)	0.56	0.35	0.35	0.41	0.46	0.46	0.01	0.00	0.01	0.02	0.00	0.12
Avail Cap(c_a), veh/h	193	824	867	163	755	792	501	0	529	553	0	491
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	28.2	10.3	10.3	29.9	12.3	12.3	15.5	0.0	14.4	14.5	0.0	14.9
Incr Delay (d2), s/veh	6.5	1.2	1.1	47.3	2.0	1.9	0.0	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.4	2.5	0.1	3.3	3.4	0.0	0.0	0.0	0.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	11.5	11.4	77.2	14.3	14.2	15.5	0.0	14.4	14.6	0.0	15.4
LnGrp LOS	C	B	B	E	B	B	B	A	B	B	A	B
Approach Vol, veh/h		634			711			7				66
Approach Delay, s/veh		13.0			14.5			14.9				15.3
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	32.3		23.0	7.0	30.0		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	22.5		18.5	6.5	21.5		18.5				
Max Q Clear Time (g_c+I1), s	2.1	8.2		3.5	3.4	10.3		3.6				
Green Ext Time (p_c), s	0.0	3.1		0.2	0.0	3.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings  
6: Calimesa Bl. & 5th St.

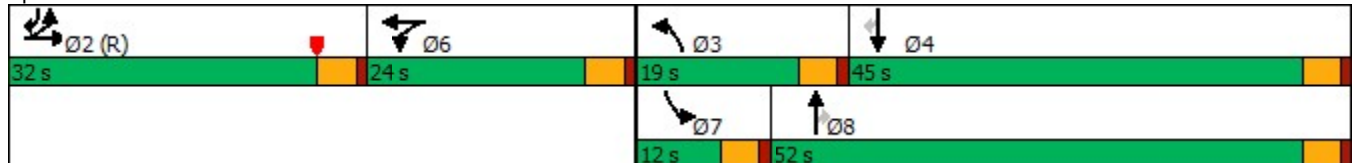
HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	178	227	80	309	227	457	175	40	178	380
Future Volume (vph)	178	227	80	309	227	457	175	40	178	380
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	32.0	32.0	24.0	24.0	19.0	52.0	52.0	12.0	45.0	32.0
Total Split (%)	26.7%	26.7%	20.0%	20.0%	15.8%	43.3%	43.3%	10.0%	37.5%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	27.5	27.5	16.7	16.7	12.6	52.7	52.7	7.1	45.2	77.2
Actuated g/C Ratio	0.23	0.23	0.14	0.14	0.10	0.44	0.44	0.06	0.38	0.64
v/c Ratio	0.39	0.39	0.33	0.71	0.61	0.56	0.23	0.38	0.25	0.36
Control Delay	42.9	39.4	49.4	56.0	53.9	29.8	12.3	65.0	28.3	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	39.4	49.4	56.0	53.9	29.8	12.3	65.0	28.3	8.9
LOS	D	D	D	E	D	C	B	E	C	A
Approach Delay		40.5		54.8		32.6			18.4	
Approach LOS		D		D		C			B	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 34.6  
 Intersection Capacity Utilization 61.5%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	227	36	80	309	41	227	457	175	40	178	380
Future Volume (veh/h)	178	227	36	80	309	41	227	457	175	40	178	380
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	147	270	36	80	309	41	227	457	175	40	178	380
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	536	974	128	218	387	51	291	740	627	55	645	1024
Arrive On Green	0.30	0.30	0.30	0.12	0.12	0.12	0.08	0.40	0.40	0.03	0.34	0.34
Sat Flow, veh/h	1781	3237	427	1781	3157	415	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	147	155	151	80	173	177	227	457	175	40	178	380
Grp Sat Flow(s),veh/h/ln	1781	1870	1794	1781	1777	1796	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.5	7.6	7.7	5.0	11.3	11.5	7.5	23.4	9.0	2.7	8.3	13.4
Cycle Q Clear(g_c), s	7.5	7.6	7.7	5.0	11.3	11.5	7.5	23.4	9.0	2.7	8.3	13.4
Prop In Lane	1.00		0.24	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	536	563	540	218	218	220	291	740	627	55	645	1024
V/C Ratio(X)	0.27	0.27	0.28	0.37	0.79	0.81	0.78	0.62	0.28	0.73	0.28	0.37
Avail Cap(c_a), veh/h	536	563	540	289	289	292	430	740	627	111	645	1024
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(l)	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	32.0	32.0	32.0	48.4	51.2	51.3	54.0	29.0	24.6	57.7	28.5	9.9
Incr Delay (d2), s/veh	1.3	1.2	1.3	1.0	10.5	11.6	5.4	3.8	1.1	17.0	1.1	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	3.5	3.6	3.6	2.3	5.7	5.9	3.5	11.1	3.5	1.5	3.9	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	33.2	33.3	49.4	61.7	62.9	59.4	32.8	25.7	74.7	29.5	10.9
LnGrp LOS	C	C	C	D	E	E	E	C	C	E	C	B
Approach Vol, veh/h		453			430			859			598	
Approach Delay, s/veh		33.2			59.9			38.4			20.7	
Approach LOS		C			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		40.6	14.3	45.9		19.2	8.2	52.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	14.5	40.5		19.5	7.5	47.5				
Max Q Clear Time (g_c+I1), s		9.7	9.5	15.4		13.5	4.7	25.4				
Green Ext Time (p_c), s		2.0	0.3	2.4		1.2	0.0	3.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				36.8								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
7: Roberts Rd. & Cherry Valley Bl.

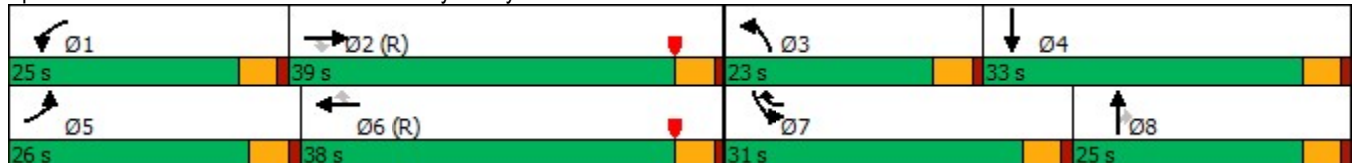
HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	316	502	50	300	502	358	28	4	174	408	13
Future Volume (vph)	316	502	50	300	502	358	28	4	174	408	13
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	39.0	39.0	25.0	38.0	31.0	23.0	25.0	25.0	31.0	33.0
Total Split (%)	21.7%	32.5%	32.5%	20.8%	31.7%	25.8%	19.2%	20.8%	20.8%	25.8%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	16.3	39.3	39.3	15.7	38.7	69.7	18.5	20.5	20.5	26.5	28.5
Actuated g/C Ratio	0.14	0.33	0.33	0.13	0.32	0.58	0.15	0.17	0.17	0.22	0.24
v/c Ratio	0.68	0.43	0.08	0.67	0.44	0.35	0.10	0.01	0.42	0.54	0.43
Control Delay	56.8	33.7	0.3	55.3	33.3	2.9	44.9	41.5	9.7	44.4	8.5
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	56.8	33.7	0.3	55.3	33.3	2.9	44.9	41.5	9.7	44.4	8.5
LOS	E	C	A	E	C	A	D	D	A	D	A
Approach Delay		40.2			29.6			15.1			31.1
Approach LOS		D			C			B			C

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 32.1  
 Intersection Capacity Utilization 57.4%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B






























Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 					 		
Traffic Volume (veh/h)	316	502	50	300	502	358	28	4	174	408	13	227
Future Volume (veh/h)	316	502	50	300	502	358	28	4	174	408	13	227
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	316	502	50	300	502	358	28	4	174	408	13	227
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	1255	560	364	1230	899	275	320	271	763	21	359
Arrive On Green	0.11	0.35	0.35	0.21	0.69	0.69	0.15	0.17	0.17	0.22	0.24	0.24
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	87	1512
Grp Volume(v), veh/h	316	502	50	300	502	358	28	4	174	408	0	240
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1598
Q Serve(g_s), s	10.7	12.8	2.5	10.0	7.3	10.1	1.6	0.2	12.3	12.5	0.0	16.2
Cycle Q Clear(g_c), s	10.7	12.8	2.5	10.0	7.3	10.1	1.6	0.2	12.3	12.5	0.0	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	387	1255	560	364	1230	899	275	320	271	763	0	380
V/C Ratio(X)	0.82	0.40	0.09	0.83	0.41	0.40	0.10	0.01	0.64	0.53	0.00	0.63
Avail Cap(c_a), veh/h	619	1255	560	590	1230	899	275	320	271	763	0	380
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.1	29.2	25.9	46.3	13.2	6.3	43.6	41.3	46.3	41.3	0.0	41.0
Incr Delay (d2), s/veh	4.5	1.0	0.3	4.7	0.9	1.2	0.7	0.1	11.2	2.7	0.0	7.8
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	5.6	1.0	4.1	2.5	2.5	0.8	0.1	5.7	5.6	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	30.2	26.2	51.1	14.1	7.6	44.4	41.4	57.5	44.0	0.0	48.8
LnGrp LOS	E	C	C	D	B	A	D	D	E	D	A	D
Approach Vol, veh/h		868			1160			206				648
Approach Delay, s/veh		39.6			21.7			55.4				45.8
Approach LOS		D			C			E				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.1	46.9	23.0	33.0	17.9	46.1	31.0	25.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.5	34.5	18.5	28.5	21.5	33.5	26.5	20.5				
Max Q Clear Time (g_c+I1), s	12.0	14.8	3.6	18.2	12.7	12.1	14.5	14.3				
Green Ext Time (p_c), s	0.7	3.3	0.0	1.0	0.7	4.6	1.2	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.9									
HCM 6th LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

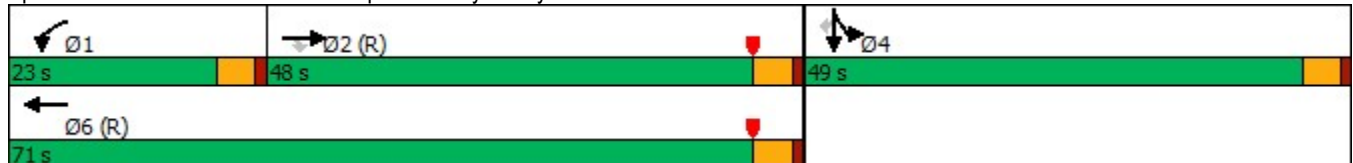


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↓	↔
Traffic Volume (vph)	866	203	312	561	3	571
Future Volume (vph)	866	203	312	561	3	571
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	48.0	48.0	23.0	71.0	49.0	49.0
Total Split (%)	40.0%	40.0%	19.2%	59.2%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Min	Max	Max
Act Effct Green (s)	46.3	46.3	15.7	66.5	44.5	44.5
Actuated g/C Ratio	0.39	0.39	0.13	0.55	0.37	0.37
v/c Ratio	0.63	0.29	0.69	0.29	0.74	0.42
Control Delay	31.7	12.5	73.3	13.8	41.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	12.5	73.3	13.8	41.0	4.6
LOS	C	B	E	B	D	A
Approach Delay	28.1			35.1	21.4	
Approach LOS	C			D	C	

Intersection Summary

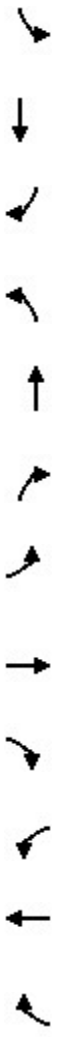
Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 27.8  
 Intersection Capacity Utilization 71.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) Sunday Morning Without Project  
Urban Crossroads, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↔	↕↕	↕↕						↕	↕↕
Traffic Volume (veh/h)	0	866	203	312	561	0	0	0	0	486	3	571
Future Volume (veh/h)	0	866	203	312	561	0	0	0	0	486	3	571
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
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	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	866	203	312	561	0				486	3	571
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1453	648	373	1969	0				657	4	1035
Arrive On Green	0.00	0.82	0.82	0.22	1.00	0.00				0.37	0.37	0.37
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1771	11	2790
Grp Volume(v), veh/h	0	866	203	312	561	0				489	0	571
Grp Sat Flow(s), veh/h	0	1777	1585	1728	1777	0				1782	0	1395
Q Serve(g_s), s	0.0	10.4	3.8	10.4	0.0	0.0				28.6	0.0	19.4
Cycle Q Clear(g_c), s	0.0	10.4	3.8	10.4	0.0	0.0				28.6	0.0	19.4
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1453	648	373	1969	0				661	0	1035
V/C Ratio(X)	0.00	0.60	0.31	0.84	0.28	0.00				0.74	0.00	0.55
Avail Cap(c_a), veh/h	0	1453	648	533	1969	0				661	0	1035
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.4	6.8	46.1	0.0	0.0				32.7	0.0	29.9
Incr Delay (d2), s/veh	0.0	1.6	1.1	7.4	0.3	0.0				7.3	0.0	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
%ile BackOfQ(50%),veh/h	0.0	2.7	1.3	4.3	0.1	0.0				13.5	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.0	7.9	53.4	0.3	0.0				40.0	0.0	32.0
LnGrp LOS	A	A	A	D	A	A				D	A	C
Approach Vol, veh/h		1069			873					1060		
Approach Delay, s/veh		8.8			19.3					35.7		
Approach LOS		A			B					D		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.4	53.6		49.0		71.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	18.5	43.5		44.5		66.5						
Max Q Clear Time (g_c+I1), s	12.4	12.4		30.6		2.0						
Green Ext Time (p_c), s	0.6	7.7		5.0		4.2						

Intersection Summary

















HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

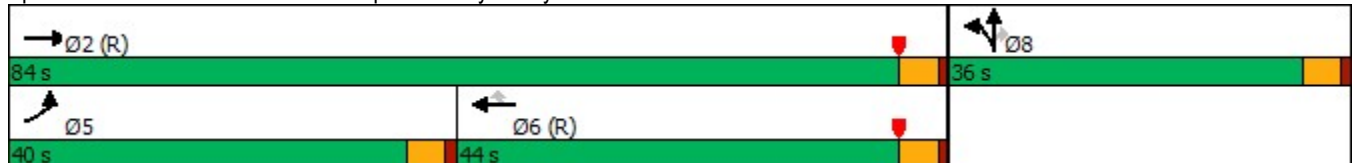
HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

						
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	 	 	 		 	
Traffic Volume (vph)	643	644	682	402	6	408
Future Volume (vph)	643	644	682	402	6	408
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	40.0	84.0	44.0	44.0	36.0	36.0
Total Split (%)	33.3%	70.0%	36.7%	36.7%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Max	C-Max	None	None
Act Effct Green (s)	27.8	91.2	58.9	58.9	19.8	19.8
Actuated g/C Ratio	0.23	0.76	0.49	0.49	0.16	0.16
v/c Ratio	0.81	0.24	0.39	0.36	0.67	0.72
Control Delay	47.2	4.2	14.2	1.4	57.8	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	4.2	14.2	1.4	57.8	19.2
LOS	D	A	B	A	E	B
Approach Delay		25.7	9.4		31.8	
Approach LOS		C	A		C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 21.0  
 Intersection Capacity Utilization 71.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

HY (2045) Sunday Morning Without Project  
 Urbarn Crossroads, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑	↔		↔	↔			
Traffic Volume (veh/h)	643	644	0	0	682	402	191	6	408	0	0	0
Future Volume (veh/h)	643	644	0	0	682	402	191	6	408	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	643	644	0	0	682	402	191	6	408			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	716	2354	0	0	1485	662	454	14	416			
Arrive On Green	0.41	1.00	0.00	0.00	0.84	0.84	0.26	0.26	0.26			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1730	54	1585			
Grp Volume(v), veh/h	643	644	0	0	682	402	197	0	408			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1784	0	1585			
Q Serve(g_s), s	20.8	0.0	0.0	0.0	6.1	10.1	11.0	0.0	30.7			
Cycle Q Clear(g_c), s	20.8	0.0	0.0	0.0	6.1	10.1	11.0	0.0	30.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	716	2354	0	0	1485	662	468	0	416			
V/C Ratio(X)	0.90	0.27	0.00	0.00	0.46	0.61	0.42	0.00	0.98			
Avail Cap(c_a), veh/h	1022	2354	0	0	1485	662	468	0	416			
HCM Platoon Ratio	2.00	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.73	0.73	0.00	0.00	0.83	0.83	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.0	0.0	0.0	0.0	6.2	6.6	36.7	0.0	43.9			
Incr Delay (d2), s/veh	6.0	0.2	0.0	0.0	0.9	3.4	0.6	0.0	38.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.4	0.1	0.0	0.0	1.8	2.6	4.9	0.0	16.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.2	0.0	0.0	7.1	10.0	37.3	0.0	82.8			
LnGrp LOS	D	A	A	A	A	A	D	A	F			
Approach Vol, veh/h		1287			1084			605				
Approach Delay, s/veh		20.1			8.2			68.0				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.0			29.4	54.6		36.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		79.5			35.5	39.5		31.5				
Max Q Clear Time (g_c+I1), s		2.0			22.8	12.1		32.7				
Green Ext Time (p_c), s		5.0			2.0	6.7		0.0				

Intersection Summary

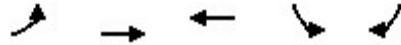
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) Sunday Morning Without Project  
Urban Crossroads, Inc.

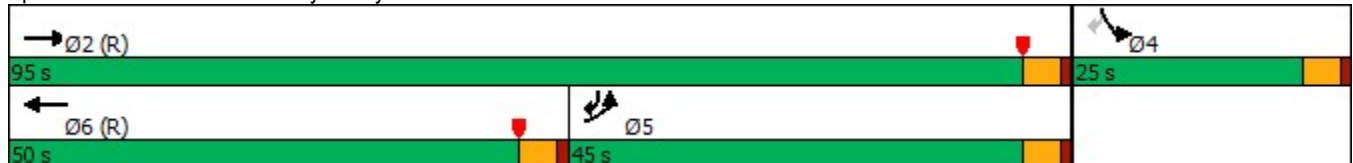


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↑↑	↑↑	↖	↖
Traffic Volume (vph)	337	717	709	92	321
Future Volume (vph)	337	717	709	92	321
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	45.0	95.0	50.0	25.0	45.0
Total Split (%)	37.5%	79.2%	41.7%	20.8%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	40.5	90.5	45.5	20.5	65.5
Actuated g/C Ratio	0.34	0.75	0.38	0.17	0.55
v/c Ratio	0.56	0.27	0.61	0.30	0.35
Control Delay	36.9	6.5	31.9	45.8	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	6.5	31.9	45.8	10.4
LOS	D	A	C	D	B
Approach Delay		16.2	31.9	18.3	
Approach LOS		B	C	B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 22.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 57.9%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) Sunday Morning Without Project  
 Urbarn Crossroads, Inc.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	337	717	709	104	92	321
Future Volume (veh/h)	337	717	709	104	92	321
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	337	717	709	104	92	321
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	601	2680	1179	173	304	806
Arrive On Green	0.68	1.00	0.38	0.38	0.17	0.17
Sat Flow, veh/h	1781	3647	3203	456	1781	1585
Grp Volume(v), veh/h	337	717	405	408	92	321
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1788	1781	1585
Q Serve(g_s), s	11.9	0.0	22.0	22.0	5.4	0.0
Cycle Q Clear(g_c), s	11.9	0.0	22.0	22.0	5.4	0.0
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	601	2680	674	678	304	806
V/C Ratio(X)	0.56	0.27	0.60	0.60	0.30	0.40
Avail Cap(c_a), veh/h	601	2680	674	678	304	806
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.91	0.91	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	30.0	30.0	43.5	18.2
Incr Delay (d2), s/veh	1.1	0.2	3.9	3.9	2.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.1	9.9	10.0	2.6	11.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	0.2	33.9	33.9	46.0	19.7
LnGrp LOS	B	A	C	C	D	B
Approach Vol, veh/h		1054	813		413	
Approach Delay, s/veh		5.2	33.9		25.5	
Approach LOS		A	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		95.0		25.0	45.0	50.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		90.5		20.5	40.5	45.5
Max Q Clear Time (g_c+I1), s		2.0		7.4	13.9	24.0
Green Ext Time (p_c), s		5.7		1.2	1.0	5.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			19.1			
HCM 6th LOS			B			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

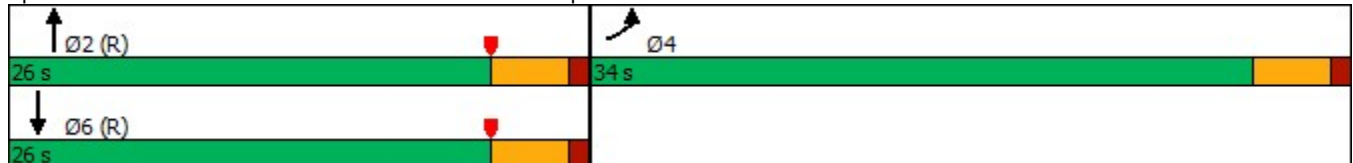


Lane Group	EBL	NBT	SBT
Lane Configurations	↘	↑↑	↑
Traffic Volume (vph)	538	289	296
Future Volume (vph)	538	289	296
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.0	22.0	22.0
Total Split (s)	34.0	26.0	26.0
Total Split (%)	56.7%	43.3%	43.3%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	23.6	27.4	27.4
Actuated g/C Ratio	0.39	0.46	0.46
v/c Ratio	0.78	0.17	0.35
Control Delay	23.8	11.3	19.3
Queue Delay	0.0	0.0	0.0
Total Delay	23.8	11.3	19.3
LOS	C	B	B
Approach Delay	23.8	11.3	19.3
Approach LOS	C	B	B

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 19.4  
 Intersection Capacity Utilization 53.2%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp





HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) Sunday Morning Without Project  
 Urbarn Crossroads, Inc.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	538	6	0	289	296	0
Future Volume (veh/h)	538	6	0	289	296	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	538	3	0	289	296	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	599	3	0	1911	956	0
Arrive On Green	0.44	0.34	0.00	0.51	0.51	0.00
Sat Flow, veh/h	1767	10	0	3741	1870	0
Grp Volume(v), veh/h	542	0	0	289	296	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1870	1870	0
Q Serve(g_s), s	16.9	0.0	0.0	2.5	5.5	0.0
Cycle Q Clear(g_c), s	16.9	0.0	0.0	2.5	5.5	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	604	0	0	1911	956	0
V/C Ratio(X)	0.90	0.00	0.00	0.15	0.31	0.00
Avail Cap(c_a), veh/h	875	0	0	1911	956	0
HCM Platoon Ratio	1.30	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.8	0.0	0.0	7.8	8.5	0.0
Incr Delay (d2), s/veh	8.9	0.0	0.0	0.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	0.0	0.8	2.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.7	0.0	0.0	7.9	9.4	0.0
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h	542			289	296	
Approach Delay, s/veh	24.7			7.9	9.4	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		35.2		24.8		35.2
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		4.5		18.9		7.5
Green Ext Time (p_c), s		1.6		1.4		1.4

Intersection Summary

HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

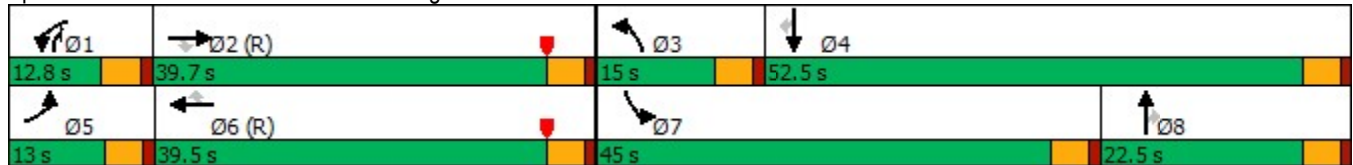
HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	625	68	117	704	479	72	139	99	426	221	151
Future Volume (vph)	63	625	68	117	704	479	72	139	99	426	221	151
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	13.0	39.7	39.7	12.8	39.5	39.5	15.0	22.5	12.8	45.0	52.5	52.5
Total Split (%)	10.8%	33.1%	33.1%	10.7%	32.9%	32.9%	12.5%	18.8%	10.7%	37.5%	43.8%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	8.6	48.1	48.1	8.6	50.1	50.1	9.2	11.8	24.9	33.6	38.3	38.3
Actuated g/C Ratio	0.07	0.40	0.40	0.07	0.42	0.42	0.08	0.10	0.21	0.28	0.32	0.32
v/c Ratio	0.50	0.42	0.10	0.46	0.45	0.54	0.53	0.38	0.24	0.86	0.19	0.25
Control Delay	66.8	28.8	0.3	55.1	28.2	12.4	67.5	53.1	8.6	58.1	29.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	28.8	0.3	55.1	28.2	12.4	67.5	53.1	8.6	58.1	29.4	4.9
LOS	E	C	A	E	C	B	E	D	A	E	C	A
Approach Delay		29.4			24.8			42.2			40.1	
Approach LOS		C			C			D			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 49 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 31.5  
 Intersection Capacity Utilization 70.6%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

HY (2045) Sunday Morning Without Project  
Urbarn Crossroads, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	625	68	117	704	479	72	139	99	426	221	151
Future Volume (veh/h)	63	625	68	117	704	479	72	139	99	426	221	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	625	38	117	704	249	72	139	54	426	221	76
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1719	729	173	1731	733	92	312	209	460	1085	460
Arrive On Green	0.05	0.46	0.46	0.05	0.46	0.46	0.05	0.08	0.08	0.26	0.29	0.29
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	63	625	38	117	704	249	72	139	54	426	221	76
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.2	13.0	1.6	3.9	14.9	12.0	4.8	4.2	3.7	28.0	5.3	4.3
Cycle Q Clear(g_c), s	4.2	13.0	1.6	3.9	14.9	12.0	4.8	4.2	3.7	28.0	5.3	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	1719	729	173	1731	733	92	312	209	460	1085	460
V/C Ratio(X)	0.78	0.36	0.05	0.68	0.41	0.34	0.78	0.45	0.26	0.93	0.20	0.17
Avail Cap(c_a), veh/h	126	1719	729	246	1731	733	156	561	315	601	1496	634
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	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	21.0	17.9	56.2	21.3	20.5	56.2	52.4	46.8	43.4	32.1	31.8
Incr Delay (d2), s/veh	14.6	0.6	0.1	4.4	0.7	1.2	13.2	1.0	0.6	17.3	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	2.2	5.8	0.6	1.8	6.7	4.7	2.5	2.0	1.5	14.4	2.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.3	21.6	18.1	60.6	22.0	21.8	69.5	53.4	47.5	60.7	32.2	31.9
LnGrp LOS	E	C	B	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		726			1070			265		723		
Approach Delay, s/veh		25.8			26.2			56.5		49.0		
Approach LOS		C			C			E		D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	59.7	10.7	39.3	10.0	60.0	35.5	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.3	35.2	10.5	48.0	8.5	35.0	40.5	18.0				
Max Q Clear Time (g_c+I1), s	5.9	15.0	6.8	7.3	6.2	16.9	30.0	6.2				
Green Ext Time (p_c), s	0.1	4.4	0.0	1.8	0.0	5.6	1.0	0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.9									
HCM 6th LOS			C									

**APPENDIX 7.7: HORIZON YEAR (2045) WITH PROJECT SCENARIO 1  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Timings  
1: Singleton Rd. & I-10 EB Ramps

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↓	↘↙
Traffic Volume (vph)	680	447	580	589	0	350
Future Volume (vph)	680	447	580	589	0	350
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	43.0	43.0	36.0	79.0	41.0	41.0
Total Split (%)	35.8%	35.8%	30.0%	65.8%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	44.5	44.5	25.5	74.5	36.5	36.5
Actuated g/C Ratio	0.37	0.37	0.21	0.62	0.30	0.30
v/c Ratio	0.52	0.51	0.79	0.27	0.59	0.32
Control Delay	25.4	1.4	66.4	10.3	40.6	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	1.4	66.4	10.3	40.6	4.0
LOS	C	A	E	B	D	A
Approach Delay	15.9			38.1	21.9	
Approach LOS	B			D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 97.5 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 26.0  
 Intersection Capacity Utilization 77.9%  
 Analysis Period (min) 15













Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑						↖	↗↘
Traffic Volume (veh/h)	0	680	447	580	589	0	0	0	0	336	0	350
Future Volume (veh/h)	0	680	447	580	589	0	0	0	0	336	0	350
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	680	447	580	589	0				336	0	350
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1404	626	651	2206	0				542	0	849
Arrive On Green	0.00	0.40	0.40	0.38	1.00	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	680	447	580	589	0				336	0	350
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	17.2	28.5	18.9	0.0	0.0				19.4	0.0	12.0
Cycle Q Clear(g_c), s	0.0	17.2	28.5	18.9	0.0	0.0				19.4	0.0	12.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1404	626	651	2206	0				542	0	849
V/C Ratio(X)	0.00	0.48	0.71	0.89	0.27	0.00				0.62	0.00	0.41
Avail Cap(c_a), veh/h	0	1404	626	907	2206	0				542	0	849
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.24	0.24	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.2	30.6	36.3	0.0	0.0				35.8	0.0	33.2
Incr Delay (d2), s/veh	0.0	0.3	1.7	7.4	0.3	0.0				5.3	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
%ile BackOfQ(50%),veh/ln	0.0	7.3	11.0	7.2	0.1	0.0				9.2	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.4	32.3	43.6	0.3	0.0				41.1	0.0	34.7
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		1127			1169						686	
Approach Delay, s/veh		29.4			21.8						37.8	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	27.1	51.9		41.0		79.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	31.5	38.5		36.5		74.5						
Max Q Clear Time (g_c+I1), s	20.9	30.5		21.4		2.0						
Green Ext Time (p_c), s	1.7	3.9		3.2		4.7						

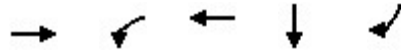
Intersection Summary

HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
1: Singleton Rd. & I-10 EB Ramps

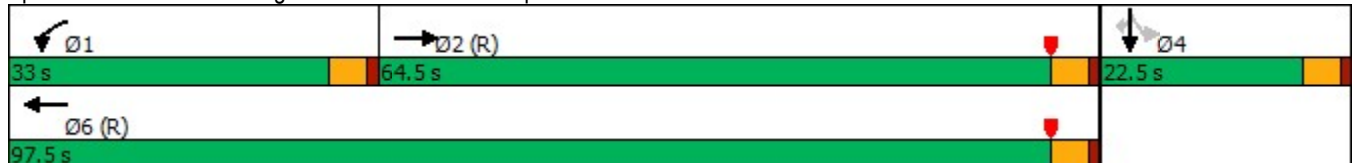


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↻	↻	↻	↻	↻
Traffic Volume (vph)	680	580	589	0	350
Future Volume (vph)	680	580	589	0	350
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	64.5	33.0	97.5	22.5	22.5
Total Split (%)	53.8%	27.5%	81.3%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	60.0	28.5	93.0	18.0	18.0
Actuated g/C Ratio	0.50	0.24	0.78	0.15	0.15
v/c Ratio	1.38	1.52	0.45	1.32	0.74
Control Delay	203.1	266.4	6.2	208.2	18.4
Queue Delay	0.0	0.0	1.6	0.0	0.0
Total Delay	203.1	266.4	7.7	208.2	18.4
LOS	F	F	A	F	B
Approach Delay	203.1		136.1	111.3	
Approach LOS	F		F	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.52  
 Intersection Signal Delay: 155.7  
 Intersection LOS: F  
 Intersection Capacity Utilization 160.0%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps





HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↔	↔
Traffic Volume (veh/h)	0	680	447	580	589	0	0	0	0	336	0	350
Future Volume (veh/h)	0	680	447	580	589	0	0	0	0	336	0	350
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	747	491	637	647	0				369	0	385
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	527	346	423	1450	0				267	0	238
Arrive On Green	0.00	0.50	0.50	0.47	1.00	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	1053	692	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1238	637	647	0				369	0	385
Grp Sat Flow(s),veh/h/ln	0	0	1746	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	60.0	28.5	0.0	0.0				18.0	0.0	18.0
Cycle Q Clear(g_c), s	0.0	0.0	60.0	28.5	0.0	0.0				18.0	0.0	18.0
Prop In Lane	0.00		0.40	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	873	423	1450	0				267	0	238
V/C Ratio(X)	0.00	0.00	1.42	1.51	0.45	0.00				1.38	0.00	1.62
Avail Cap(c_a), veh/h	0	0	873	423	1450	0				267	0	238
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	30.0	31.5	0.0	0.0				51.0	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.0	195.0	228.7	0.1	0.0				193.1	0.0	297.2
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	0.0	71.3	36.3	0.0	0.0				22.3	0.0	26.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	225.0	260.2	0.1	0.0				244.1	0.0	348.2
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1238			1284						754	
Approach Delay, s/veh		225.0			129.1						297.3	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	33.0	64.5		22.5		97.5						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	28.5	60.0		18.0		93.0						
Max Q Clear Time (g_c+I1), s	30.5	62.0		20.0		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		5.3						

Intersection Summary

HCM 6th Ctrl Delay	204.1
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

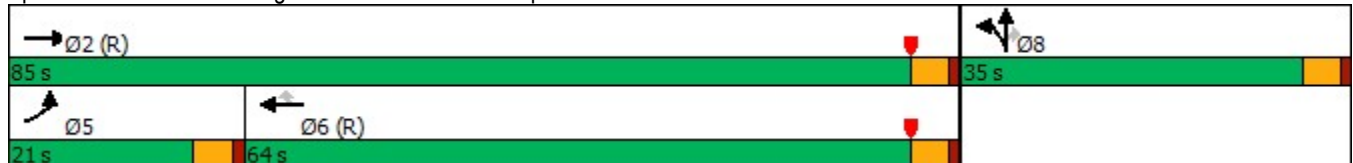
Timings  
2: Singleton Rd. & I-10 WB Ramps

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	411	754	859	692	309	0	349
Future Volume (vph)	411	754	859	692	309	0	349
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	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	21.0	85.0	64.0	64.0	35.0	35.0	35.0
Total Split (%)	17.5%	70.8%	53.3%	53.3%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	18.1	88.1	65.5	65.5	22.9	22.9	22.9
Actuated g/C Ratio	0.15	0.73	0.55	0.55	0.19	0.19	0.19
v/c Ratio	0.79	0.29	0.44	0.59	0.72	0.64	0.46
Control Delay	81.0	11.7	11.0	2.6	57.4	37.9	8.3
Queue Delay	0.0	0.0	0.2	0.3	0.0	0.0	0.0
Total Delay	81.0	11.7	11.2	2.8	57.4	37.9	8.3
LOS	F	B	B	A	E	D	A
Approach Delay		36.1	7.5			35.3	
Approach LOS		D	A			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 118.5 (99%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 22.8  
 Intersection Capacity Utilization 77.9%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	411	754	0	0	859	692	309	0	349	0	0	0
Future Volume (veh/h)	411	754	0	0	859	692	309	0	349	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	411	754	0	0	859	692	424	0	226			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	458	2680	0	0	2076	926	609	0	271			
Arrive On Green	0.26	1.00	0.00	0.00	1.00	1.00	0.17	0.00	0.17			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	411	754	0	0	859	692	424	0	226			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	13.8	0.0	0.0	0.0	0.0	0.0	13.4	0.0	16.5			
Cycle Q Clear(g_c), s	13.8	0.0	0.0	0.0	0.0	0.0	13.4	0.0	16.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	458	2680	0	0	2076	926	609	0	271			
V/C Ratio(X)	0.90	0.28	0.00	0.00	0.41	0.75	0.70	0.00	0.83			
Avail Cap(c_a), veh/h	475	2680	0	0	2076	926	905	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.84	0.84	0.00	0.00	0.67	0.67	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.3	0.0	0.0	0.0	0.0	0.0	46.8	0.0	48.1			
Incr Delay (d2), s/veh	16.8	0.2	0.0	0.0	0.4	3.7	1.5	0.0	9.3			
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	6.1	0.1	0.0	0.0	0.1	1.0	6.1	0.0	7.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	0.2	0.0	0.0	0.4	3.7	48.3	0.0	57.4			
LnGrp LOS	E	A	A	A	A	A	D	A	E			
Approach Vol, veh/h		1165			1551			650				
Approach Delay, s/veh		21.3			1.9			51.4				
Approach LOS		C			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		95.0			20.4	74.6		25.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		80.5			16.5	59.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0			15.8	2.0		18.5				
Green Ext Time (p_c), s		6.4			0.1	12.8		2.0				









Intersection Summary

HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

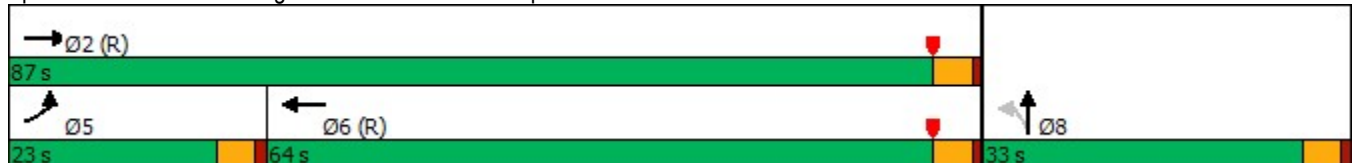
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	411	754	859	0
Future Volume (vph)	411	754	859	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	23.0	87.0	64.0	33.0
Total Split (%)	19.2%	72.5%	53.3%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	18.5	82.5	59.5	28.5
Actuated g/C Ratio	0.15	0.69	0.50	0.24
v/c Ratio	1.62	0.63	1.87	1.60
Control Delay	315.1	14.5	418.9	308.4
Queue Delay	0.0	3.2	0.0	0.0
Total Delay	315.1	17.7	418.9	308.4
LOS	F	B	F	F
Approach Delay		122.6	418.9	308.4
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.87  
 Intersection Signal Delay: 295.0  
 Intersection LOS: F  
 Intersection Capacity Utilization 160.0%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

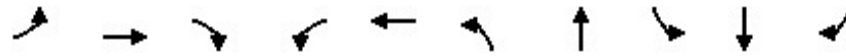


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	411	754	0	0	859	692	309	0	349	0	0	0
Future Volume (veh/h)	411	754	0	0	859	692	309	0	349	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
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	442	811	0	0	924	744	332	0	375			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	275	1286	0	0	476	383	186	0	211			
Arrive On Green	0.31	1.00	0.00	0.00	0.50	0.50	0.24	0.00	0.24			
Sat Flow, veh/h	1781	1870	0	0	959	772	785	0	887			
Grp Volume(v), veh/h	442	811	0	0	0	1668	707	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1731	1672	0	0			
Q Serve(g_s), s	18.5	0.0	0.0	0.0	0.0	59.5	28.5	0.0	0.0			
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	0.0	59.5	28.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.45	0.47		0.53			
Lane Grp Cap(c), veh/h	275	1286	0	0	0	858	397	0	0			
V/C Ratio(X)	1.61	0.63	0.00	0.00	0.00	1.94	1.78	0.00	0.00			
Avail Cap(c_a), veh/h	275	1286	0	0	0	858	397	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	0.0	0.0	0.0	0.0	30.3	45.8	0.0	0.0			
Incr Delay (d2), s/veh	275.8	0.2	0.0	0.0	0.0	428.6	361.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	27.9	0.1	0.0	0.0	0.0	125.9	51.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	317.3	0.2	0.0	0.0	0.0	458.9	407.2	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1253			1668			707				
Approach Delay, s/veh		112.1			458.9			407.2				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.0			23.0	64.0		33.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		82.5			18.5	59.5		28.5				
Max Q Clear Time (g_c+I1), s		2.0			20.5	61.5		30.5				
Green Ext Time (p_c), s		7.8			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					329.0							
HCM 6th LOS					F							

Timings

Oak Valley North Specific Plan

3: Calimesa Bl. & Singleton Rd.

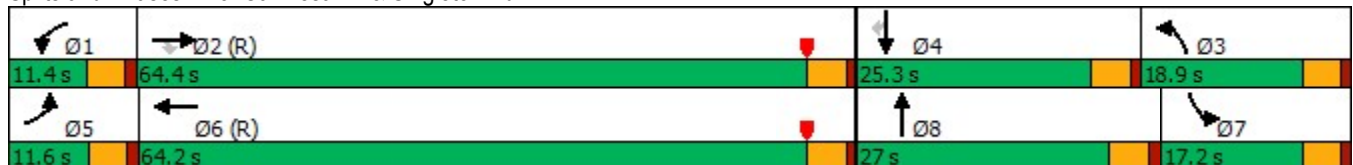


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↗	↖	↑↑	↖↗	↑↑	↖	↑↑	↗
Traffic Volume (vph)	188	832	183	42	1147	242	294	88	33	200
Future Volume (vph)	188	832	183	42	1147	242	294	88	33	200
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.6	64.4	64.4	11.4	64.2	18.9	27.0	17.2	25.3	25.3
Total Split (%)	9.7%	53.7%	53.7%	9.5%	53.5%	15.8%	22.5%	14.3%	21.1%	21.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	9.7	67.7	67.7	6.9	62.9	17.1	18.7	10.7	12.3	12.3
Actuated g/C Ratio	0.08	0.56	0.56	0.06	0.52	0.14	0.16	0.09	0.10	0.10
v/c Ratio	0.68	0.42	0.19	0.40	0.72	0.49	0.78	0.56	0.09	0.69
Control Delay	63.5	14.7	2.3	73.5	24.4	35.8	54.3	65.6	47.7	28.7
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	14.8	2.3	73.5	24.4	35.8	54.3	65.6	47.7	28.7
LOS	E	B	A	E	C	D	D	E	D	C
Approach Delay		20.5			25.8		48.0		40.7	
Approach LOS		C			C		D		D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 117.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 29.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 77.9%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	832	183	42	1147	236	242	294	167	88	33	200
Future Volume (veh/h)	188	832	183	42	1147	236	242	294	167	88	33	200
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	188	832	183	42	1147	236	242	294	167	88	33	200
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	2121	946	56	1715	351	328	352	195	111	451	201
Arrive On Green	0.12	1.00	1.00	0.06	1.00	1.00	0.10	0.16	0.16	0.06	0.13	0.13
Sat Flow, veh/h	3456	3554	1585	1781	3014	616	3456	2207	1221	1781	3554	1585
Grp Volume(v), veh/h	188	832	183	42	709	674	242	235	226	88	33	200
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1759	1728	1777	1651	1781	1777	1585
Q Serve(g_s), s	6.5	0.0	0.0	2.8	0.0	0.0	8.2	15.4	16.0	5.8	1.0	12.8
Cycle Q Clear(g_c), s	6.5	0.0	0.0	2.8	0.0	0.0	8.2	15.4	16.0	5.8	1.0	12.8
Prop In Lane	1.00		1.00	1.00		0.35	1.00		0.74	1.00		1.00
Lane Grp Cap(c), veh/h	204	2121	946	56	1064	1001	328	283	263	111	451	201
V/C Ratio(X)	0.92	0.39	0.19	0.75	0.67	0.67	0.74	0.83	0.86	0.79	0.07	1.00
Avail Cap(c_a), veh/h	204	2121	946	102	1064	1001	415	333	309	189	616	275
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	0.0	0.0	55.8	0.0	0.0	52.8	48.9	49.1	55.5	46.2	37.5
Incr Delay (d2), s/veh	39.8	0.5	0.4	18.1	3.3	3.6	5.1	14.1	18.5	11.8	0.1	46.8
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	3.8	0.2	0.1	1.5	1.0	1.0	3.8	7.9	7.9	3.0	0.4	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.4	0.5	0.4	73.8	3.3	3.6	57.9	63.0	67.6	67.3	46.2	84.3
LnGrp LOS	F	A	A	E	A	A	E	E	E	E	D	F
Approach Vol, veh/h		1203			1425			703			321	
Approach Delay, s/veh		14.9			5.5			62.7			75.7	
Approach LOS		B			A			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	76.1	15.9	19.7	11.6	72.8	12.0	23.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.9	59.9	14.4	20.8	7.1	59.7	12.7	22.5				
Max Q Clear Time (g_c+I1), s	4.8	2.0	10.2	14.8	8.5	2.0	7.8	18.0				
Green Ext Time (p_c), s	0.0	8.2	0.3	0.4	0.0	15.0	0.1	1.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									



Timings

4: Beckwith Av. & Singleton Rd.

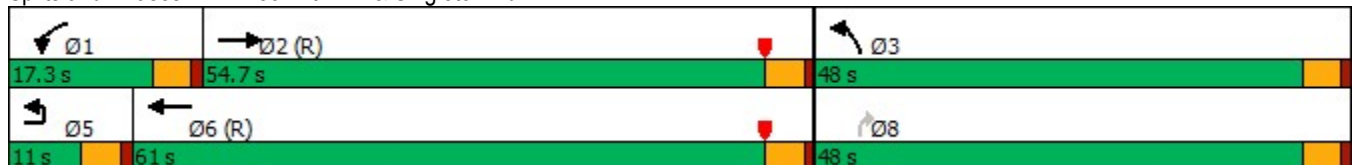
	→	↙	←	↘	↗	
Lane Group	EBT	WBL	WBT	NBL	NBR	Ø5
Lane Configurations	↑↑	↙	↑↑	↘	↗	
Traffic Volume (vph)	866	91	975	429	104	
Future Volume (vph)	866	91	975	429	104	
Turn Type	NA	Prot	NA	Prot	Perm	
Protected Phases	2	1	6	3		5
Permitted Phases					8	
Detector Phase	2	1	6	3	8	
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5	9.5
Total Split (s)	54.7	17.3	61.0	48.0	48.0	11.0
Total Split (%)	45.6%	14.4%	50.8%	40.0%	40.0%	9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	C-Max	None	C-Max	None	Max	None
Act Effct Green (s)	52.2	10.8	67.5	43.5	43.5	
Actuated g/C Ratio	0.44	0.09	0.56	0.36	0.36	
v/c Ratio	0.69	0.58	0.49	0.67	0.16	
Control Delay	19.9	57.0	13.5	38.4	5.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.9	57.0	13.5	38.4	5.5	
LOS	B	E	B	D	A	
Approach Delay	19.9		17.2	32.0		
Approach LOS	B		B	C		

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 108.1 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 21.3  
 Intersection Capacity Utilization 69.6%  
 Analysis Period (min) 15

Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 4: Beckwith Av. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↔		↕	↕↕	↕	↕
Traffic Volume (veh/h)	0	866	177	91	975	429	104
Future Volume (veh/h)	0	866	177	91	975	429	104
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		866	177	91	975	429	104
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1647	336	115	2353	468	417
Arrive On Green		1.00	1.00	0.06	0.66	0.26	0.26
Sat Flow, veh/h		3032	601	1781	3647	1781	1585
Grp Volume(v), veh/h		524	519	91	975	429	104
Grp Sat Flow(s),veh/h/ln		1777	1762	1781	1777	1781	1585
Q Serve(g_s), s		0.0	0.0	6.0	15.3	28.1	6.2
Cycle Q Clear(g_c), s		0.0	0.0	6.0	15.3	28.1	6.2
Prop In Lane			0.34	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		996	987	115	2353	468	417
V/C Ratio(X)		0.53	0.53	0.79	0.41	0.92	0.25
Avail Cap(c_a), veh/h		996	987	190	2353	646	575
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	55.4	9.4	43.0	34.9
Incr Delay (d2), s/veh		2.0	2.0	11.6	0.5	14.4	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.5	0.5	3.1	5.8	14.0	2.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		2.0	2.0	67.0	10.0	57.4	35.2
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		1043			1066	533	
Approach Delay, s/veh		2.0			14.8	53.1	
Approach LOS		A			B	D	
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.2	71.7				84.0	36.0
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	12.8	50.2				56.5	43.5
Max Q Clear Time (g_c+I1), s	8.0	2.0				17.3	30.1
Green Ext Time (p_c), s	0.1	9.0				8.7	1.5

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

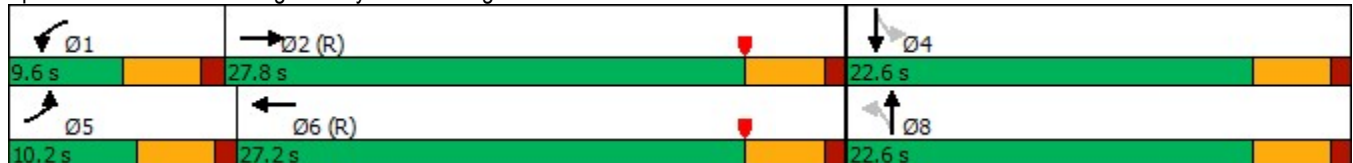


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↷	↶	↷	↶	↷	↶	↷
Traffic Volume (vph)	42	894	13	844	91	13	25	5
Future Volume (vph)	42	894	13	844	91	13	25	5
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	10.2	27.8	9.6	27.2	22.6	22.6	22.6	22.6
Total Split (%)	17.0%	46.3%	16.0%	45.3%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.7	31.0	5.1	28.8	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.10	0.52	0.08	0.48	0.30	0.30	0.30	0.30
v/c Ratio	0.25	0.51	0.09	0.51	0.24	0.07	0.06	0.24
Control Delay	25.1	20.8	26.8	13.2	17.9	9.3	15.5	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	20.8	26.8	13.2	17.9	9.3	15.5	5.1
LOS	C	C	C	B	B	A	B	A
Approach Delay		21.0		13.4		15.4		6.7
Approach LOS		C		B		B		A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 16.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 61.6%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

Oak Valley North Specific Plan

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	894	34	13	844	15	91	13	24	25	5	130
Future Volume (veh/h)	42	894	34	13	844	15	91	13	24	25	5	130
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	42	894	34	13	844	15	91	13	24	25	5	130
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1596	61	29	1541	27	417	178	328	512	18	463
Arrive On Green	0.04	0.46	0.46	0.02	0.43	0.43	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3491	133	1781	3572	63	1254	588	1086	1371	59	1535
Grp Volume(v), veh/h	42	455	473	13	420	439	91	0	37	25	0	135
Grp Sat Flow(s),veh/h/ln	1781	1777	1846	1781	1777	1859	1254	0	1675	1371	0	1594
Q Serve(g_s), s	1.4	11.2	11.2	0.4	10.6	10.6	3.6	0.0	0.9	0.8	0.0	3.9
Cycle Q Clear(g_c), s	1.4	11.2	11.2	0.4	10.6	10.6	7.5	0.0	0.9	1.7	0.0	3.9
Prop In Lane	1.00		0.07	1.00		0.03	1.00		0.65	1.00		0.96
Lane Grp Cap(c), veh/h	75	812	844	29	766	802	417	0	505	512	0	481
V/C Ratio(X)	0.56	0.56	0.56	0.45	0.55	0.55	0.22	0.00	0.07	0.05	0.00	0.28
Avail Cap(c_a), veh/h	169	812	844	151	766	802	417	0	505	512	0	481
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	28.2	11.9	11.9	29.2	12.7	12.7	18.8	0.0	15.0	15.6	0.0	16.0
Incr Delay (d2), s/veh	6.5	2.8	2.7	10.5	2.8	2.7	1.2	0.0	0.3	0.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.4	4.5	0.3	4.2	4.4	1.1	0.0	0.4	0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	14.7	14.6	39.8	15.5	15.4	20.0	0.0	15.2	15.8	0.0	17.4
LnGrp LOS	C	B	B	D	B	B	C	A	B	B	A	B
Approach Vol, veh/h		970			872			128				160
Approach Delay, s/veh		15.5			15.8			18.6				17.2
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	31.9		22.6	7.0	30.4		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.7	22.7		18.1				
Max Q Clear Time (g_c+I1), s	2.4	13.2		5.9	3.4	12.6		9.5				
Green Ext Time (p_c), s	0.0	4.2		0.6	0.0	3.9		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				15.9								
HCM 6th LOS				B								

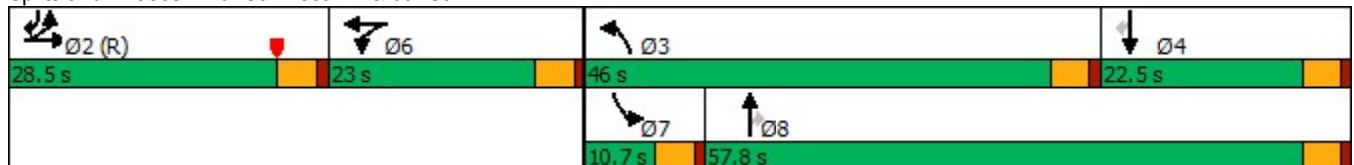
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	265	411	38	472	1110	540	234	28	172	497
Future Volume (vph)	265	411	38	472	1110	540	234	28	172	497
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	28.5	28.5	23.0	23.0	46.0	57.8	57.8	10.7	22.5	28.5
Total Split (%)	23.8%	23.8%	19.2%	19.2%	38.3%	48.2%	48.2%	8.9%	18.8%	23.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	24.0	24.0	18.2	18.2	40.5	57.9	57.9	6.1	19.4	47.9
Actuated g/C Ratio	0.20	0.20	0.15	0.15	0.34	0.48	0.48	0.05	0.16	0.40
v/c Ratio	0.67	0.75	0.14	0.88	0.93	0.60	0.29	0.31	0.57	0.72
Control Delay	54.9	50.1	45.5	67.3	50.1	23.7	10.9	64.4	55.6	31.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	54.9	50.1	45.5	67.3	50.1	24.1	10.9	64.4	55.6	31.8
LOS	D	D	D	E	D	C	B	E	E	C
Approach Delay		51.6		65.8		37.8			39.0	
Approach LOS		D		E		D			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 89.5 (75%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 44.6  
 Intersection Capacity Utilization 87.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	411	120	38	472	23	1110	540	234	28	172	497
Future Volume (veh/h)	265	411	120	38	472	23	1110	540	234	28	172	497
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	265	411	120	38	472	23	1110	540	234	28	172	497
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	389	608	176	267	531	26	1182	854	724	45	281	583
Arrive On Green	0.22	0.22	0.22	0.15	0.15	0.15	0.33	0.46	0.46	0.03	0.15	0.15
Sat Flow, veh/h	1781	2790	806	1781	3538	172	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	265	274	257	38	249	246	1110	540	234	28	172	497
Grp Sat Flow(s),veh/h/ln	1781	1870	1725	1781	1870	1839	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	16.4	16.1	16.4	2.2	15.7	15.7	36.3	26.5	11.3	1.9	10.3	18.0
Cycle Q Clear(g_c), s	16.4	16.1	16.4	2.2	15.7	15.7	36.3	26.5	11.3	1.9	10.3	18.0
Prop In Lane	1.00		0.47	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	408	376	267	281	276	1182	854	724	45	281	583
V/C Ratio(X)	0.68	0.67	0.68	0.14	0.89	0.89	0.94	0.63	0.32	0.62	0.61	0.85
Avail Cap(c_a), veh/h	389	408	376	275	288	284	1232	854	724	92	281	583
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(l)	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	43.1	43.0	43.1	44.3	50.0	50.0	38.9	24.9	20.8	57.9	47.7	29.6
Incr Delay (d2), s/veh	9.3	8.5	9.6	0.2	26.3	27.2	13.3	3.5	1.2	13.2	9.6	14.6
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	8.2	8.4	8.0	1.0	9.4	9.3	17.6	12.2	4.4	1.0	5.5	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	51.5	52.7	44.5	76.3	77.3	52.2	28.5	22.0	71.1	57.4	44.2
LnGrp LOS	D	D	D	D	E	E	D	C	C	E	E	D
Approach Vol, veh/h		796			533			1884			697	
Approach Delay, s/veh		52.2			74.5			41.6			48.5	
Approach LOS		D			E			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.7	44.3	22.5		22.5	7.5	59.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.0	41.5	18.0		18.5	6.2	53.3				
Max Q Clear Time (g_c+I1), s		18.4	38.3	20.0		17.7	3.9	28.5				
Green Ext Time (p_c), s		2.0	1.5	0.0		0.3	0.0	4.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.5									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

Oak Valley North Specific Plan

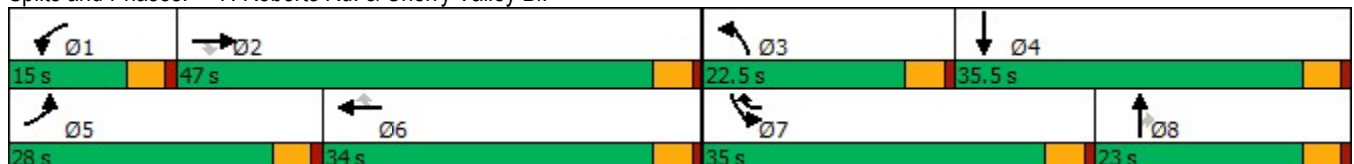
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	422	591	25	149	517	409	13	28	141	579	25
Future Volume (vph)	422	591	25	149	517	409	13	28	141	579	25
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	47.0	47.0	15.0	34.0	35.0	22.5	23.0	23.0	35.0	35.5
Total Split (%)	23.3%	39.2%	39.2%	12.5%	28.3%	29.2%	18.8%	19.2%	19.2%	29.2%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	18.1	30.0	30.0	9.4	21.2	56.5	18.1	18.6	18.6	30.7	31.2
Actuated g/C Ratio	0.17	0.28	0.28	0.09	0.20	0.53	0.17	0.17	0.17	0.29	0.29
v/c Ratio	0.73	0.60	0.05	0.50	0.74	0.42	0.04	0.09	0.33	0.59	0.50
Control Delay	50.2	35.5	0.2	53.9	47.1	5.7	41.5	41.2	5.2	36.8	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	35.5	0.2	53.9	47.1	5.7	41.5	41.2	5.2	36.8	7.8
LOS	D	D	A	D	D	A	D	D	A	D	A
Approach Delay		40.6			32.3			13.3			26.0
Approach LOS		D			C			B			C

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 106.8  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 32.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 60.8%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	591	25	149	517	409	13	28	141	579	25	319
Future Volume (veh/h)	422	591	25	149	517	409	13	28	141	579	25	319
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	422	591	25	149	517	409	13	28	141	579	25	319
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	1092	487	213	787	807	302	326	276	993	34	434
Arrive On Green	0.15	0.31	0.31	0.06	0.22	0.22	0.17	0.17	0.17	0.29	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	116	1486
Grp Volume(v), veh/h	422	591	25	149	517	409	13	28	141	579	0	344
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1603
Q Serve(g_s), s	12.6	14.7	1.2	4.5	14.1	18.1	0.6	1.3	8.6	15.2	0.0	20.5
Cycle Q Clear(g_c), s	12.6	14.7	1.2	4.5	14.1	18.1	0.6	1.3	8.6	15.2	0.0	20.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	509	1092	487	213	787	807	302	326	276	993	0	468
V/C Ratio(X)	0.83	0.54	0.05	0.70	0.66	0.51	0.04	0.09	0.51	0.58	0.00	0.74
Avail Cap(c_a), veh/h	765	1423	635	342	987	896	302	326	276	993	0	468
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	44.0	30.6	25.9	48.8	37.6	17.3	36.9	36.7	39.7	32.4	0.0	33.9
Incr Delay (d2), s/veh	4.8	0.4	0.0	4.1	1.1	0.5	0.3	0.5	6.6	2.5	0.0	9.9
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	5.6	6.2	0.5	2.0	6.1	6.5	0.3	0.7	3.8	6.6	0.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	31.0	25.9	52.9	38.7	17.8	37.1	37.3	46.3	34.9	0.0	43.7
LnGrp LOS	D	C	C	D	D	B	D	D	D	C	A	D
Approach Vol, veh/h		1038			1075			182			923	
Approach Delay, s/veh		38.1			32.7			44.3			38.2	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	37.1	22.5	35.5	20.1	28.0	35.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	42.5	18.0	31.0	23.5	29.5	30.5	18.5				
Max Q Clear Time (g_c+I1), s	6.5	16.7	2.6	22.5	14.6	20.1	17.2	10.6				
Green Ext Time (p_c), s	0.1	4.2	0.0	1.4	1.0	3.4	1.9	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			36.7									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

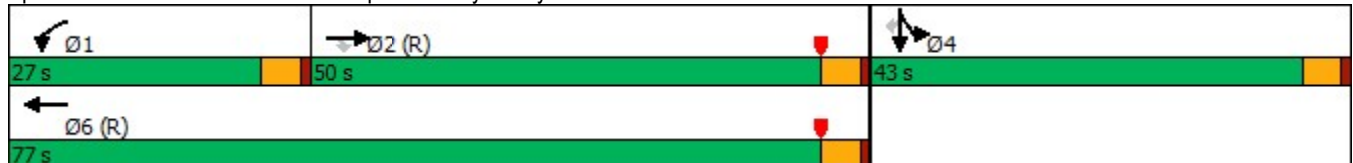


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↓	↔
Traffic Volume (vph)	1094	219	506	580	0	496
Future Volume (vph)	1094	219	506	580	0	496
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	50.0	50.0	27.0	77.0	43.0	43.0
Total Split (%)	41.7%	41.7%	22.5%	64.2%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	46.8	46.8	21.2	72.5	38.5	38.5
Actuated g/C Ratio	0.39	0.39	0.18	0.60	0.32	0.32
v/c Ratio	0.79	0.31	0.84	0.27	0.78	0.40
Control Delay	37.8	12.0	60.5	22.9	47.7	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	12.0	60.5	22.9	47.7	3.6
LOS	D	B	E	C	D	A
Approach Delay	33.5			40.4	24.3	
Approach LOS	C			D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 105.5 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 33.1  
 Intersection Capacity Utilization 85.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E













Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.





















HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖↗	↑↑						↖	↖↗
Traffic Volume (veh/h)	0	1094	219	506	580	0	0	0	0	440	0	496
Future Volume (veh/h)	0	1094	219	506	580	0	0	0	0	440	0	496
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	1094	219	506	580	0				440	0	496
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1426	636	571	2147	0				571	0	895
Arrive On Green	0.00	0.40	0.40	0.17	0.60	0.00				0.32	0.00	0.32
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1094	219	506	580	0				440	0	496
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	32.0	11.5	17.2	9.3	0.0				26.7	0.0	17.6
Cycle Q Clear(g_c), s	0.0	32.0	11.5	17.2	9.3	0.0				26.7	0.0	17.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1426	636	571	2147	0				571	0	895
V/C Ratio(X)	0.00	0.77	0.34	0.89	0.27	0.00				0.77	0.00	0.55
Avail Cap(c_a), veh/h	0	1426	636	648	2147	0				571	0	895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.80	0.80	0.54	0.54	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.1	25.0	49.0	11.2	0.0				36.8	0.0	33.7
Incr Delay (d2), s/veh	0.0	3.2	1.2	7.5	0.2	0.0				9.6	0.0	2.5
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	0.0	13.9	4.5	7.9	3.5	0.0				13.1	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.3	26.1	56.5	11.4	0.0				46.4	0.0	36.1
LnGrp LOS	A	C	C	E	B	A				D	A	D
Approach Vol, veh/h		1313			1086						936	
Approach Delay, s/veh		32.9			32.4						41.0	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.3	52.7		43.0		77.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.5	45.5		38.5		72.5						
Max Q Clear Time (g_c+I1), s	19.2	34.0		28.7		11.3						
Green Ext Time (p_c), s	0.7	6.2		3.6		4.4						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				35.0								
HCM 6th LOS				D								

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

						
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	 	 	 		 	
Traffic Volume (vph)	778	756	881	652	12	544
Future Volume (vph)	778	756	881	652	12	544
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	36.4	78.0	41.6	41.6	42.0	42.0
Total Split (%)	30.3%	65.0%	34.7%	34.7%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	None	None	Max	Max
Act Effct Green (s)	30.3	73.5	38.7	38.7	37.5	37.5
Actuated g/C Ratio	0.25	0.61	0.32	0.32	0.31	0.31
v/c Ratio	0.90	0.35	0.77	0.66	0.39	0.85
Control Delay	79.9	21.0	26.4	3.3	34.9	36.4
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	79.9	21.0	26.4	3.4	34.9	36.4
LOS	E	C	C	A	C	D
Approach Delay		50.9	16.7		35.9	
Approach LOS		D	B		D	

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 34.2  
 Intersection Capacity Utilization 85.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.

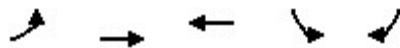


HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 							
Traffic Volume (veh/h)	778	756	0	0	881	652	204	12	544	0	0	0
Future Volume (veh/h)	778	756	0	0	881	652	204	12	544	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	778	756	0	0	881	652	204	12	544			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	837	2177	0	0	1182	527	527	31	495			
Arrive On Green	0.40	1.00	0.00	0.00	0.67	0.67	0.31	0.31	0.31			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1687	99	1585			
Grp Volume(v), veh/h	778	756	0	0	881	652	216	0	544			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1786	0	1585			
Q Serve(g_s), s	25.8	0.0	0.0	0.0	19.7	39.9	11.4	0.0	37.5			
Cycle Q Clear(g_c), s	25.8	0.0	0.0	0.0	19.7	39.9	11.4	0.0	37.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	837	2177	0	0	1182	527	558	0	495			
V/C Ratio(X)	0.93	0.35	0.00	0.00	0.75	1.24	0.39	0.00	1.10			
Avail Cap(c_a), veh/h	919	2177	0	0	1182	527	558	0	495			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.51	0.51	0.00	0.00	0.51	0.51	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.7	0.0	0.0	0.0	16.7	20.1	32.3	0.0	41.3			
Incr Delay (d2), s/veh	8.6	0.2	0.0	0.0	1.3	114.8	2.0	0.0	69.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.1	0.1	0.0	0.0	5.0	24.6	5.2	0.0	24.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	0.2	0.0	0.0	18.0	134.8	34.3	0.0	111.2			
LnGrp LOS	D	A	A	A	B	F	C	A	F			
Approach Vol, veh/h		1534			1533			760				
Approach Delay, s/veh		22.1			67.7			89.3				
Approach LOS		C			E			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		78.0			33.6	44.4		42.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		73.5			31.9	37.1		37.5				
Max Q Clear Time (g_c+I1), s		2.0			27.8	41.9		39.5				
Green Ext Time (p_c), s		6.1			1.3	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					53.7							
HCM 6th LOS					D							
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

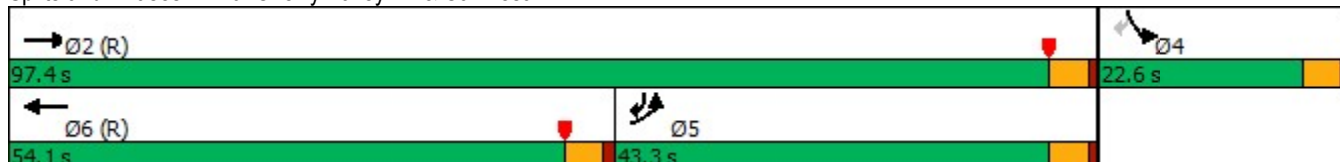


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑↑	↑↑↔	↖	↗
Traffic Volume (vph)	472	829	1099	101	434
Future Volume (vph)	472	829	1099	101	434
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	43.3	97.4	54.1	22.6	43.3
Total Split (%)	36.1%	81.2%	45.1%	18.8%	36.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	38.8	92.9	49.6	18.1	61.4
Actuated g/C Ratio	0.32	0.77	0.41	0.15	0.51
v/c Ratio	0.83	0.30	0.89	0.38	0.53
Control Delay	54.4	4.0	41.0	52.6	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	4.0	41.0	52.6	22.2
LOS	D	A	D	D	C
Approach Delay		22.3	41.0	27.9	
Approach LOS		C	D	C	

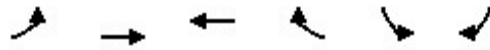
Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 109.1 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 31.0  
 Intersection Capacity Utilization 79.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	472	829	1099	182	101	434
Future Volume (veh/h)	472	829	1099	182	101	434
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	472	829	1099	182	101	434
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	576	2751	1262	208	269	752
Arrive On Green	0.65	1.00	0.41	0.41	0.15	0.15
Sat Flow, veh/h	1781	3647	3146	504	1781	1585
Grp Volume(v), veh/h	472	829	638	643	101	434
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1780	1781	1585
Q Serve(g_s), s	23.9	0.0	39.5	39.8	6.1	0.0
Cycle Q Clear(g_c), s	23.9	0.0	39.5	39.8	6.1	0.0
Prop In Lane	1.00			0.28	1.00	1.00
Lane Grp Cap(c), veh/h	576	2751	734	736	269	752
V/C Ratio(X)	0.82	0.30	0.87	0.87	0.38	0.58
Avail Cap(c_a), veh/h	576	2751	734	736	269	752
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.81	0.81	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	32.2	32.3	45.9	22.8
Incr Delay (d2), s/veh	7.5	0.2	13.3	13.6	4.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.1	19.1	19.3	3.0	15.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.1	0.2	45.5	46.0	49.8	26.1
LnGrp LOS	C	A	D	D	D	C
Approach Vol, veh/h		1301	1281		535	
Approach Delay, s/veh		9.6	45.7		30.6	
Approach LOS		A	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	43.3	54.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	38.8	49.6
Max Q Clear Time (g_c+I1), s		2.0		8.1	25.9	41.8
Green Ext Time (p_c), s		6.9		1.4	1.3	4.8
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			28.1			
HCM 6th LOS			C			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp

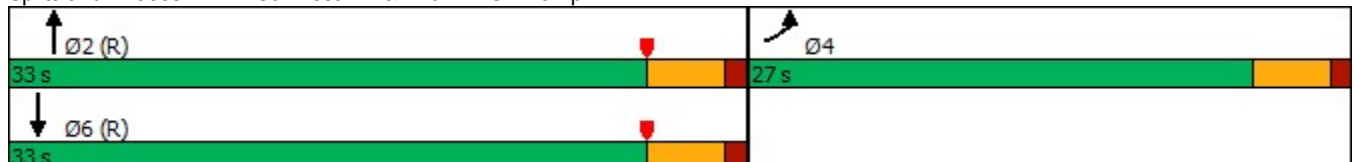
	↖	↑	↓
Lane Group	EBL	NBT	SBT
Lane Configurations	↖	↑↑	↑
Traffic Volume (vph)	585	1476	277
Future Volume (vph)	585	1476	277
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	27.0	33.0	33.0
Total Split (%)	45.0%	55.0%	55.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	21.8	29.2	29.2
Actuated g/C Ratio	0.36	0.49	0.49
v/c Ratio	0.91	0.81	0.31
Control Delay	40.2	18.3	14.7
Queue Delay	0.0	0.0	0.0
Total Delay	40.2	18.3	14.7
LOS	D	B	B
Approach Delay	40.2	18.3	14.7
Approach LOS	D	B	B

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 23.4  
 Intersection Capacity Utilization 80.9%  
 Analysis Period (min) 15

Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	585	3	0	1476	277	0
Future Volume (veh/h)	585	3	0	1476	277	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	585	3	0	1476	277	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	632	3	0	1843	922	0
Arrive On Green	0.36	0.36	0.00	0.49	0.49	0.00
Sat Flow, veh/h	1768	9	0	3741	1870	0
Grp Volume(v), veh/h	589	0	0	1476	277	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1870	1870	0
Q Serve(g_s), s	19.1	0.0	0.0	19.8	5.3	0.0
Cycle Q Clear(g_c), s	19.1	0.0	0.0	19.8	5.3	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	636	0	0	1843	922	0
V/C Ratio(X)	0.93	0.00	0.00	0.80	0.30	0.00
Avail Cap(c_a), veh/h	668	0	0	1843	922	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	12.8	9.1	0.0
Incr Delay (d2), s/veh	18.6	0.0	0.0	3.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	0.0	0.0	7.5	2.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.1	0.0	0.0	16.5	9.9	0.0
LnGrp LOS	D	A	A	B	A	A
Approach Vol, veh/h	589			1476	277	
Approach Delay, s/veh	37.1			16.5	9.9	
Approach LOS	D			B	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		34.1		25.9		34.1
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		28.5		22.5		28.5
Max Q Clear Time (g_c+I1), s		21.8		21.1		7.3
Green Ext Time (p_c), s		4.9		0.4		1.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			20.9			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

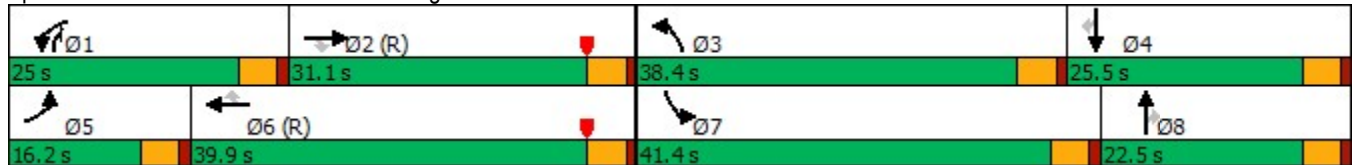
Oak Valley North Specific Plan

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	754	118	311	631	232	419	252	571	531	245	158
Future Volume (vph)	76	754	118	311	631	232	419	252	571	531	245	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	16.2	31.1	31.1	25.0	39.9	39.9	38.4	22.5	25.0	41.4	25.5	25.5
Total Split (%)	13.5%	25.9%	25.9%	20.8%	33.3%	33.3%	32.0%	18.8%	20.8%	34.5%	21.3%	21.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	9.9	26.8	26.8	24.6	43.8	43.8	31.5	13.6	42.8	36.9	19.1	19.1
Actuated g/C Ratio	0.08	0.22	0.22	0.20	0.36	0.36	0.26	0.11	0.36	0.31	0.16	0.16
v/c Ratio	0.52	0.91	0.26	0.43	0.46	0.32	0.90	0.60	0.94	0.98	0.41	0.41
Control Delay	65.2	61.0	5.9	45.4	47.8	19.6	66.4	56.2	58.1	74.8	48.0	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	61.0	5.9	45.4	47.8	19.6	66.4	56.2	58.1	74.8	48.0	10.1
LOS	E	E	A	D	D	B	E	E	E	E	D	B
Approach Delay		54.5			41.6			60.5			56.8	
Approach LOS		D			D			E			E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 49 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 53.2  
 Intersection LOS: D  
 Intersection Capacity Utilization 96.9%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

Oak Valley North Specific Plan

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	754	118	311	631	232	419	252	571	531	245	158
Future Volume (veh/h)	76	754	118	311	631	232	419	252	571	531	245	158
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	76	754	59	311	631	117	419	252	291	531	245	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1060	449	389	1264	536	448	561	411	548	770	326
Arrive On Green	0.05	0.28	0.28	0.04	0.11	0.11	0.25	0.15	0.15	0.31	0.21	0.21
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	76	754	59	311	631	117	419	252	291	531	245	103
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.1	21.7	3.3	10.4	19.0	8.1	27.6	7.4	18.0	35.3	6.7	6.6
Cycle Q Clear(g_c), s	5.1	21.7	3.3	10.4	19.0	8.1	27.6	7.4	18.0	35.3	6.7	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1060	449	389	1264	536	448	561	411	548	770	326
V/C Ratio(X)	0.78	0.71	0.13	0.80	0.50	0.22	0.93	0.45	0.71	0.97	0.32	0.32
Avail Cap(c_a), veh/h	174	1060	449	609	1264	536	503	561	411	548	770	326
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	38.6	32.0	56.5	43.8	38.9	43.9	46.5	40.3	41.0	40.5	40.5
Incr Delay (d2), s/veh	12.7	4.1	0.6	4.0	1.4	0.9	23.5	0.6	5.6	30.7	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.5	1.4	5.2	9.8	3.5	15.0	3.5	8.4	19.9	3.1	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	42.6	32.6	60.6	45.1	39.8	67.4	47.0	45.9	71.7	40.7	41.0
LnGrp LOS	E	D	C	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		889			1059			962			879	
Approach Delay, s/veh		44.2			49.1			55.6			59.5	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	38.5	34.7	29.2	11.0	45.1	41.4	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.5	26.6	33.9	21.0	11.7	35.4	36.9	18.0				
Max Q Clear Time (g_c+I1), s	12.4	23.7	29.6	8.7	7.1	21.0	37.3	20.0				
Green Ext Time (p_c), s	0.7	1.5	0.6	1.5	0.1	4.1	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			52.0									
HCM 6th LOS			D									

Timings  
1: Singleton Rd. & I-10 EB Ramps

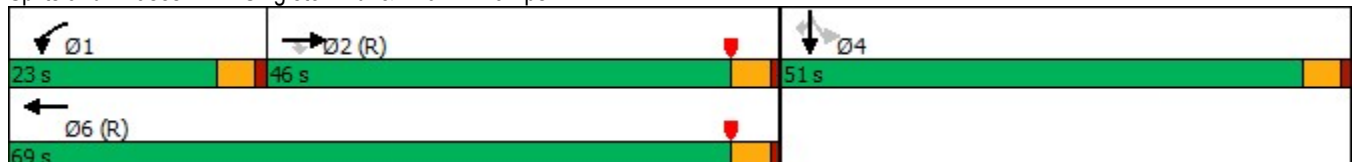
	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↓	↘↙
Traffic Volume (vph)	1114	652	483	1144	0	644
Future Volume (vph)	1114	652	483	1144	0	644
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	46.0	46.0	23.0	69.0	51.0	51.0
Total Split (%)	38.3%	38.3%	19.2%	57.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	41.6	41.6	18.4	64.5	46.5	46.5
Actuated g/C Ratio	0.35	0.35	0.15	0.54	0.39	0.39
v/c Ratio	0.91	0.67	0.92	0.60	0.94	0.56
Control Delay	46.3	8.8	91.7	27.7	57.2	25.6
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay	46.3	8.8	91.7	28.1	57.2	25.6
LOS	D	A	F	C	E	C
Approach Delay	32.5			47.0	41.7	
Approach LOS	C			D	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 101.5 (85%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 40.1  
 Intersection Capacity Utilization 102.8%  
 Analysis Period (min) 15













Intersection LOS: D  
 ICU Level of Service G

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

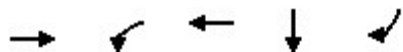


HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑						↖	↘↗
Traffic Volume (veh/h)	0	1114	652	483	1144	0	0	0	0	675	0	644
Future Volume (veh/h)	0	1114	652	483	1144	0	0	0	0	675	0	644
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	1114	652	483	1144	0				675	0	644
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1236	551	526	1910	0				690	0	1081
Arrive On Green	0.00	0.35	0.35	0.30	1.00	0.00				0.39	0.00	0.39
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1114	652	483	1144	0				675	0	644
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	35.7	41.7	16.2	0.0	0.0				44.8	0.0	22.1
Cycle Q Clear(g_c), s	0.0	35.7	41.7	16.2	0.0	0.0				44.8	0.0	22.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1236	551	526	1910	0				690	0	1081
V/C Ratio(X)	0.00	0.90	1.18	0.92	0.60	0.00				0.98	0.00	0.60
Avail Cap(c_a), veh/h	0	1236	551	533	1910	0				690	0	1081
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.50	0.50	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.2	39.1	41.0	0.0	0.0				36.2	0.0	29.3
Incr Delay (d2), s/veh	0.0	1.2	84.1	12.3	0.7	0.0				29.3	0.0	2.4
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	15.5	28.8	6.7	0.2	0.0				24.7	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	38.3	123.2	53.3	0.7	0.0				65.5	0.0	31.7
LnGrp LOS	A	D	F	D	A	A				E	A	C
Approach Vol, veh/h		1766			1627						1319	
Approach Delay, s/veh		69.7			16.3						49.0	
Approach LOS		E			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.8	46.2		51.0		69.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	18.5	41.5		46.5		64.5						
Max Q Clear Time (g_c+I1), s	18.2	43.7		46.8		2.0						
Green Ext Time (p_c), s	0.1	0.0		0.0		11.8						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			45.5									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↗	↖	↗	↖	↗
Traffic Volume (vph)	1114	483	1144	0	644
Future Volume (vph)	1114	483	1144	0	644
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	67.0	23.0	90.0	30.0	30.0
Total Split (%)	55.8%	19.2%	75.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	62.5	18.5	85.5	25.5	25.5
Actuated g/C Ratio	0.52	0.15	0.71	0.21	0.21
v/c Ratio	2.07	1.95	0.95	1.88	1.69
Control Delay	504.8	455.1	20.4	433.1	347.5
Queue Delay	1.7	0.0	45.1	0.7	0.0
Total Delay	506.5	455.1	65.5	433.8	347.5
LOS	F	F	E	F	F
Approach Delay	506.5		181.2	391.6	
Approach LOS	F		F	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.07  
 Intersection Signal Delay: 362.0  
 Intersection LOS: F  
 Intersection Capacity Utilization 297.9%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻	↻
Traffic Volume (veh/h)	0	1114	652	483	1144	0	0	0	0	675	0	644
Future Volume (veh/h)	0	1114	652	483	1144	0	0	0	0	675	0	644
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	1224	716	531	1257	0				742	0	708
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	576	337	275	1333	0				379	0	337
Arrive On Green	0.00	0.52	0.52	0.31	1.00	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	1107	647	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1940	531	1257	0				742	0	708
Grp Sat Flow(s),veh/h/ln	0	0	1754	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	62.5	18.5	0.0	0.0				25.5	0.0	25.5
Cycle Q Clear(g_c), s	0.0	0.0	62.5	18.5	0.0	0.0				25.5	0.0	25.5
Prop In Lane	0.00		0.37	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	913	275	1333	0				379	0	337
V/C Ratio(X)	0.00	0.00	2.12	1.93	0.94	0.00				1.96	0.00	2.10
Avail Cap(c_a), veh/h	0	0	913	275	1333	0				379	0	337
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	28.8	41.5	0.0	0.0				47.3	0.0	47.3
Incr Delay (d2), s/veh	0.0	0.0	509.4	421.3	1.9	0.0				441.6	0.0	505.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	154.2	39.0	0.7	0.0				57.7	0.0	57.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	538.2	462.8	1.9	0.0				488.9	0.0	553.1
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1940			1788						1450	
Approach Delay, s/veh		538.2			138.8						520.2	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.0	67.0		30.0		90.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	18.5	62.5		25.5		85.5						
Max Q Clear Time (g_c+I1), s	20.5	64.5		27.5		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		22.5						

Intersection Summary

HCM 6th Ctrl Delay	395.2
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

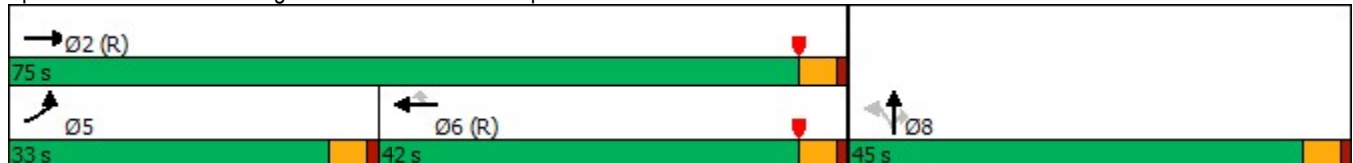
Timings  
2: Singleton Rd. & I-10 WB Ramps

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	679	1110	910	688	717	0	645
Future Volume (vph)	679	1110	910	688	717	0	645
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	6			8	
Permitted Phases				6	8		8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	33.0	75.0	42.0	42.0	45.0	45.0	45.0
Total Split (%)	27.5%	62.5%	35.0%	35.0%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	27.0	72.1	40.6	40.6	38.9	38.9	38.9
Actuated g/C Ratio	0.22	0.60	0.34	0.34	0.32	0.32	0.32
v/c Ratio	0.88	0.52	0.76	0.71	0.87	0.86	0.79
Control Delay	70.0	19.7	32.2	7.3	55.5	49.6	40.3
Queue Delay	0.0	0.4	0.1	1.1	0.0	0.3	0.3
Total Delay	70.0	20.2	32.3	8.3	55.5	49.9	40.6
LOS	E	C	C	A	E	D	D
Approach Delay		39.1	22.0			48.9	
Approach LOS		D	C			D	

Intersection Summary
























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 97.5 (81%), 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: 36.1  
 Intersection LOS: D  
 Intersection Capacity Utilization 102.8%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	679	1110	0	0	910	688	717	0	645	0	0	0
Future Volume (veh/h)	679	1110	0	0	910	688	717	0	645	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	679	1110	0	0	910	688	918	0	430			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	734	2207	0	0	1319	588	1083	0	482			
Arrive On Green	0.42	1.00	0.00	0.00	0.74	0.74	0.30	0.00	0.30			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	679	1110	0	0	910	688	918	0	430			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	22.3	0.0	0.0	0.0	16.2	44.5	29.0	0.0	31.1			
Cycle Q Clear(g_c), s	22.3	0.0	0.0	0.0	16.2	44.5	29.0	0.0	31.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	734	2207	0	0	1319	588	1083	0	482			
V/C Ratio(X)	0.93	0.50	0.00	0.00	0.69	1.17	0.85	0.00	0.89			
Avail Cap(c_a), veh/h	821	2207	0	0	1319	588	1202	0	535			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.29	0.29	0.00	0.00	0.66	0.66	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.6	0.0	0.0	0.0	11.8	15.5	39.2	0.0	39.9			
Incr Delay (d2), s/veh	5.5	0.2	0.0	0.0	2.0	88.2	5.4	0.0	16.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.1	0.1	0.0	0.0	4.1	20.8	13.4	0.0	14.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.2	0.0	0.0	13.8	103.7	44.6	0.0	56.0			
LnGrp LOS	D	A	A	A	B	F	D	A	E			
Approach Vol, veh/h		1789			1598			1348				
Approach Delay, s/veh		15.0			52.5			48.2				
Approach LOS		B			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.0			30.0	49.0		41.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		70.5			28.5	37.5		40.5				
Max Q Clear Time (g_c+I1), s		2.0			24.3	46.5		33.1				
Green Ext Time (p_c), s		11.3			1.1	0.0		3.4				









Intersection Summary

HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	679	1110	910	0
Future Volume (vph)	679	1110	910	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	23.0	78.0	55.0	42.0
Total Split (%)	19.2%	65.0%	45.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	18.5	73.5	50.5	37.5
Actuated g/C Ratio	0.15	0.61	0.42	0.31
v/c Ratio	2.71	1.06	2.28	2.61
Control Delay	793.1	54.0	602.4	747.3
Queue Delay	0.0	18.3	0.1	2.0
Total Delay	793.1	72.4	602.5	749.3
LOS	F	E	F	F
Approach Delay		345.8	602.5	749.3
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.71	
Intersection Signal Delay: 547.9	Intersection LOS: F
Intersection Capacity Utilization 297.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps





HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

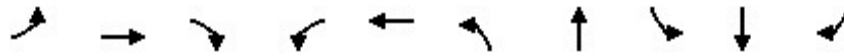
Oak Valley North Specific Plan  
ICE Configuration

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	679	1110	0	0	910	688	717	0	645	0	0	0
Future Volume (veh/h)	679	1110	0	0	910	688	717	0	645	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	738	1207	0	0	989	748	779	0	701			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	275	1146	0	0	416	315	277	0	249			
Arrive On Green	0.31	1.00	0.00	0.00	0.42	0.42	0.31	0.00	0.31			
Sat Flow, veh/h	1781	1870	0	0	988	747	886	0	797			
Grp Volume(v), veh/h	738	1207	0	0	0	1737	1480	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1736	1683	0	0			
Q Serve(g_s), s	18.5	0.0	0.0	0.0	0.0	50.5	37.5	0.0	0.0			
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	0.0	50.5	37.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.43	0.53		0.47			
Lane Grp Cap(c), veh/h	275	1146	0	0	0	730	526	0	0			
V/C Ratio(X)	2.69	1.05	0.00	0.00	0.00	2.38	2.81	0.00	0.00			
Avail Cap(c_a), veh/h	275	1146	0	0	0	730	526	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	0.0	0.0	0.0	0.0	34.8	41.3	0.0	0.0			
Incr Delay (d2), s/veh	760.3	26.6	0.0	0.0	0.0	624.3	821.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	64.8	8.5	0.0	0.0	0.0	147.4	135.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	801.8	26.6	0.0	0.0	0.0	659.0	863.1	0.0	0.0			
LnGrp LOS	F	F	A	A	A	F	F	A	A			
Approach Vol, veh/h		1945			1737			1480				
Approach Delay, s/veh		320.7			659.0			863.1				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		78.0			23.0	55.0		42.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		73.5			18.5	50.5		37.5				
Max Q Clear Time (g_c+I1), s		2.0			20.5	52.5		39.5				
Green Ext Time (p_c), s		19.3			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					590.1							
HCM 6th LOS					F							

Timings

Oak Valley North Specific Plan

3: Calimesa Bl. & Singleton Rd.

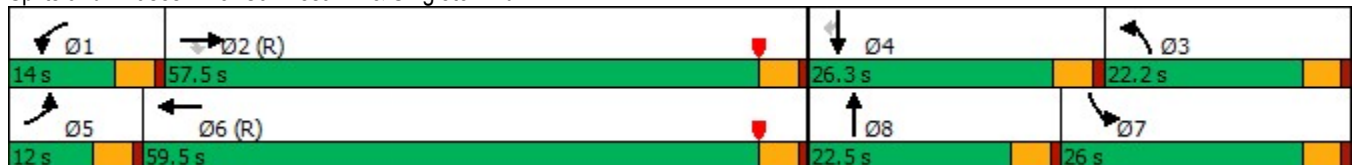


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖↗	↑↑	↖	↑↑	↖
Traffic Volume (vph)	174	1301	350	88	1121	320	75	225	141	268
Future Volume (vph)	174	1301	350	88	1121	320	75	225	141	268
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	12.0	57.5	57.5	14.0	59.5	22.2	22.5	26.0	26.3	26.3
Total Split (%)	10.0%	47.9%	47.9%	11.7%	49.6%	18.5%	18.8%	21.7%	21.9%	21.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	9.6	60.3	60.3	9.5	60.2	16.4	11.6	20.6	15.8	15.8
Actuated g/C Ratio	0.08	0.50	0.50	0.08	0.50	0.14	0.10	0.17	0.13	0.13
v/c Ratio	0.64	0.73	0.38	0.59	0.67	0.68	0.35	0.74	0.30	0.80
Control Delay	64.0	32.4	9.3	80.3	27.3	67.6	37.0	61.9	47.5	40.2
Queue Delay	0.0	0.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	33.2	9.3	80.3	27.5	67.6	37.0	61.9	47.5	40.2
LOS	E	C	A	F	C	E	D	E	D	D
Approach Delay		31.6			31.0		58.8		49.5	
Approach LOS		C			C		E		D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 113 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 37.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 76.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



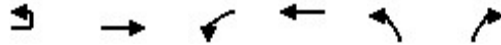
HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	1301	350	88	1121	112	320	75	53	225	141	268
Future Volume (veh/h)	174	1301	350	88	1121	112	320	75	53	225	141	268
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	174	1301	350	88	1121	112	320	75	53	225	141	268
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	1884	840	110	1771	177	385	172	112	312	522	233
Arrive On Green	0.13	1.00	1.00	0.12	1.00	1.00	0.11	0.08	0.08	0.17	0.15	0.15
Sat Flow, veh/h	3456	3554	1585	1781	3347	334	3456	2067	1339	1781	3554	1585
Grp Volume(v), veh/h	174	1301	350	88	626	607	320	64	64	225	141	268
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1810	1728	1777	1629	1781	1777	1585
Q Serve(g_s), s	5.9	0.0	0.0	5.8	0.0	0.0	10.9	4.1	4.5	14.3	4.2	14.8
Cycle Q Clear(g_c), s	5.9	0.0	0.0	5.8	0.0	0.0	10.9	4.1	4.5	14.3	4.2	14.8
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	216	1884	840	110	990	958	385	148	136	312	522	233
V/C Ratio(X)	0.81	0.69	0.42	0.80	0.63	0.63	0.83	0.43	0.48	0.72	0.27	1.15
Avail Cap(c_a), veh/h	216	1884	840	141	990	958	510	267	244	319	646	288
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	0.0	51.9	0.0	0.0	52.2	52.3	52.5	46.7	45.5	36.0
Incr Delay (d2), s/veh	15.7	1.6	1.2	22.0	3.1	3.2	8.6	2.0	2.6	7.6	0.3	103.0
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	2.9	0.4	0.3	3.1	0.8	0.8	5.2	1.9	2.0	7.0	1.9	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	1.6	1.2	74.0	3.1	3.2	60.8	54.2	55.1	54.3	45.8	139.0
LnGrp LOS	E	A	A	E	A	A	E	D	E	D	D	F
Approach Vol, veh/h		1825			1321			448			634	
Approach Delay, s/veh		7.8			7.8			59.0			88.2	
Approach LOS		A			A			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	68.1	17.9	22.1	12.0	68.0	25.5	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	53.0	17.7	21.8	7.5	55.0	21.5	18.0				
Max Q Clear Time (g_c+I1), s	7.8	2.0	12.9	16.8	7.9	2.0	16.3	6.5				
Green Ext Time (p_c), s	0.0	17.0	0.5	0.8	0.0	11.8	0.3	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			25.3									
HCM 6th LOS			C									

Timings

4: Beckwith Av. & Singleton Rd.

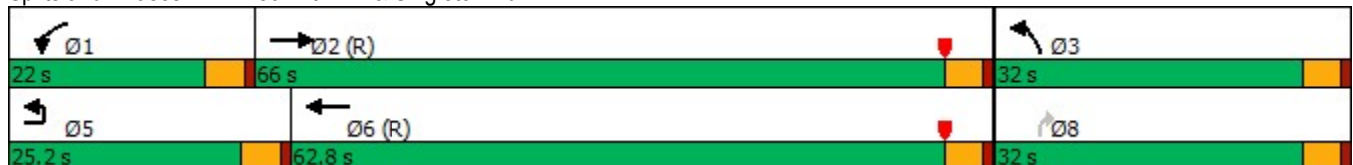


Lane Group	EBU	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↕	↔	↕↕	↔	↕↕
Traffic Volume (vph)	173	968	166	890	290	130
Future Volume (vph)	173	968	166	890	290	130
Turn Type	Prot	NA	Prot	NA	Prot	Perm
Protected Phases	5	2	1	6	3	
Permitted Phases						8
Detector Phase	5	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	25.2	66.0	22.0	62.8	32.0	32.0
Total Split (%)	21.0%	55.0%	18.3%	52.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	C-Max	None	Max
Act Effct Green (s)	16.4	63.8	15.2	62.6	27.5	27.5
Actuated g/C Ratio	0.14	0.53	0.13	0.52	0.23	0.23
v/c Ratio	0.71	0.79	0.74	0.48	0.72	0.28
Control Delay	60.5	25.8	78.6	26.6	53.8	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	25.8	78.6	26.6	53.8	8.0
LOS	E	C	E	C	D	A
Approach Delay		29.5		34.8	39.6	
Approach LOS		C		C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 93.4 (78%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 32.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 78.8%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

Oak Valley North Specific Plan



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↶↷		↰	↶↷	↰	↶↷
Traffic Volume (veh/h)	173	968	486	166	890	290	130
Future Volume (veh/h)	173	968	486	166	890	290	130
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		968	486	166	890	290	130
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1376	677	194	2640	324	289
Arrive On Green		1.00	1.00	0.11	0.74	0.18	0.18
Sat Flow, veh/h		2401	1135	1781	3647	1781	1585
Grp Volume(v), veh/h		741	713	166	890	290	130
Grp Sat Flow(s),veh/h/ln		1777	1666	1781	1777	1781	1585
Q Serve(g_s), s		0.0	0.0	11.0	10.3	19.1	8.8
Cycle Q Clear(g_c), s		0.0	0.0	11.0	10.3	19.1	8.8
Prop In Lane			0.68	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1060	993	194	2640	324	289
V/C Ratio(X)		0.70	0.72	0.85	0.34	0.89	0.45
Avail Cap(c_a), veh/h		1060	993	260	2640	408	363
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	52.5	5.3	47.9	43.7
Incr Delay (d2), s/veh		3.8	4.5	18.3	0.3	18.5	1.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.1	1.2	5.9	3.5	10.0	3.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		3.8	4.5	70.8	5.6	66.4	44.8
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		1454			1056	420	
Approach Delay, s/veh		4.1			15.9	59.7	
Approach LOS		A			B	E	
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	17.6	76.1				93.7	26.3
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	17.5	61.5				58.3	27.5
Max Q Clear Time (g_c+I1), s	13.0	2.0				12.3	21.1
Green Ext Time (p_c), s	0.2	17.1				7.9	0.8

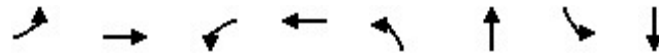
Intersection Summary

HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

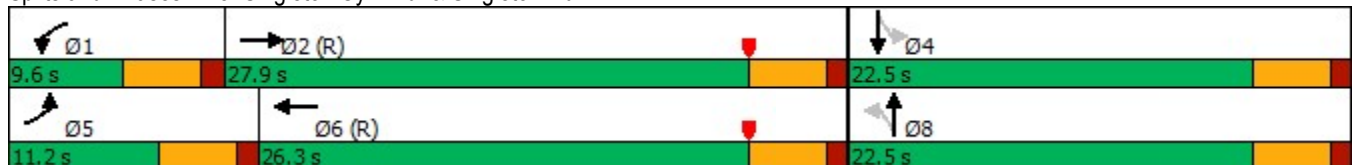


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↷	↶	↷	↶	↷	↶	↷
Traffic Volume (vph)	110	932	34	969	28	5	20	15
Future Volume (vph)	110	932	34	969	28	5	20	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.2	27.9	9.6	26.3	22.5	22.5	22.5	22.5
Total Split (%)	18.7%	46.5%	16.0%	43.8%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	8.0	42.7	6.0	35.7	11.6	11.6	11.6	11.6
Actuated g/C Ratio	0.13	0.71	0.10	0.60	0.19	0.19	0.19	0.19
v/c Ratio	0.47	0.40	0.19	0.47	0.11	0.10	0.08	0.20
Control Delay	36.4	7.0	27.6	12.0	19.5	9.1	18.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	7.0	27.6	12.0	19.5	9.1	18.8	9.0
LOS	D	A	C	B	B	A	B	A
Approach Delay		9.9		12.6		13.7		11.1
Approach LOS		A		B		B		B

Intersection Summary






















Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.47  
 Intersection Signal Delay: 11.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 53.0%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	932	56	34	969	17	28	5	30	20	15	59
Future Volume (veh/h)	110	932	56	34	969	17	28	5	30	20	15	59
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	110	932	56	34	969	17	28	5	30	20	15	59
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1991	120	64	1934	34	272	36	215	307	51	201
Arrive On Green	0.08	0.58	0.58	0.04	0.54	0.54	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3406	205	1781	3573	63	1326	231	1389	1373	332	1304
Grp Volume(v), veh/h	110	486	502	34	482	504	28	0	35	20	0	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1834	1781	1777	1859	1326	0	1620	1373	0	1636
Q Serve(g_s), s	3.6	9.4	9.4	1.1	10.2	10.2	1.1	0.0	1.1	0.8	0.0	2.4
Cycle Q Clear(g_c), s	3.6	9.4	9.4	1.1	10.2	10.2	3.6	0.0	1.1	1.9	0.0	2.4
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.86	1.00		0.80
Lane Grp Cap(c), veh/h	141	1038	1072	64	962	1006	272	0	250	307	0	253
V/C Ratio(X)	0.78	0.47	0.47	0.53	0.50	0.50	0.10	0.00	0.14	0.07	0.00	0.29
Avail Cap(c_a), veh/h	199	1038	1072	151	962	1006	465	0	486	506	0	491
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(l)	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	27.1	7.1	7.1	28.4	8.7	8.7	24.0	0.0	21.9	22.7	0.0	22.5
Incr Delay (d2), s/veh	12.0	1.5	1.5	6.6	1.9	1.8	0.2	0.0	0.3	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.2	3.2	0.6	3.7	3.8	0.4	0.0	0.4	0.2	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	8.6	8.6	35.0	10.5	10.4	24.2	0.0	22.2	22.8	0.0	23.1
LnGrp LOS	D	A	A	D	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1098			1020			63				94
Approach Delay, s/veh		11.7			11.3			23.1				23.0
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	39.6		13.8	9.3	37.0		13.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.4		18.0	6.7	21.8		18.0				
Max Q Clear Time (g_c+I1), s	3.1	11.4		4.4	5.6	12.2		5.6				
Green Ext Time (p_c), s	0.0	5.1		0.3	0.0	4.4		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								



Timings  
6: Calimesa Bl. & 5th St.

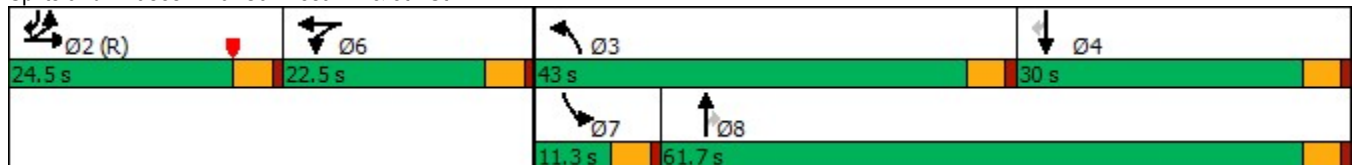


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	214	271	104	456	1140	424	239	37	400	538
Future Volume (vph)	214	271	104	456	1140	424	239	37	400	538
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	24.5	24.5	22.5	22.5	43.0	61.7	61.7	11.3	30.0	24.5
Total Split (%)	20.4%	20.4%	18.8%	18.8%	35.8%	51.4%	51.4%	9.4%	25.0%	20.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	20.0	20.0	17.8	17.8	38.7	62.0	62.0	6.5	25.5	50.0
Actuated g/C Ratio	0.17	0.17	0.15	0.15	0.32	0.52	0.52	0.05	0.21	0.42
v/c Ratio	0.65	0.68	0.40	0.89	1.00	0.44	0.28	0.39	1.01	0.75
Control Delay	58.3	45.0	51.2	68.7	48.6	19.8	10.6	66.4	95.7	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	45.0	51.2	68.7	48.6	19.8	10.6	66.4	95.7	32.0
LOS	E	D	D	E	D	B	B	E	F	C
Approach Delay		49.1		65.7		36.8			59.5	
Approach LOS		D		E		D			E	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 86 (72%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 48.5  
 Intersection Capacity Utilization 94.4%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F


























Splits and Phases: 6: Calimesa Bl. & 5th St.





HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 					
Traffic Volume (veh/h)	214	271	145	104	456	32	1140	424	239	37	400	538
Future Volume (veh/h)	214	271	145	104	456	32	1140	424	239	37	400	538
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	186	310	73	104	456	17	1140	424	124	37	400	273
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	508	118	256	515	19	1143	942	799	53	397	611
Arrive On Green	0.26	0.26	0.26	0.22	0.22	0.22	0.48	0.76	0.76	0.04	0.32	0.32
Sat Flow, veh/h	1781	2937	681	1781	3583	133	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	186	196	187	104	238	235	1140	424	124	37	400	273
Grp Sat Flow(s),veh/h/ln	1781	1870	1748	1781	1870	1846	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.0	11.0	11.3	6.0	14.8	14.8	38.3	10.1	2.6	2.5	25.5	14.8
Cycle Q Clear(g_c), s	11.0	11.0	11.3	6.0	14.8	14.8	38.3	10.1	2.6	2.5	25.5	14.8
Prop In Lane	1.00		0.39	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	308	324	302	256	269	265	1143	942	799	53	397	611
V/C Ratio(X)	0.60	0.60	0.62	0.41	0.88	0.89	1.00	0.45	0.16	0.70	1.01	0.45
Avail Cap(c_a), veh/h	308	324	302	267	281	277	1143	942	799	101	397	611
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	40.8	40.9	42.7	46.1	46.1	31.1	8.5	7.6	56.8	40.9	23.5
Incr Delay (d2), s/veh	8.5	8.1	9.2	1.0	26.0	26.8	25.9	1.6	0.4	15.7	46.8	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	5.5	5.4	2.7	8.3	8.3	17.9	3.6	0.9	1.3	15.7	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	49.0	50.1	43.7	72.1	72.9	57.0	10.1	8.0	72.5	87.6	25.9
LnGrp LOS	D	D	D	D	E	E	E	B	A	E	F	C
Approach Vol, veh/h		569			577			1688			710	
Approach Delay, s/veh		49.5			67.3			41.6			63.1	
Approach LOS		D			E			D			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.3	43.0	30.0		21.7	8.0	65.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		20.0	38.5	25.5		18.0	6.8	57.2				
Max Q Clear Time (g_c+I1), s		13.3	40.3	27.5		16.8	4.5	12.1				
Green Ext Time (p_c), s		1.6	0.0	0.0		0.4	0.0	3.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			51.4									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

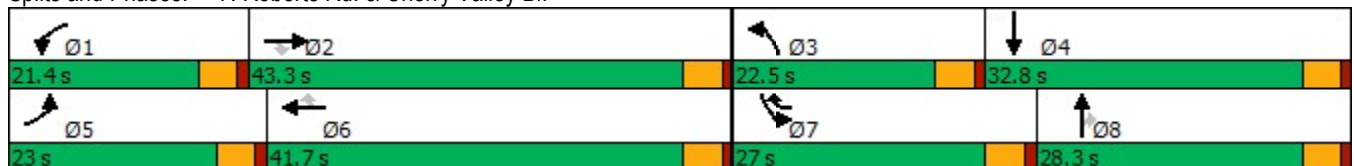
Timings  
7: Roberts Rd. & Cherry Valley Bl.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	343	705	29	301	798	500	29	10	163	386	13
Future Volume (vph)	343	705	29	301	798	500	29	10	163	386	13
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	43.3	43.3	21.4	41.7	27.0	22.5	28.3	28.3	27.0	32.8
Total Split (%)	19.2%	36.1%	36.1%	17.8%	34.8%	22.5%	18.8%	23.6%	23.6%	22.5%	27.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	15.7	32.4	32.4	14.4	31.0	58.2	18.1	23.9	23.9	22.6	28.5
Actuated g/C Ratio	0.14	0.29	0.29	0.13	0.28	0.52	0.16	0.21	0.21	0.20	0.26
v/c Ratio	0.71	0.69	0.06	0.68	0.81	0.53	0.10	0.03	0.35	0.55	0.58
Control Delay	55.0	38.8	0.2	55.3	44.7	11.2	43.9	38.5	8.5	44.7	8.1
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	55.0	38.8	0.2	55.3	44.7	11.2	43.9	38.5	8.5	44.7	8.1
LOS	D	D	A	E	D	B	D	D	A	D	A
Approach Delay		42.9			36.3			15.0			25.9
Approach LOS		D			D			B			C

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 111.4  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 34.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 68.3%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

Oak Valley North Specific Plan

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	705	29	301	798	500	29	10	163	386	13	396
Future Volume (veh/h)	343	705	29	301	798	500	29	10	163	386	13	396
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	343	705	29	301	798	500	29	10	163	386	13	396
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	1093	487	373	1047	791	292	405	343	707	13	397
Arrive On Green	0.12	0.31	0.31	0.11	0.29	0.29	0.16	0.22	0.22	0.20	0.26	0.26
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	51	1542
Grp Volume(v), veh/h	343	705	29	301	798	500	29	10	163	386	0	409
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1593
Q Serve(g_s), s	10.7	18.8	1.4	9.4	22.5	25.4	1.5	0.5	9.9	11.0	0.0	28.2
Cycle Q Clear(g_c), s	10.7	18.8	1.4	9.4	22.5	25.4	1.5	0.5	9.9	11.0	0.0	28.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	417	1093	487	373	1047	791	292	405	343	707	0	410
V/C Ratio(X)	0.82	0.65	0.06	0.81	0.76	0.63	0.10	0.02	0.48	0.55	0.00	1.00
Avail Cap(c_a), veh/h	581	1254	559	531	1202	860	292	405	343	707	0	410
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(l)	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	47.2	32.9	26.9	47.9	35.3	20.1	39.1	33.9	37.6	39.2	0.0	40.8
Incr Delay (d2), s/veh	6.6	0.9	0.1	6.1	2.5	1.3	0.7	0.1	4.7	3.0	0.0	44.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.1	0.5	4.3	9.9	9.3	0.7	0.2	4.3	4.9	0.0	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	33.8	26.9	54.0	37.8	21.5	39.8	34.1	42.3	42.2	0.0	84.8
LnGrp LOS	D	C	C	D	D	C	D	C	D	D	A	F
Approach Vol, veh/h		1077			1599			202			795	
Approach Delay, s/veh		40.0			35.8			41.5			64.1	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	38.3	22.5	32.8	17.8	36.9	27.0	28.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.9	38.8	18.0	28.3	18.5	37.2	22.5	23.8				
Max Q Clear Time (g_c+I1), s	11.4	20.8	3.5	30.2	12.7	27.4	13.0	11.9				
Green Ext Time (p_c), s	0.5	4.6	0.0	0.0	0.6	5.0	1.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

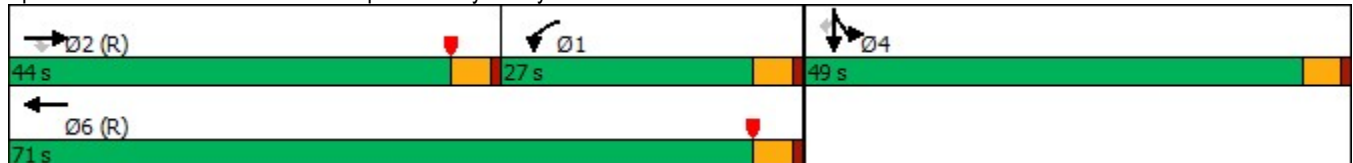


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↓	↔
Traffic Volume (vph)	1020	236	566	696	0	903
Future Volume (vph)	1020	236	566	696	0	903
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	44.0	44.0	27.0	71.0	49.0	49.0
Total Split (%)	36.7%	36.7%	22.5%	59.2%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	39.5	39.5	22.5	66.5	44.5	44.5
Actuated g/C Ratio	0.33	0.33	0.19	0.55	0.37	0.37
v/c Ratio	0.88	0.38	0.88	0.35	0.89	0.71
Control Delay	47.7	14.6	33.1	7.1	53.5	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	14.6	33.1	7.1	53.5	21.8
LOS	D	B	C	A	D	C
Approach Delay	41.5			18.8	34.3	
Approach LOS	D			B	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 99.5 (83%), 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: 31.7  
 Intersection Capacity Utilization 88.1%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖↗	↑↑						↖	↖↗
Traffic Volume (veh/h)	0	1020	236	566	696	0	0	0	0	587	0	903
Future Volume (veh/h)	0	1020	236	566	696	0	0	0	0	587	0	903
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	1020	236	566	696	0				587	0	903
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1170	522	648	1969	0				661	0	1035
Arrive On Green	0.00	0.33	0.33	0.38	1.00	0.00				0.61	0.00	0.61
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1020	236	566	696	0				587	0	903
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	32.4	14.1	18.3	0.0	0.0				33.6	0.0	32.4
Cycle Q Clear(g_c), s	0.0	32.4	14.1	18.3	0.0	0.0				33.6	0.0	32.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1170	522	648	1969	0				661	0	1035
V/C Ratio(X)	0.00	0.87	0.45	0.87	0.35	0.00				0.89	0.00	0.87
Avail Cap(c_a), veh/h	0	1170	522	648	1969	0				661	0	1035
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.65	1.65	1.65
Upstream Filter(l)	0.00	0.77	0.77	0.36	0.36	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.9	31.7	36.2	0.0	0.0				21.2	0.0	20.9
Incr Delay (d2), s/veh	0.0	7.2	2.2	5.1	0.2	0.0				16.4	0.0	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.9	5.7	6.6	0.0	0.0				13.5	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	45.0	33.9	41.3	0.2	0.0				37.6	0.0	31.1
LnGrp LOS	A	D	C	D	A	A				D	A	C
Approach Vol, veh/h		1256			1262						1490	
Approach Delay, s/veh		43.0			18.6						33.6	
Approach LOS		D			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	27.0	44.0		49.0		71.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.5	39.5		44.5		66.5						
Max Q Clear Time (g_c+I1), s	20.3	34.4		35.6		2.0						
Green Ext Time (p_c), s	0.5	3.2		5.2		5.5						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				31.8								
HCM 6th LOS				C								

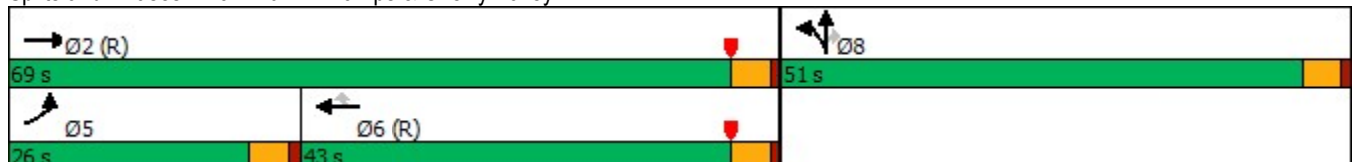
Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	559	1048	1002	610	10	647
Future Volume (vph)	559	1048	1002	610	10	647
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	69.0	43.0	43.0	51.0	51.0
Total Split (%)	21.7%	57.5%	35.8%	35.8%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	21.3	64.5	38.7	38.7	46.5	46.5
Actuated g/C Ratio	0.18	0.54	0.32	0.32	0.39	0.39
v/c Ratio	0.92	0.55	0.88	0.62	0.39	0.98
Control Delay	84.8	9.4	42.9	9.6	28.7	61.9
Queue Delay	0.0	0.3	0.0	0.1	0.0	0.0
Total Delay	84.8	9.8	42.9	9.6	28.7	61.9
LOS	F	A	D	A	C	E
Approach Delay		35.8	30.3		52.1	
Approach LOS		D	C		D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 98.5 (82%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 37.3  
 Intersection Capacity Utilization 88.1%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



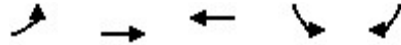
HCM 6th Signalized Intersection Summary  
9: I-10 WB Ramps & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	559	1048	0	0	1002	610	259	10	647	0	0	0
Future Volume (veh/h)	559	1048	0	0	1002	610	259	10	647	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	559	1048	0	0	1002	610	259	10	647			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	602	1910	0	0	1158	516	666	26	614			
Arrive On Green	0.35	1.00	0.00	0.00	0.33	0.33	0.39	0.39	0.39			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1718	66	1585			
Grp Volume(v), veh/h	559	1048	0	0	1002	610	269	0	647			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1784	0	1585			
Q Serve(g_s), s	18.7	0.0	0.0	0.0	31.8	39.1	13.0	0.0	46.5			
Cycle Q Clear(g_c), s	18.7	0.0	0.0	0.0	31.8	39.1	13.0	0.0	46.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	602	1910	0	0	1158	516	691	0	614			
V/C Ratio(X)	0.93	0.55	0.00	0.00	0.87	1.18	0.39	0.00	1.05			
Avail Cap(c_a), veh/h	619	1910	0	0	1158	516	691	0	614			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.36	0.36	0.00	0.00	0.49	0.49	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.4	0.0	0.0	0.0	38.0	40.5	26.5	0.0	36.8			
Incr Delay (d2), s/veh	9.2	0.4	0.0	0.0	4.6	91.5	1.6	0.0	51.2			
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	7.2	0.1	0.0	0.0	14.3	28.0	5.9	0.0	26.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	0.4	0.0	0.0	42.5	132.0	28.2	0.0	87.9			
LnGrp LOS	D	A	A	A	D	F	C	A	F			
Approach Vol, veh/h		1607			1612			916				
Approach Delay, s/veh		16.8			76.4			70.4				
Approach LOS		B			E			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.0			25.4	43.6		51.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		64.5			21.5	38.5		46.5				
Max Q Clear Time (g_c+I1), s		2.0			20.7	41.1		48.5				
Green Ext Time (p_c), s		9.7			0.2	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					51.9							
HCM 6th LOS					D							
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
10: Cherry Valley Bl. & Calimesa Bl.

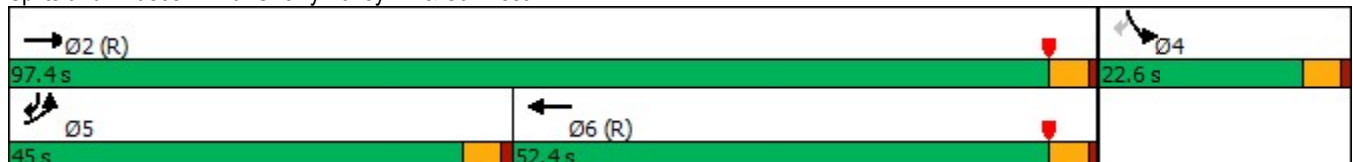


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗↗	↗↖	↖	↗
Traffic Volume (vph)	535	1160	1183	155	429
Future Volume (vph)	535	1160	1183	155	429
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	45.0	97.4	52.4	22.6	45.0
Total Split (%)	37.5%	81.2%	43.7%	18.8%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	38.8	92.9	49.6	18.1	61.4
Actuated g/C Ratio	0.32	0.77	0.41	0.15	0.51
v/c Ratio	0.94	0.42	0.90	0.58	0.52
Control Delay	63.0	3.6	42.4	66.1	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	3.6	42.4	66.1	23.4
LOS	E	A	D	E	C
Approach Delay		22.4	42.4	34.7	
Approach LOS		C	D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 107.9 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 31.7  
 Intersection Capacity Utilization 85.8%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.





HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	535	1160	1183	115	155	429
Future Volume (veh/h)	535	1160	1183	115	155	429
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	535	1160	1183	115	155	429
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	551	2751	1398	136	269	730
Arrive On Green	0.62	1.00	0.43	0.43	0.15	0.15
Sat Flow, veh/h	1781	3647	3366	318	1781	1585
Grp Volume(v), veh/h	535	1160	641	657	155	429
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1813	1781	1585
Q Serve(g_s), s	34.4	0.0	38.8	39.0	9.7	18.1
Cycle Q Clear(g_c), s	34.4	0.0	38.8	39.0	9.7	18.1
Prop In Lane	1.00			0.18	1.00	1.00
Lane Grp Cap(c), veh/h	551	2751	759	774	269	730
V/C Ratio(X)	0.97	0.42	0.85	0.85	0.58	0.59
Avail Cap(c_a), veh/h	601	2751	759	774	269	730
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.63	0.63	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	30.8	30.9	47.4	24.0
Incr Delay (d2), s/veh	21.4	0.3	11.2	11.2	8.7	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.1	18.4	18.9	4.9	22.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.7	0.3	42.0	42.0	56.1	27.4
LnGrp LOS	D	A	D	D	E	C
Approach Vol, veh/h		1695	1298		584	
Approach Delay, s/veh		14.0	42.0		35.0	
Approach LOS		B	D		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	41.6	55.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	40.5	47.9
Max Q Clear Time (g_c+I1), s		2.0		20.1	36.4	41.0
Green Ext Time (p_c), s		11.6		0.0	0.8	4.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			27.6			
HCM 6th LOS			C			

Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp



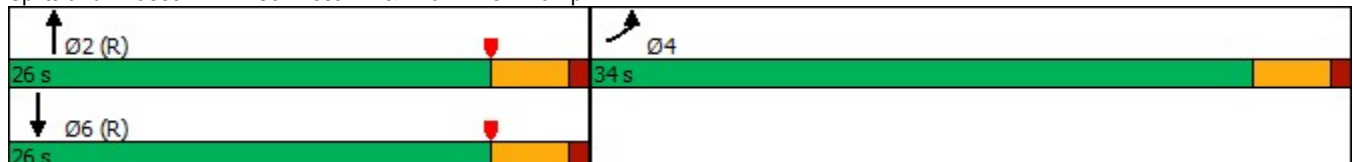
Lane Group	EBL	NBT	SBT
Lane Configurations	↔	↑↑	↑
Traffic Volume (vph)	1019	1302	604
Future Volume (vph)	1019	1302	604
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	34.0	26.0	26.0
Total Split (%)	56.7%	43.3%	43.3%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	29.5	21.5	21.5
Actuated g/C Ratio	0.49	0.36	0.36
v/c Ratio	1.17	0.98	0.91
Control Delay	109.2	40.8	38.4
Queue Delay	0.0	0.0	0.0
Total Delay	109.2	40.8	38.4
LOS	F	D	D
Approach Delay	109.2	40.8	38.4
Approach LOS	F	D	D

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.17  
 Intersection Signal Delay: 64.2  
 Intersection Capacity Utilization 100.1%  
 Analysis Period (min) 15

Intersection LOS: E  
 ICU Level of Service G

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1019	2	0	1302	604	0
Future Volume (veh/h)	1019	2	0	1302	604	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	1019	1	0	1302	604	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	874	1	0	1340	670	0
Arrive On Green	0.74	0.49	0.00	0.54	0.36	0.00
Sat Flow, veh/h	1778	2	0	3741	1870	0
Grp Volume(v), veh/h	1021	0	0	1302	604	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1870	1870	0
Q Serve(g_s), s	29.5	0.0	0.0	20.2	18.4	0.0
Cycle Q Clear(g_c), s	29.5	0.0	0.0	20.2	18.4	0.0
Prop In Lane	1.00	0.00	0.00			0.00
Lane Grp Cap(c), veh/h	876	0	0	1340	670	0
V/C Ratio(X)	1.17	0.00	0.00	0.97	0.90	0.00
Avail Cap(c_a), veh/h	876	0	0	1340	670	0
HCM Platoon Ratio	1.50	1.00	1.00	1.50	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.9	0.0	0.0	13.6	18.2	0.0
Incr Delay (d2), s/veh	87.0	0.0	0.0	18.6	17.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.6	0.0	0.0	8.2	10.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	94.9	0.0	0.0	32.2	35.8	0.0
LnGrp LOS	F	A	A	C	D	A
Approach Vol, veh/h	1021			1302	604	
Approach Delay, s/veh	94.9			32.2	35.8	
Approach LOS	F			C	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		22.2		31.5		20.4
Green Ext Time (p_c), s		0.0		0.0		0.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			54.8			
HCM 6th LOS			D			
<b>Notes</b>						
User approved volume balancing among the lanes for turning movement.						

Timings  
12: Roberts Rd. & Singleton Rd.

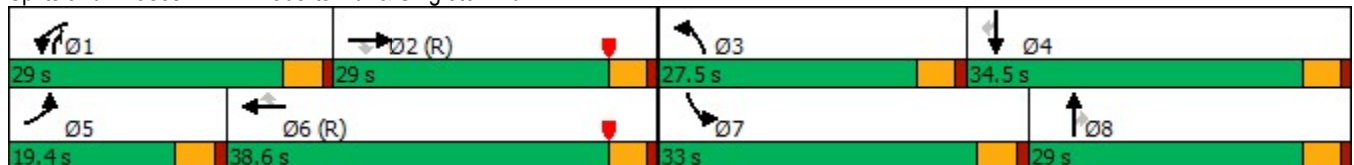
Oak Valley North Specific Plan

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	779	161	599	965	583	200	299	722	480	195	121
Future Volume (vph)	205	779	161	599	965	583	200	299	722	480	195	121
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	29.0	22.5	22.5	9.5	29.0	29.0	9.5	22.5	22.5
Total Split (s)	19.4	29.0	29.0	29.0	38.6	38.6	27.5	29.0	29.0	33.0	34.5	34.5
Total Split (%)	16.2%	24.2%	24.2%	24.2%	32.2%	32.2%	22.9%	24.2%	24.2%	27.5%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	20.1	24.8	24.8	33.8	38.5	38.5	18.3	14.9	53.2	28.5	25.1	25.1
Actuated g/C Ratio	0.17	0.21	0.21	0.28	0.32	0.32	0.15	0.12	0.44	0.24	0.21	0.21
v/c Ratio	0.69	1.01	0.34	0.60	0.81	0.78	0.74	0.65	0.96	1.14	0.25	0.28
Control Delay	59.8	82.6	6.6	49.9	37.9	18.4	65.1	56.5	52.7	130.7	40.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	82.6	6.6	49.9	37.9	18.4	65.1	56.5	52.7	130.7	40.9	6.7
LOS	E	F	A	D	D	B	E	E	D	F	D	A
Approach Delay		67.8			35.9			55.7			89.9	
Approach LOS		E			D			E			F	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 90.9 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 55.4  
 Intersection LOS: E  
 Intersection Capacity Utilization 104.1%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	779	161	599	965	583	200	299	722	480	195	121
Future Volume (veh/h)	205	779	161	599	965	583	200	299	722	480	195	121
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	205	779	81	599	965	292	200	299	361	480	195	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	840	356	660	1069	453	229	758	615	423	1166	494
Arrive On Green	0.19	0.34	0.34	0.28	0.43	0.43	0.19	0.30	0.30	0.36	0.47	0.47
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	205	779	81	599	965	292	200	299	361	480	195	61
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	13.6	24.1	4.4	19.5	28.9	17.5	13.1	7.6	22.2	28.5	3.6	2.6
Cycle Q Clear(g_c), s	13.6	24.1	4.4	19.5	28.9	17.5	13.1	7.6	22.2	28.5	3.6	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	840	356	660	1069	453	229	758	615	423	1166	494
V/C Ratio(X)	0.93	0.93	0.23	0.91	0.90	0.64	0.88	0.39	0.59	1.13	0.17	0.12
Avail Cap(c_a), veh/h	221	840	356	727	1069	453	341	764	617	423	1166	494
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	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	38.8	32.3	42.3	32.7	29.5	47.5	36.0	25.6	38.6	22.9	22.7
Incr Delay (d2), s/veh	40.8	17.7	1.5	11.7	9.9	5.4	15.2	0.3	1.4	85.9	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	8.2	12.1	1.8	9.0	13.1	6.6	6.4	3.4	7.6	21.3	1.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.1	56.6	33.8	54.0	42.7	34.9	62.8	36.3	27.0	124.5	23.0	22.8
LnGrp LOS	F	E	C	D	D	C	E	D	C	F	C	C
Approach Vol, veh/h		1065			1856			860			736	
Approach Delay, s/veh		61.1			45.1			38.5			89.2	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.7	31.5	19.9	41.9	19.4	38.8	33.0	28.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	24.5	24.5	23.0	30.0	14.9	34.1	28.5	24.5				
Max Q Clear Time (g_c+I1), s	21.5	26.1	15.1	5.6	15.6	30.9	30.5	24.2				
Green Ext Time (p_c), s	0.8	0.0	0.3	1.4	0.0	2.2	0.0	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			54.8									
HCM 6th LOS			D									

**APPENDIX 7.8: HORIZON YEAR (2045) WITH PROJECT SCENARIO 2  
CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

Timings  
1: Singleton Rd. & I-10 EB Ramps

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

	→	↘	↙	←	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘	↕	↘
Traffic Volume (vph)	694	447	648	607	490	0	350
Future Volume (vph)	694	447	648	607	490	0	350
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	41.0	41.0	39.0	80.0	40.0	40.0	40.0
Total Split (%)	34.2%	34.2%	32.5%	66.7%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	42.9	42.9	28.1	75.5	35.5	35.5	35.5
Actuated g/C Ratio	0.36	0.36	0.23	0.63	0.30	0.30	0.30
v/c Ratio	0.55	0.52	0.81	0.27	0.59	0.55	0.42
Control Delay	26.9	1.5	62.5	8.0	41.9	33.0	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	1.5	62.5	8.0	41.9	33.0	6.0
LOS	C	A	E	A	D	C	A
Approach Delay	16.9			36.1		27.7	
Approach LOS	B			D		C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 92.5 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 27.2  
 Intersection Capacity Utilization 90.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E













Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



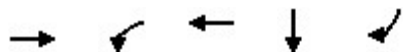


HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑					↘	↕	↗
Traffic Volume (veh/h)	0	694	447	648	607	0	0	0	0	490	0	350
Future Volume (veh/h)	0	694	447	648	607	0	0	0	0	490	0	350
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	694	447	648	607	0				599	0	233
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1355	604	727	2236	0				1054	0	469
Arrive On Green	0.00	0.38	0.38	0.35	1.00	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	3647	1585	3456	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	694	447	648	607	0				599	0	233
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	18.0	29.2	21.3	0.0	0.0				17.1	0.0	14.6
Cycle Q Clear(g_c), s	0.0	18.0	29.2	21.3	0.0	0.0				17.1	0.0	14.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1355	604	727	2236	0				1054	0	469
V/C Ratio(X)	0.00	0.51	0.74	0.89	0.27	0.00				0.57	0.00	0.50
Avail Cap(c_a), veh/h	0	1355	604	994	2236	0				1054	0	469
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.22	0.22	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.5	32.0	37.6	0.0	0.0				35.8	0.0	34.9
Incr Delay (d2), s/veh	0.0	0.3	1.8	6.7	0.2	0.0				2.2	0.0	3.7
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	7.7	11.3	8.6	0.1	0.0				7.7	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.8	33.8	44.3	0.2	0.0				38.0	0.0	38.6
LnGrp LOS	A	C	C	D	A	A				D	A	D
Approach Vol, veh/h		1141			1255						832	
Approach Delay, s/veh		30.8			23.0						38.2	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.7	50.3		40.0		80.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	34.5	36.5		35.5		75.5						
Max Q Clear Time (g_c+I1), s	23.3	31.2		19.1		2.0						
Green Ext Time (p_c), s	2.0	2.9		2.9		4.9						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

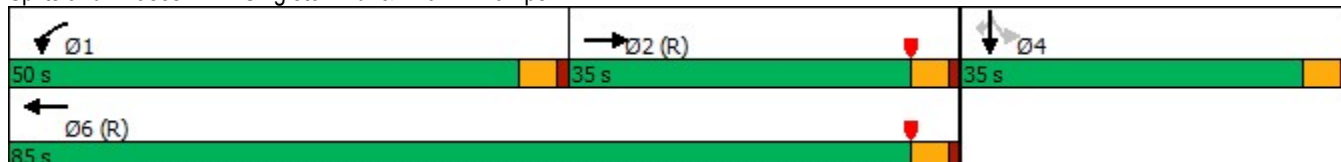


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	→	↵	←	↓	↵
Traffic Volume (vph)	694	648	607	0	350
Future Volume (vph)	694	648	607	0	350
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	35.0	50.0	85.0	35.0	35.0
Total Split (%)	29.2%	41.7%	70.8%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	30.5	45.5	80.5	30.5	30.5
Actuated g/C Ratio	0.25	0.38	0.67	0.25	0.25
v/c Ratio	2.69	1.06	0.53	1.14	0.65
Control Delay	784.3	76.9	11.2	125.9	18.4
Queue Delay	0.1	4.8	2.5	2.3	0.0
Total Delay	784.5	81.7	13.7	128.2	18.4
LOS	F	F	B	F	B
Approach Delay	784.5		48.8	82.4	
Approach LOS	F		D	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.69  
 Intersection Signal Delay: 316.9  
 Intersection LOS: F  
 Intersection Capacity Utilization 180.0%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻	↻
Traffic Volume (veh/h)	0	694	447	648	607	0	0	0	0	490	0	350
Future Volume (veh/h)	0	694	447	648	607	0	0	0	0	490	0	350
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	763	491	712	667	0				538	0	385
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	270	174	675	1255	0				453	0	403
Arrive On Green	0.00	0.25	0.25	0.63	1.00	0.00				0.25	0.00	0.25
Sat Flow, veh/h	0	1063	684	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1254	712	667	0				538	0	385
Grp Sat Flow(s),veh/h/ln	0	0	1747	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	30.5	45.5	0.0	0.0				30.5	0.0	28.7
Cycle Q Clear(g_c), s	0.0	0.0	30.5	45.5	0.0	0.0				30.5	0.0	28.7
Prop In Lane	0.00		0.39	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	444	675	1255	0				453	0	403
V/C Ratio(X)	0.00	0.00	2.82	1.05	0.53	0.00				1.19	0.00	0.96
Avail Cap(c_a), veh/h	0	0	444	675	1255	0				453	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	44.8	22.0	0.0	0.0				44.8	0.0	44.1
Incr Delay (d2), s/veh	0.0	0.0	826.9	28.4	0.1	0.0				105.0	0.0	35.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	115.1	18.9	0.1	0.0				26.5	0.0	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	871.7	50.4	0.1	0.0				149.7	0.0	79.1
LnGrp LOS	A	A	F	F	A	A				F	A	E
Approach Vol, veh/h		1254			1379						923	
Approach Delay, s/veh		871.7			26.1						120.3	
Approach LOS		F			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	50.0	35.0		35.0		85.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	45.5	30.5		30.5		80.5						
Max Q Clear Time (g_c+I1), s	47.5	32.5		32.5		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		5.6						

Intersection Summary

HCM 6th Ctrl Delay	348.7
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

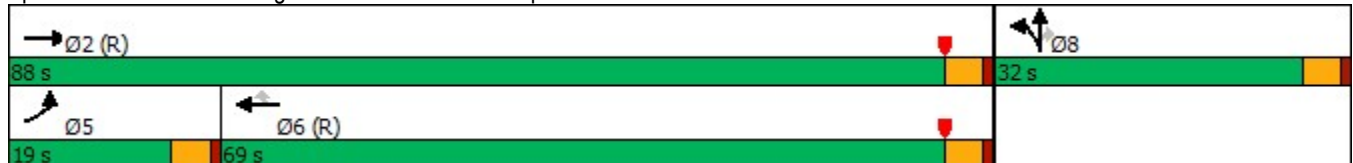


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	411	923	945	890	309	0	402
Future Volume (vph)	411	923	945	890	309	0	402
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	19.0	88.0	69.0	69.0	32.0	32.0	32.0
Total Split (%)	15.8%	73.3%	57.5%	57.5%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	17.3	88.0	66.2	66.2	23.0	23.0	23.0
Actuated g/C Ratio	0.14	0.73	0.55	0.55	0.19	0.19	0.19
v/c Ratio	0.83	0.36	0.48	0.74	0.77	0.63	0.52
Control Delay	86.8	10.1	11.8	5.9	61.3	30.5	13.2
Queue Delay	0.0	0.0	0.3	0.7	0.0	0.0	0.0
Total Delay	86.8	10.1	12.1	6.6	61.3	30.5	13.2
LOS	F	B	B	A	E	C	B
Approach Delay		33.7	9.4			35.6	
Approach LOS		C	A			D	

Intersection Summary
























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 119 (99%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 22.6  
 Intersection Capacity Utilization 90.7%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service E

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	411	923	0	0	945	890	309	0	402	0	0	0
Future Volume (veh/h)	411	923	0	0	945	890	309	0	402	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	411	923	0	0	945	890	449	0	252			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	418	2632	0	0	2069	923	657	0	292			
Arrive On Green	0.24	1.00	0.00	0.00	1.00	1.00	0.18	0.00	0.18			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	411	923	0	0	945	890	449	0	252			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	14.2	0.0	0.0	0.0	0.0	0.0	14.1	0.0	18.5			
Cycle Q Clear(g_c), s	14.2	0.0	0.0	0.0	0.0	0.0	14.1	0.0	18.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	418	2632	0	0	2069	923	657	0	292			
V/C Ratio(X)	0.98	0.35	0.00	0.00	0.46	0.96	0.68	0.00	0.86			
Avail Cap(c_a), veh/h	418	2632	0	0	2069	923	816	0	363			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.81	0.81	0.00	0.00	0.49	0.49	1.00	0.00	1.00			
Uniform Delay (d), s/veh	45.4	0.0	0.0	0.0	0.0	0.0	45.7	0.0	47.5			
Incr Delay (d2), s/veh	35.5	0.3	0.0	0.0	0.4	13.9	1.7	0.0	16.0			
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	7.3	0.1	0.0	0.0	0.1	3.6	6.4	0.0	8.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.8	0.3	0.0	0.0	0.4	13.9	47.4	0.0	63.4			
LnGrp LOS	F	A	A	A	A	B	D	A	E			
Approach Vol, veh/h		1334			1835			701				
Approach Delay, s/veh		25.1			6.9			53.2				
Approach LOS		C			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		93.4			19.0	74.4		26.6				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		83.5			14.5	64.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0			16.2	2.0		20.5				
Green Ext Time (p_c), s		8.5			0.0	17.6		1.6				









Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

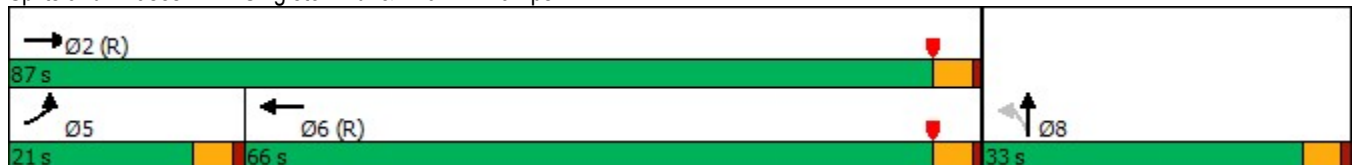
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	411	923	945	0
Future Volume (vph)	411	923	945	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	21.0	87.0	66.0	33.0
Total Split (%)	17.5%	72.5%	55.0%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	16.5	82.5	61.5	28.5
Actuated g/C Ratio	0.14	0.69	0.51	0.24
v/c Ratio	1.82	0.78	2.14	1.73
Control Delay	395.2	28.4	538.5	365.2
Queue Delay	0.0	50.1	0.7	1.5
Total Delay	395.2	78.6	539.2	366.8
LOS	F	E	F	F
Approach Delay		176.1	539.2	366.8
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.14  
 Intersection Signal Delay: 382.8  
 Intersection LOS: F  
 Intersection Capacity Utilization 180.0%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	411	923	0	0	945	890	309	0	402	0	0	0
Future Volume (veh/h)	411	923	0	0	945	890	309	0	402	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	442	992	0	0	1016	957	332	0	432			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	245	1286	0	0	454	428	172	0	224			
Arrive On Green	0.28	1.00	0.00	0.00	0.51	0.51	0.24	0.00	0.24			
Sat Flow, veh/h	1781	1870	0	0	886	834	723	0	941			
Grp Volume(v), veh/h	442	992	0	0	0	1973	764	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1720	1665	0	0			
Q Serve(g_s), s	16.5	0.0	0.0	0.0	0.0	61.5	28.5	0.0	0.0			
Cycle Q Clear(g_c), s	16.5	0.0	0.0	0.0	0.0	61.5	28.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.49	0.43		0.57			
Lane Grp Cap(c), veh/h	245	1286	0	0	0	882	395	0	0			
V/C Ratio(X)	1.80	0.77	0.00	0.00	0.00	2.24	1.93	0.00	0.00			
Avail Cap(c_a), veh/h	245	1286	0	0	0	882	395	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.5	0.0	0.0	0.0	0.0	29.3	45.8	0.0	0.0			
Incr Delay (d2), s/veh	363.6	0.4	0.0	0.0	0.0	560.8	428.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	30.9	0.2	0.0	0.0	0.0	161.5	58.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	407.1	0.4	0.0	0.0	0.0	590.0	474.5	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1434			1973			764				
Approach Delay, s/veh		125.8			590.0			474.5				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.0			21.0	66.0		33.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		82.5			16.5	61.5		28.5				
Max Q Clear Time (g_c+I1), s		2.0			18.5	63.5		30.5				
Green Ext Time (p_c), s		11.7			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					409.3							
HCM 6th LOS					F							



Timings  
3: Calimesa Bl. & Singleton Rd.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	188	832	404	56	1147	527	312	88	47	200
Future Volume (vph)	188	832	404	56	1147	527	312	88	47	200
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	56.0	56.0	13.4	59.4	28.0	33.6	17.0	22.6	22.6
Total Split (%)	8.3%	46.7%	46.7%	11.2%	49.5%	23.3%	28.0%	14.2%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	11.3	60.7	60.7	8.3	55.7	22.5	20.4	14.6	12.5	12.5
Actuated g/C Ratio	0.09	0.51	0.51	0.07	0.46	0.19	0.17	0.12	0.10	0.10
v/c Ratio	0.58	0.46	0.40	0.44	0.81	0.82	0.77	0.41	0.13	0.70
Control Delay	60.5	21.2	4.6	67.2	29.0	48.1	62.8	55.1	48.0	31.0
Queue Delay	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	21.4	4.8	67.2	29.1	48.1	62.8	55.1	48.0	31.0
LOS	E	C	A	E	C	D	E	E	D	C
Approach Delay		21.8			30.6		55.2		39.7	
Approach LOS		C			C		E		D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 111.5 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 34.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 83.0%  
 ICU Level of Service E  
 Analysis Period (min) 15





























Splits and Phases: 3: Calimesa Bl. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 			 	
Traffic Volume (veh/h)	188	832	404	56	1147	236	527	312	185	88	47	200
Future Volume (veh/h)	188	832	404	56	1147	236	527	312	185	88	47	200
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	188	832	404	56	1147	236	527	312	185	88	47	200
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	1806	806	72	1515	310	601	391	226	216	453	202
Arrive On Green	0.09	1.00	1.00	0.08	1.00	1.00	0.06	0.06	0.06	0.12	0.13	0.13
Sat Flow, veh/h	3456	3554	1585	1781	3014	616	3456	2167	1254	1781	3554	1585
Grp Volume(v), veh/h	188	832	404	56	709	674	527	254	243	88	47	200
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1759	1728	1777	1645	1781	1777	1585
Q Serve(g_s), s	5.5	0.0	0.0	3.7	0.0	0.0	18.2	17.0	17.5	5.5	1.4	13.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0	3.7	0.0	0.0	18.2	17.0	17.5	5.5	1.4	13.0
Prop In Lane	1.00		1.00	1.00		0.35	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	158	1806	806	72	940	885	601	320	296	216	453	202
V/C Ratio(X)	1.19	0.46	0.50	0.78	0.75	0.76	0.88	0.79	0.82	0.41	0.10	0.99
Avail Cap(c_a), veh/h	158	1806	806	132	940	885	677	431	399	216	536	239
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	0.0	0.0	54.6	0.0	0.0	55.3	54.2	54.5	48.8	46.3	38.8
Incr Delay (d2), s/veh	128.2	0.8	2.1	16.4	5.6	6.2	11.5	7.2	9.4	1.2	0.1	52.1
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	5.1	0.2	0.5	1.9	1.5	1.5	9.4	8.8	8.5	2.5	0.6	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	182.7	0.8	2.1	71.1	5.6	6.2	66.8	61.5	63.9	50.0	46.4	90.9
LnGrp LOS	F	A	A	E	A	A	E	E	E	D	D	F
Approach Vol, veh/h		1424			1439			1024			335	
Approach Delay, s/veh		25.2			8.4			64.8			73.9	
Approach LOS		C			A			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	65.5	25.4	19.8	10.0	64.8	19.0	26.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.9	51.5	23.5	18.1	5.5	54.9	12.5	29.1				
Max Q Clear Time (g_c+I1), s	5.7	2.0	20.2	15.0	7.5	2.0	7.5	19.5				
Green Ext Time (p_c), s	0.0	9.5	0.7	0.3	0.0	14.7	0.1	2.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			32.9									
HCM 6th LOS			C									

Timings  
4: Beckwith Av. & Singleton Rd.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

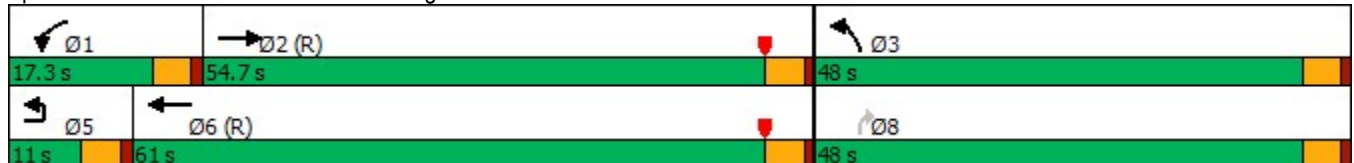


Lane Group	EBU	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕	↖	↗	↖	↗
Traffic Volume (vph)	31	884	91	989	429	104
Future Volume (vph)	31	884	91	989	429	104
Turn Type	Prot	NA	Prot	NA	Prot	Perm
Protected Phases	5	2	1	6	3	
Permitted Phases						8
Detector Phase	5	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	11.0	54.7	17.3	61.0	48.0	48.0
Total Split (%)	9.2%	45.6%	14.4%	50.8%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	C-Max	None	Max
Act Effct Green (s)	6.3	52.2	10.8	60.9	43.5	43.5
Actuated g/C Ratio	0.05	0.44	0.09	0.51	0.36	0.36
v/c Ratio	0.34	0.70	0.58	0.55	0.67	0.16
Control Delay	70.4	17.8	57.2	17.9	38.4	5.5
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	70.4	17.8	57.2	18.0	38.4	5.5
LOS	E	B	E	B	D	A
Approach Delay		19.3		21.3	32.0	
Approach LOS		B		C	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 110.2 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 22.6  
 Intersection Capacity Utilization 70.1%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕		↕	↕	↕	↕
Traffic Volume (veh/h)	31	884	177	91	989	429	104
Future Volume (veh/h)	31	884	177	91	989	429	104
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		884	177	91	989	429	104
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1653	331	115	2353	468	417
Arrive On Green		1.00	1.00	0.06	0.66	0.26	0.26
Sat Flow, veh/h		3044	591	1781	3647	1781	1585
Grp Volume(v), veh/h		532	529	91	989	429	104
Grp Sat Flow(s),veh/h/ln		1777	1764	1781	1777	1781	1585
Q Serve(g_s), s		0.0	0.0	6.0	15.6	28.1	6.2
Cycle Q Clear(g_c), s		0.0	0.0	6.0	15.6	28.1	6.2
Prop In Lane			0.33	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		996	988	115	2353	468	417
V/C Ratio(X)		0.53	0.53	0.79	0.42	0.92	0.25
Avail Cap(c_a), veh/h		996	988	190	2353	646	575
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	55.4	9.5	43.0	34.9
Incr Delay (d2), s/veh		2.1	2.1	11.6	0.6	14.4	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.6	0.6	3.1	5.9	14.0	2.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		2.1	2.1	67.0	10.0	57.4	35.2
LnGrp LOS		A	A	E	B	E	D
Approach Vol, veh/h		1061			1080	533	
Approach Delay, s/veh		2.1			14.8	53.1	
Approach LOS		A			B	D	
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.2	71.7				84.0	36.0
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	12.8	50.2				56.5	43.5
Max Q Clear Time (g_c+I1), s	8.0	2.0				17.6	30.1
Green Ext Time (p_c), s	0.1	9.2				8.9	1.5

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

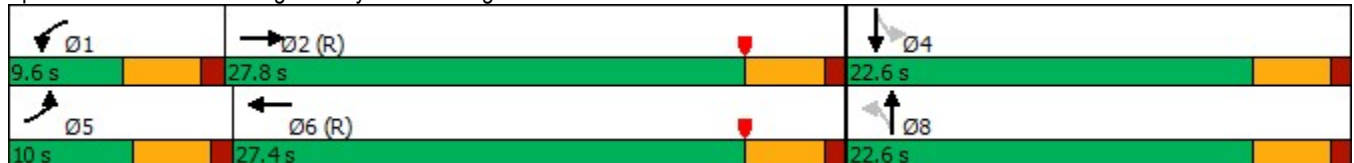


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↙	↕
Traffic Volume (vph)	42	912	13	858	91	13	25	5
Future Volume (vph)	42	912	13	858	91	13	25	5
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	27.8	9.6	27.4	22.6	22.6	22.6	22.6
Total Split (%)	16.7%	46.3%	16.0%	45.7%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.5	31.0	5.1	28.9	18.1	18.1	18.1	18.1
Actuated g/C Ratio	0.09	0.52	0.08	0.48	0.30	0.30	0.30	0.30
v/c Ratio	0.26	0.52	0.09	0.51	0.24	0.07	0.06	0.24
Control Delay	25.0	22.8	26.8	13.2	17.9	9.3	15.5	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	22.8	26.8	13.2	17.9	9.3	15.5	5.1
LOS	C	C	C	B	B	A	B	A
Approach Delay		22.9		13.4		15.4		6.7
Approach LOS		C		B		B		A

Intersection Summary





















Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.52  
 Intersection Signal Delay: 17.4  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.1%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	912	34	13	858	15	91	13	24	25	5	130
Future Volume (veh/h)	42	912	34	13	858	15	91	13	24	25	5	130
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	42	912	34	13	858	15	91	13	24	25	5	130
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1597	60	29	1542	27	417	178	328	512	18	463
Arrive On Green	0.04	0.46	0.46	0.02	0.43	0.43	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3494	130	1781	3573	62	1254	588	1086	1371	59	1535
Grp Volume(v), veh/h	42	464	482	13	427	446	91	0	37	25	0	135
Grp Sat Flow(s),veh/h/ln	1781	1777	1847	1781	1777	1859	1254	0	1675	1371	0	1594
Q Serve(g_s), s	1.4	11.5	11.5	0.4	10.8	10.8	3.6	0.0	0.9	0.8	0.0	3.9
Cycle Q Clear(g_c), s	1.4	11.5	11.5	0.4	10.8	10.8	7.5	0.0	0.9	1.7	0.0	3.9
Prop In Lane	1.00		0.07	1.00		0.03	1.00		0.65	1.00		0.96
Lane Grp Cap(c), veh/h	75	812	844	29	766	802	417	0	505	512	0	481
V/C Ratio(X)	0.56	0.57	0.57	0.45	0.56	0.56	0.22	0.00	0.07	0.05	0.00	0.28
Avail Cap(c_a), veh/h	163	812	844	151	766	802	417	0	505	512	0	481
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(l)	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	28.2	12.0	12.0	29.2	12.8	12.8	18.8	0.0	15.0	15.6	0.0	16.0
Incr Delay (d2), s/veh	6.5	2.9	2.8	10.5	2.9	2.8	1.2	0.0	0.3	0.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.5	4.7	0.3	4.3	4.5	1.1	0.0	0.4	0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	14.9	14.8	39.8	15.7	15.5	20.0	0.0	15.2	15.8	0.0	17.4
LnGrp LOS	C	B	B	D	B	B	C	A	B	B	A	B
Approach Vol, veh/h		988			886			128			160	
Approach Delay, s/veh		15.7			16.0			18.6			17.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	31.9		22.6	7.0	30.4		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.5	22.9		18.1				
Max Q Clear Time (g_c+I1), s	2.4	13.5		5.9	3.4	12.8		9.5				
Green Ext Time (p_c), s	0.0	4.2		0.6	0.0	4.0		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				16.1								
HCM 6th LOS				B								

Timings  
6: Calimesa Bl. & 5th St.

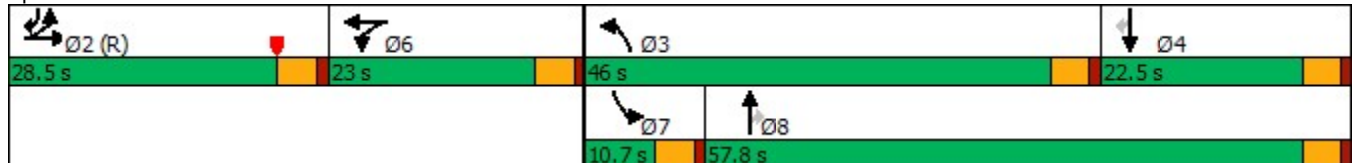
HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	265	411	38	472	1110	558	234	28	186	497
Future Volume (vph)	265	411	38	472	1110	558	234	28	186	497
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	28.5	28.5	23.0	23.0	46.0	57.8	57.8	10.7	22.5	28.5
Total Split (%)	23.8%	23.8%	19.2%	19.2%	38.3%	48.2%	48.2%	8.9%	18.8%	23.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	24.0	24.0	18.4	18.4	40.9	57.7	57.7	6.1	18.7	47.2
Actuated g/C Ratio	0.20	0.20	0.15	0.15	0.34	0.48	0.48	0.05	0.16	0.39
v/c Ratio	0.74	0.83	0.14	0.91	0.95	0.62	0.29	0.31	0.64	0.73
Control Delay	60.0	55.6	45.5	72.5	52.0	24.8	11.4	64.4	59.0	32.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay	60.0	55.6	45.5	72.5	52.0	25.2	11.4	64.4	59.0	32.4
LOS	E	E	D	E	D	C	B	E	E	C
Approach Delay		56.9		70.6		39.1			40.6	
Approach LOS		E		E		D			D	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 88.5 (74%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 47.3  
 Intersection Capacity Utilization 87.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	411	120	38	472	23	1110	558	234	28	186	497
Future Volume (veh/h)	265	411	120	38	472	23	1110	558	234	28	186	497
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	249	434	70	38	472	13	1110	558	134	28	186	267
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	377	667	107	267	530	15	1168	866	734	45	281	574
Arrive On Green	0.21	0.21	0.21	0.15	0.15	0.15	0.34	0.46	0.46	0.03	0.15	0.15
Sat Flow, veh/h	1781	3146	504	1781	3533	97	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	249	257	247	38	237	248	1110	558	134	28	186	267
Grp Sat Flow(s),veh/h/ln	1781	1870	1780	1781	1777	1853	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	15.4	15.1	15.3	2.2	15.7	15.8	37.6	27.4	6.0	1.9	11.3	15.5
Cycle Q Clear(g_c), s	15.4	15.1	15.3	2.2	15.7	15.8	37.6	27.4	6.0	1.9	11.3	15.5
Prop In Lane	1.00		0.28	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	377	396	377	267	267	278	1168	866	734	45	281	574
V/C Ratio(X)	0.66	0.65	0.66	0.14	0.89	0.89	0.95	0.64	0.18	0.62	0.66	0.47
Avail Cap(c_a), veh/h	377	396	377	275	274	286	1195	866	734	92	281	574
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	43.3	43.2	43.3	44.3	50.0	50.0	38.7	24.7	18.9	57.9	48.1	29.4
Incr Delay (d2), s/veh	8.7	8.0	8.6	0.2	27.6	27.2	15.4	3.7	0.5	13.2	11.7	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	7.8	7.6	1.0	9.0	9.4	18.0	12.7	2.3	1.0	6.1	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	51.2	51.9	44.5	77.7	77.2	54.2	28.4	19.5	71.1	59.9	32.1
LnGrp LOS	D	D	D	D	E	E	D	C	B	E	E	C
Approach Vol, veh/h		753			523			1802			481	
Approach Delay, s/veh		51.7			75.1			43.6			45.1	
Approach LOS		D			E			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.9	45.1	22.5		22.5	7.5	60.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.0	41.5	18.0		18.5	6.2	53.3				
Max Q Clear Time (g_c+I1), s		17.4	39.6	17.5		17.8	3.9	29.4				
Green Ext Time (p_c), s		2.2	1.0	0.1		0.2	0.0	4.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				50.1								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												



Timings  
7: Roberts Rd. & Cherry Valley Bl.

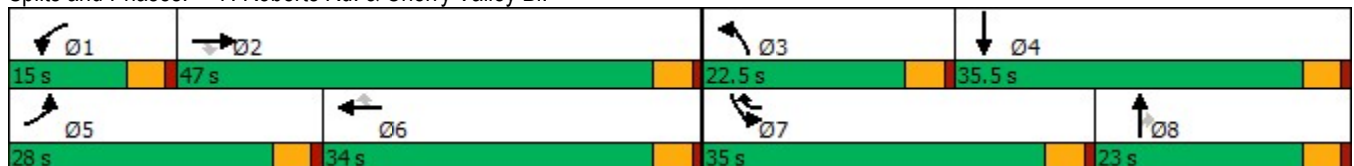
HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	422	605	25	149	536	409	13	28	141	579	25
Future Volume (vph)	422	605	25	149	536	409	13	28	141	579	25
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	47.0	47.0	15.0	34.0	35.0	22.5	23.0	23.0	35.0	35.5
Total Split (%)	23.3%	39.2%	39.2%	12.5%	28.3%	29.2%	18.8%	19.2%	19.2%	29.2%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	18.2	30.8	30.8	9.4	22.0	57.2	18.1	18.6	18.6	30.7	31.2
Actuated g/C Ratio	0.17	0.29	0.29	0.09	0.20	0.53	0.17	0.17	0.17	0.29	0.29
v/c Ratio	0.73	0.60	0.05	0.50	0.74	0.42	0.04	0.09	0.34	0.59	0.50
Control Delay	50.7	35.3	0.2	54.5	47.2	6.0	42.0	41.7	5.2	37.4	7.9
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	50.7	35.3	0.2	54.5	47.2	6.0	42.0	41.7	5.2	37.4	7.9
LOS	D	D	A	D	D	A	D	D	A	D	A
Approach Delay		40.7			32.8			13.4			26.4
Approach LOS		D			C			B			C

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 107.6  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 32.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 61.3%  
 ICU Level of Service B  
 Analysis Period (min) 15

























Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	605	25	149	536	409	13	28	141	579	25	319
Future Volume (veh/h)	422	605	25	149	536	409	13	28	141	579	25	319
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	422	605	25	149	536	409	13	28	141	579	25	319
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	1094	488	213	790	807	302	326	276	992	34	434
Arrive On Green	0.15	0.31	0.31	0.06	0.22	0.22	0.17	0.17	0.17	0.29	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	116	1486
Grp Volume(v), veh/h	422	605	25	149	536	409	13	28	141	579	0	344
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1603
Q Serve(g_s), s	12.6	15.1	1.2	4.5	14.7	18.1	0.6	1.3	8.6	15.2	0.0	20.6
Cycle Q Clear(g_c), s	12.6	15.1	1.2	4.5	14.7	18.1	0.6	1.3	8.6	15.2	0.0	20.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	509	1094	488	213	790	807	302	326	276	992	0	468
V/C Ratio(X)	0.83	0.55	0.05	0.70	0.68	0.51	0.04	0.09	0.51	0.58	0.00	0.74
Avail Cap(c_a), veh/h	764	1421	634	341	987	895	302	326	276	992	0	468
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(l)	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	44.0	30.7	25.9	48.9	37.9	17.2	36.9	36.8	39.8	32.4	0.0	33.9
Incr Delay (d2), s/veh	4.8	0.4	0.0	4.1	1.4	0.5	0.3	0.5	6.6	2.5	0.0	9.9
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	5.6	6.4	0.5	2.0	6.4	6.5	0.3	0.7	3.8	6.7	0.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	31.1	25.9	53.0	39.2	17.7	37.2	37.3	46.4	35.0	0.0	43.8
LnGrp LOS	D	C	C	D	D	B	D	D	D	C	A	D
Approach Vol, veh/h		1052			1094			182			923	
Approach Delay, s/veh		38.1			33.1			44.3			38.3	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	37.2	22.5	35.5	20.1	28.1	35.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	42.5	18.0	31.0	23.5	29.5	30.5	18.5				
Max Q Clear Time (g_c+I1), s	6.5	17.1	2.6	22.6	14.6	20.1	17.2	10.6				
Green Ext Time (p_c), s	0.1	4.3	0.0	1.4	1.0	3.5	1.9	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			36.8									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

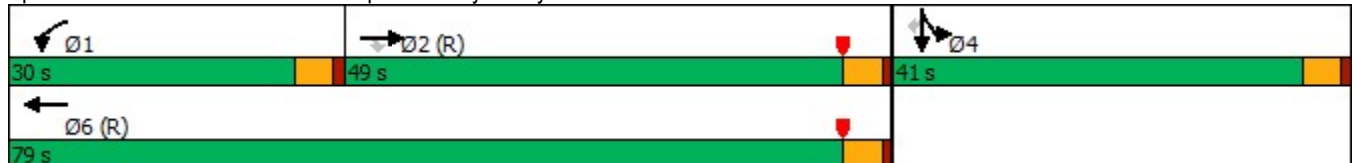


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↙↘	↑↑	↓	↙↘
Traffic Volume (vph)	1108	219	608	598	0	496
Future Volume (vph)	1108	219	608	598	0	496
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	49.0	49.0	30.0	79.0	41.0	41.0
Total Split (%)	40.8%	40.8%	25.0%	65.8%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	45.7	45.7	24.3	74.5	36.5	36.5
Actuated g/C Ratio	0.38	0.38	0.20	0.62	0.30	0.30
v/c Ratio	0.82	0.32	0.87	0.27	0.82	0.42
Control Delay	40.0	12.8	59.2	19.8	52.5	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	12.8	59.2	19.8	52.5	3.8
LOS	D	B	E	B	D	A
Approach Delay	35.5			39.7	26.7	
Approach LOS	D			D	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 104.5 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 34.6  
 Intersection Capacity Utilization 98.5%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service F

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



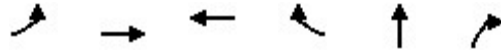
HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑						↖	↗↗
Traffic Volume (veh/h)	0	1108	219	608	598	0	0	0	0	440	0	496
Future Volume (veh/h)	0	1108	219	608	598	0	0	0	0	440	0	496
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	1108	219	608	598	0				440	0	496
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1381	616	673	2206	0				542	0	849
Arrive On Green	0.00	0.39	0.39	0.19	0.62	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1108	219	608	598	0				440	0	496
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	33.2	11.8	20.6	9.2	0.0				27.4	0.0	18.1
Cycle Q Clear(g_c), s	0.0	33.2	11.8	20.6	9.2	0.0				27.4	0.0	18.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1381	616	673	2206	0				542	0	849
V/C Ratio(X)	0.00	0.80	0.36	0.90	0.27	0.00				0.81	0.00	0.58
Avail Cap(c_a), veh/h	0	1381	616	734	2206	0				542	0	849
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	0.80	0.80	0.43	0.43	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	32.6	26.0	47.2	10.4	0.0				38.6	0.0	35.3
Incr Delay (d2), s/veh	0.0	4.0	1.3	6.8	0.1	0.0				12.5	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.7	4.6	9.4	3.5	0.0				13.7	0.0	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.6	27.3	54.0	10.5	0.0				51.1	0.0	38.3
LnGrp LOS	A	D	C	D	B	A				D	A	D
Approach Vol, veh/h		1327			1206						936	
Approach Delay, s/veh		35.1			32.4						44.3	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	27.9	51.1		41.0		79.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	25.5	44.5		36.5		74.5						
Max Q Clear Time (g_c+I1), s	22.6	35.2		29.4		11.2						
Green Ext Time (p_c), s	0.7	5.4		2.9		4.5						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				36.7								
HCM 6th LOS				D								

Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

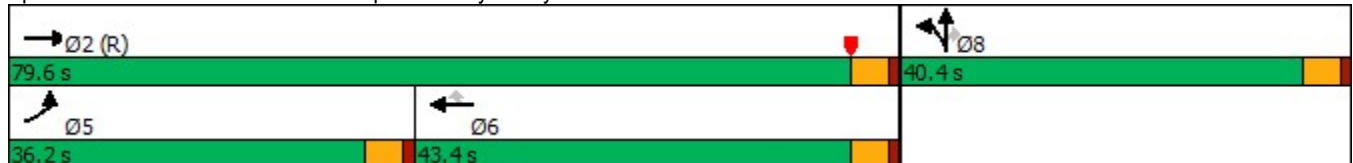


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	778	770	1001	652	12	623
Future Volume (vph)	778	770	1001	652	12	623
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	36.2	79.6	43.4	43.4	40.4	40.4
Total Split (%)	30.2%	66.3%	36.2%	36.2%	33.7%	33.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	None	None	Max	Max
Act Effct Green (s)	30.2	75.1	40.4	40.4	35.9	35.9
Actuated g/C Ratio	0.25	0.63	0.34	0.34	0.30	0.30
v/c Ratio	0.90	0.35	0.84	0.65	0.85	0.67
Control Delay	83.7	20.6	29.4	2.7	52.9	22.7
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	83.7	20.6	29.4	2.7	52.9	22.7
LOS	F	C	C	A	D	C
Approach Delay		52.3	18.9		38.3	
Approach LOS		D	B		D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 35.7  
 Intersection Capacity Utilization 98.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑	↔		↔	↔			
Traffic Volume (veh/h)	778	770	0	0	1001	652	204	12	623	0	0	0
Future Volume (veh/h)	778	770	0	0	1001	652	204	12	623	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	778	770	0	0	1001	652	204	317	420			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	836	2224	0	0	1231	549	215	334	474			
Arrive On Green	0.40	1.00	0.00	0.00	0.69	0.69	0.30	0.30	0.30			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	718	1116	1585			
Grp Volume(v), veh/h	778	770	0	0	1001	652	521	0	420			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1834	0	1585			
Q Serve(g_s), s	25.8	0.0	0.0	0.0	23.8	41.6	33.4	0.0	30.3			
Cycle Q Clear(g_c), s	25.8	0.0	0.0	0.0	23.8	41.6	33.4	0.0	30.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.39		1.00			
Lane Grp Cap(c), veh/h	836	2224	0	0	1231	549	549	0	474			
V/C Ratio(X)	0.93	0.35	0.00	0.00	0.81	1.19	0.95	0.00	0.89			
Avail Cap(c_a), veh/h	913	2224	0	0	1231	549	549	0	474			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.46	0.46	0.00	0.00	0.41	0.41	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.8	0.0	0.0	0.0	15.7	18.4	41.2	0.0	40.1			
Incr Delay (d2), s/veh	8.1	0.2	0.0	0.0	1.8	92.3	27.7	0.0	20.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.1	0.1	0.0	0.0	5.4	21.3	19.1	0.0	14.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	0.2	0.0	0.0	17.5	110.7	68.9	0.0	61.0			
LnGrp LOS	D	A	A	A	B	F	E	A	E			
Approach Vol, veh/h		1548			1653			941				
Approach Delay, s/veh		21.6			54.3			65.4				
Approach LOS		C			D			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.6			33.5	46.1		40.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		75.1			31.7	38.9		35.9				
Max Q Clear Time (g_c+I1), s		2.0			27.8	43.6		35.4				
Green Ext Time (p_c), s		6.3			1.2	0.0		0.3				

Intersection Summary

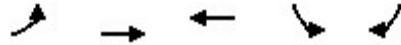
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

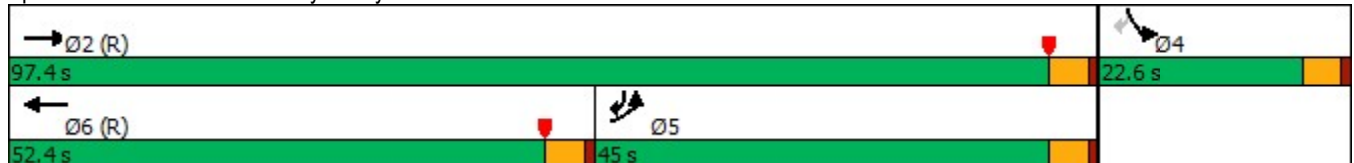


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑↑	↑↑↔	↘	↗
Traffic Volume (vph)	565	829	1099	119	554
Future Volume (vph)	565	829	1099	119	554
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	45.0	97.4	52.4	22.6	45.0
Total Split (%)	37.5%	81.2%	43.7%	18.8%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	40.5	92.9	47.9	18.1	63.1
Actuated g/C Ratio	0.34	0.77	0.40	0.15	0.53
v/c Ratio	0.95	0.30	0.93	0.45	0.66
Control Delay	65.6	4.3	46.7	53.5	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	65.6	4.3	46.7	53.5	24.8
LOS	E	A	D	D	C
Approach Delay		29.1	46.7	29.8	
Approach LOS		C	D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 107.9 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 36.1  
 Intersection Capacity Utilization 85.8%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service E

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	565	829	1099	196	119	554
Future Volume (veh/h)	565	829	1099	196	119	554
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	565	829	1099	196	119	554
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	601	2751	1203	214	269	774
Arrive On Green	0.68	1.00	0.40	0.40	0.15	0.15
Sat Flow, veh/h	1781	3647	3108	536	1781	1585
Grp Volume(v), veh/h	565	829	646	649	119	554
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1774	1781	1585
Q Serve(g_s), s	33.8	0.0	41.2	41.6	7.3	0.0
Cycle Q Clear(g_c), s	33.8	0.0	41.2	41.6	7.3	0.0
Prop In Lane	1.00			0.30	1.00	1.00
Lane Grp Cap(c), veh/h	601	2751	709	708	269	774
V/C Ratio(X)	0.94	0.30	0.91	0.92	0.44	0.72
Avail Cap(c_a), veh/h	601	2751	709	708	269	774
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	34.0	34.2	46.4	24.1
Incr Delay (d2), s/veh	21.2	0.3	18.0	18.6	5.2	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	0.1	20.7	21.0	3.6	19.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.6	0.3	52.0	52.8	51.6	29.8
LnGrp LOS	D	A	D	D	D	C
Approach Vol, veh/h		1394	1295		673	
Approach Delay, s/veh		16.2	52.4		33.6	
Approach LOS		B	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	45.0	52.4
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	40.5	47.9
Max Q Clear Time (g_c+I1), s		2.0		9.3	35.8	43.6
Green Ext Time (p_c), s		6.9		1.8	0.9	2.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			33.6			
HCM 6th LOS			C			



Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)

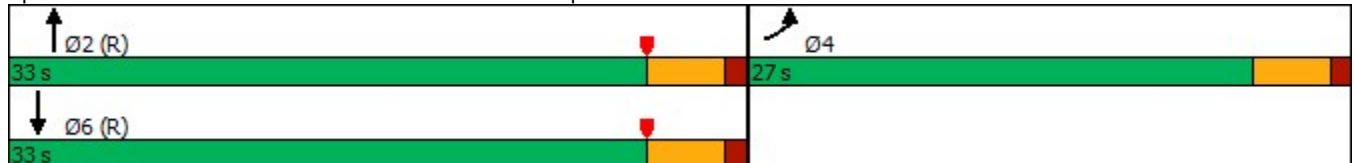


Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	585	1494	291
Future Volume (vph)	585	1494	291
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	27.0	33.0	33.0
Total Split (%)	45.0%	55.0%	55.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	21.8	29.2	29.2
Actuated g/C Ratio	0.36	0.49	0.49
v/c Ratio	0.91	0.82	0.32
Control Delay	40.2	18.7	14.4
Queue Delay	0.0	0.0	0.0
Total Delay	40.2	18.7	14.4
LOS	D	B	B
Approach Delay	40.2	18.7	14.4
Approach LOS	D	B	B

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 23.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 81.4%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp





HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑	
Traffic Volume (veh/h)	585	3	0	1494	291	0
Future Volume (veh/h)	585	3	0	1494	291	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	585	3	0	1494	291	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	632	3	0	1843	922	0
Arrive On Green	0.36	0.36	0.00	0.49	0.49	0.00
Sat Flow, veh/h	1768	9	0	3741	1870	0
Grp Volume(v), veh/h	589	0	0	1494	291	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1870	1870	0
Q Serve(g_s), s	19.1	0.0	0.0	20.2	5.6	0.0
Cycle Q Clear(g_c), s	19.1	0.0	0.0	20.2	5.6	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	636	0	0	1843	922	0
V/C Ratio(X)	0.93	0.00	0.00	0.81	0.32	0.00
Avail Cap(c_a), veh/h	668	0	0	1843	922	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	12.9	9.1	0.0
Incr Delay (d2), s/veh	18.6	0.0	0.0	4.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	0.0	0.0	7.7	2.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.1	0.0	0.0	16.8	10.0	0.0
LnGrp LOS	D	A	A	B	B	A
Approach Vol, veh/h	589			1494	291	
Approach Delay, s/veh	37.1			16.8	10.0	
Approach LOS	D			B	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		34.1		25.9		34.1
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		28.5		22.5		28.5
Max Q Clear Time (g_c+I1), s		22.2		21.1		7.6
Green Ext Time (p_c), s		4.6		0.4		1.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			21.0			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
12: Roberts Rd. & Singleton Rd.

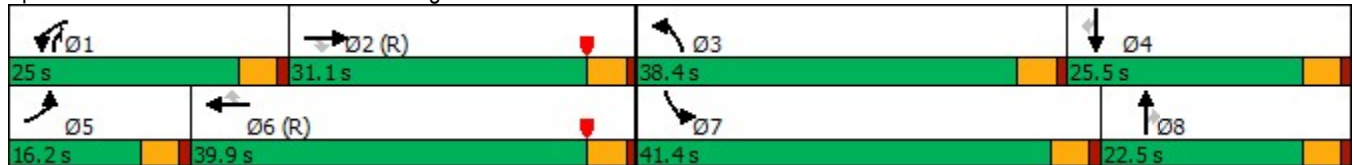
HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	768	118	311	650	232	419	252	571	531	245	158
Future Volume (vph)	76	768	118	311	650	232	419	252	571	531	245	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	16.2	31.1	31.1	25.0	39.9	39.9	38.4	22.5	25.0	41.4	25.5	25.5
Total Split (%)	13.5%	25.9%	25.9%	20.8%	33.3%	33.3%	32.0%	18.8%	20.8%	34.5%	21.3%	21.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	9.9	26.8	26.8	24.7	43.8	43.8	31.5	13.6	42.8	36.9	19.1	19.1
Actuated g/C Ratio	0.08	0.22	0.22	0.21	0.36	0.36	0.26	0.11	0.36	0.31	0.16	0.16
v/c Ratio	0.52	0.92	0.26	0.43	0.48	0.33	0.90	0.60	0.94	0.98	0.41	0.41
Control Delay	65.2	63.4	5.9	46.5	46.5	18.1	66.4	56.2	58.4	74.8	48.0	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	63.4	5.9	46.5	46.5	18.1	66.4	56.2	58.4	74.8	48.0	10.1
LOS	E	E	A	D	D	B	E	E	E	E	D	B
Approach Delay		56.5			41.0			60.6			56.8	
Approach LOS		E			D			E			E	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 46 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 53.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 97.3%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

HY (2045) w/ Scenario 2 AM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	768	118	311	650	232	419	252	571	531	245	158
Future Volume (veh/h)	76	768	118	311	650	232	419	252	571	531	245	158
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	76	768	59	311	650	117	419	252	286	531	245	83
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1060	449	389	1264	536	448	561	411	548	770	326
Arrive On Green	0.05	0.28	0.28	0.04	0.11	0.11	0.25	0.15	0.15	0.31	0.21	0.21
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	76	768	59	311	650	117	419	252	286	531	245	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.1	22.2	3.3	10.4	19.7	8.1	27.6	7.4	18.0	35.3	6.7	5.3
Cycle Q Clear(g_c), s	5.1	22.2	3.3	10.4	19.7	8.1	27.6	7.4	18.0	35.3	6.7	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1060	449	389	1264	536	448	561	411	548	770	326
V/C Ratio(X)	0.78	0.72	0.13	0.80	0.51	0.22	0.93	0.45	0.70	0.97	0.32	0.25
Avail Cap(c_a), veh/h	174	1060	449	609	1264	536	503	561	411	548	770	326
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	38.8	32.0	56.5	44.0	38.9	43.9	46.5	40.2	41.0	40.5	39.9
Incr Delay (d2), s/veh	12.7	4.3	0.6	4.0	1.4	0.9	23.5	0.6	5.1	30.7	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.8	1.4	5.2	10.1	3.5	15.0	3.5	8.2	19.9	3.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	43.1	32.6	60.5	45.5	39.8	67.4	47.0	45.3	71.7	40.7	40.3
LnGrp LOS	E	D	C	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		903			1078			957			859	
Approach Delay, s/veh		44.6			49.2			55.4			59.8	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	38.5	34.7	29.2	11.0	45.1	41.4	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.5	26.6	33.9	21.0	11.7	35.4	36.9	18.0				
Max Q Clear Time (g_c+I1), s	12.4	24.2	29.6	8.7	7.1	21.7	37.3	20.0				
Green Ext Time (p_c), s	0.7	1.2	0.6	1.4	0.1	4.1	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			52.1									
HCM 6th LOS			D									

Timings  
1: Singleton Rd. & I-10 EB Ramps

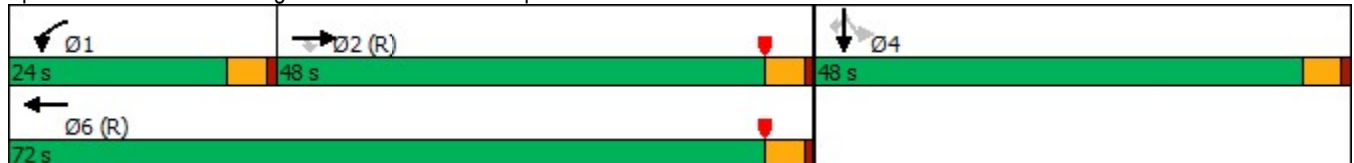
HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

	→	↘	↙	←	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘	↕	↑
Traffic Volume (vph)	1134	652	495	1148	890	0	644
Future Volume (vph)	1134	652	495	1148	890	0	644
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	48.0	48.0	24.0	72.0	48.0	48.0	48.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	43.8	43.8	19.2	67.5	43.5	43.5	43.5
Actuated g/C Ratio	0.36	0.36	0.16	0.56	0.36	0.36	0.36
v/c Ratio	0.88	0.66	0.90	0.58	0.88	0.83	0.82
Control Delay	39.6	9.2	82.0	25.4	52.9	44.4	42.0
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Total Delay	39.6	9.2	82.0	25.8	52.9	44.4	42.0
LOS	D	A	F	C	D	D	D
Approach Delay	28.5			42.7		46.6	
Approach LOS	C			D		D	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 97.3 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 38.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 102.6%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
1: Singleton Rd. & I-10 EB Ramps

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↗↘	↑↑					↘	↕	↗
Traffic Volume (veh/h)	0	1134	652	495	1148	0	0	0	0	890	0	644
Future Volume (veh/h)	0	1134	652	495	1148	0	0	0	0	890	0	644
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	1134	652	495	1148	0				1090	0	429
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1310	584	541	1999	0				1291	0	575
Arrive On Green	0.00	0.37	0.37	0.31	1.00	0.00				0.36	0.00	0.36
Sat Flow, veh/h	0	3647	1585	3456	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	1134	652	495	1148	0				1090	0	429
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	35.5	44.2	16.6	0.0	0.0				33.7	0.0	28.4
Cycle Q Clear(g_c), s	0.0	35.5	44.2	16.6	0.0	0.0				33.7	0.0	28.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1310	584	541	1999	0				1291	0	575
V/C Ratio(X)	0.00	0.87	1.12	0.92	0.57	0.00				0.84	0.00	0.75
Avail Cap(c_a), veh/h	0	1310	584	562	1999	0				1291	0	575
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.45	0.45	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.1	37.9	40.5	0.0	0.0				35.1	0.0	33.4
Incr Delay (d2), s/veh	0.0	0.8	54.7	10.4	0.5	0.0				6.9	0.0	8.6
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	15.3	25.7	6.7	0.2	0.0				15.6	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.9	92.6	50.9	0.5	0.0				42.0	0.0	42.0
LnGrp LOS	A	D	F	D	A	A				D	A	D
Approach Vol, veh/h		1786			1643						1519	
Approach Delay, s/veh		56.6			15.7						42.0	
Approach LOS		E			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.3	48.7		48.0		72.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	19.5	43.5		43.5		67.5						
Max Q Clear Time (g_c+I1), s	18.6	46.2		35.7		2.0						
Green Ext Time (p_c), s	0.2	0.0		3.9		11.9						

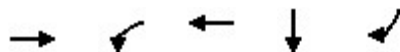
Intersection Summary

HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Timings  
1: Singleton Rd. & I-10 EB Ramps

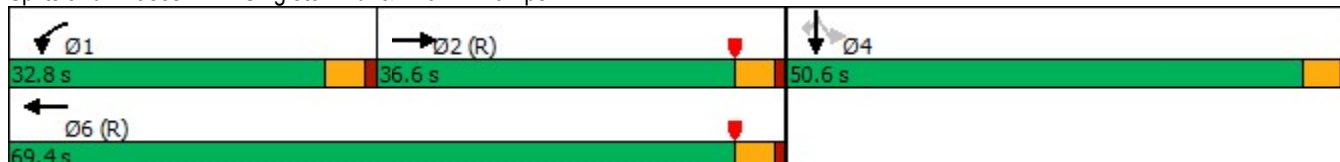


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↗	↖	↗	↖	↗
Traffic Volume (vph)	1134	495	1148	0	644
Future Volume (vph)	1134	495	1148	0	644
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	36.6	32.8	69.4	50.6	50.6
Total Split (%)	30.5%	27.3%	57.8%	42.2%	42.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	32.1	28.3	64.9	46.1	46.1
Actuated g/C Ratio	0.27	0.24	0.54	0.38	0.38
v/c Ratio	4.00	1.30	1.25	1.37	1.10
Control Delay	1366.9	183.4	142.5	205.9	100.1
Queue Delay	0.2	0.0	1.2	8.3	0.0
Total Delay	1367.1	183.4	143.7	214.2	100.1
LOS	F	F	F	F	F
Approach Delay	1367.1		155.6	166.3	
Approach LOS	F		F	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 4.00  
 Intersection Signal Delay: 594.7  
 Intersection LOS: F  
 Intersection Capacity Utilization 316.0%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↖						↖	↖
Traffic Volume (veh/h)	0	1134	652	495	1148	0	0	0	0	890	0	644
Future Volume (veh/h)	0	1134	652	495	1148	0	0	0	0	890	0	644
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	1246	716	544	1262	0				978	0	708
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	298	171	420	1012	0				684	0	609
Arrive On Green	0.00	0.27	0.27	0.47	1.00	0.00				0.38	0.00	0.38
Sat Flow, veh/h	0	1115	640	1781	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1962	544	1262	0				978	0	708
Grp Sat Flow(s),veh/h/ln	0	0	1755	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	32.1	28.3	0.0	0.0				46.1	0.0	46.1
Cycle Q Clear(g_c), s	0.0	0.0	32.1	28.3	0.0	0.0				46.1	0.0	46.1
Prop In Lane	0.00		0.36	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	469	420	1012	0				684	0	609
V/C Ratio(X)	0.00	0.00	4.18	1.29	1.25	0.00				1.43	0.00	1.16
Avail Cap(c_a), veh/h	0	0	469	420	1012	0				684	0	609
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	44.0	31.7	0.0	0.0				37.0	0.0	37.0
Incr Delay (d2), s/veh	0.0	0.0	1435.6	134.4	112.2	0.0				201.5	0.0	90.3
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	0.0	201.0	25.1	31.5	0.0				57.9	0.0	32.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	1479.6	166.1	112.2	0.0				238.5	0.0	127.3
LnGrp LOS	A	A	F	F	F	A				F	A	F
Approach Vol, veh/h		1962			1806						1686	
Approach Delay, s/veh		1479.6			128.4						191.8	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.8	36.6		50.6		69.4						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	28.3	32.1		46.1		64.9						
Max Q Clear Time (g_c+I1), s	30.3	34.1		48.1		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		21.4						

Intersection Summary

HCM 6th Ctrl Delay	634.1
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.



Timings  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

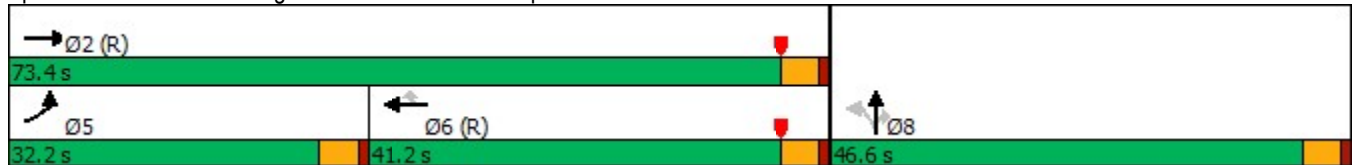


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶↶	↶↶	↶↶	↷	↶	↶↷	↷
Traffic Volume (vph)	679	1345	926	724	717	0	719
Future Volume (vph)	679	1345	926	724	717	0	719
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	6			8	
Permitted Phases				6	8		8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	32.2	73.4	41.2	41.2	46.6	46.6	46.6
Total Split (%)	26.8%	61.2%	34.3%	34.3%	38.8%	38.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	26.6	70.4	39.4	39.4	40.6	40.6	40.6
Actuated g/C Ratio	0.22	0.59	0.33	0.33	0.34	0.34	0.34
v/c Ratio	0.89	0.65	0.80	0.75	0.89	0.88	0.83
Control Delay	78.4	24.8	34.7	8.2	55.9	50.9	46.2
Queue Delay	0.0	1.3	0.0	1.5	0.0	0.4	0.3
Total Delay	78.4	26.1	34.7	9.7	55.9	51.3	46.5
LOS	E	C	C	A	E	D	D
Approach Delay		43.6	23.7			51.4	
Approach LOS		D	C			D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 96.7 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 39.4  
 Intersection Capacity Utilization 102.6%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service G

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps





HCM 6th Signalized Intersection Summary  
2: Singleton Rd. & I-10 WB Ramps

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	679	1345	0	0	926	724	717	0	719	0	0	0
Future Volume (veh/h)	679	1345	0	0	926	724	717	0	719	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	679	1345	0	0	926	724	941	0	479			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	730	2114	0	0	1230	549	1176	0	523			
Arrive On Green	0.42	1.00	0.00	0.00	0.69	0.69	0.33	0.00	0.33			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	679	1345	0	0	926	724	941	0	479			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	22.4	0.0	0.0	0.0	20.1	41.5	28.9	0.0	34.8			
Cycle Q Clear(g_c), s	22.4	0.0	0.0	0.0	20.1	41.5	28.9	0.0	34.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	730	2114	0	0	1230	549	1176	0	523			
V/C Ratio(X)	0.93	0.64	0.00	0.00	0.75	1.32	0.80	0.00	0.92			
Avail Cap(c_a), veh/h	798	2114	0	0	1230	549	1250	0	556			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.36	0.36	0.00	0.00	0.64	0.64	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.8	0.0	0.0	0.0	15.2	18.5	36.6	0.0	38.6			
Incr Delay (d2), s/veh	7.3	0.5	0.0	0.0	2.8	152.2	3.6	0.0	19.3			
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	8.3	0.2	0.0	0.0	5.2	31.2	13.0	0.0	16.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.5	0.0	0.0	18.0	170.6	40.2	0.0	57.9			
LnGrp LOS	D	A	A	A	B	F	D	A	E			
Approach Vol, veh/h		2024			1650			1420				
Approach Delay, s/veh		14.1			85.0			46.2				
Approach LOS		B			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.9			29.9	46.0		44.1				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		68.9			27.7	36.7		42.1				
Max Q Clear Time (g_c+I1), s		2.0			24.4	43.5		36.8				
Green Ext Time (p_c), s		15.8			0.9	0.0		2.8				









Intersection Summary

HCM 6th Ctrl Delay	46.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	679	1345	926	0
Future Volume (vph)	679	1345	926	0
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5
Total Split (s)	22.0	77.0	55.0	43.0
Total Split (%)	18.3%	64.2%	45.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	17.5	72.5	50.5	38.5
Actuated g/C Ratio	0.15	0.60	0.42	0.32
v/c Ratio	2.86	1.30	2.36	2.69
Control Delay	856.5	167.3	636.9	785.1
Queue Delay	0.0	1.9	2.2	2.2
Total Delay	856.5	169.3	639.0	787.3
LOS	F	F	F	F
Approach Delay		399.8	639.0	787.3
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.86  
 Intersection Signal Delay: 586.0  
 Intersection LOS: F  
 Intersection Capacity Utilization 316.0%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	679	1345	0	0	926	724	717	0	719	0	0	0
Future Volume (veh/h)	679	1345	0	0	926	724	717	0	719	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	738	1462	0	0	1007	787	779	0	782			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	260	1130	0	0	409	320	269	0	270			
Arrive On Green	0.19	0.80	0.00	0.00	0.42	0.42	0.32	0.00	0.32			
Sat Flow, veh/h	1781	1870	0	0	973	760	837	0	840			
Grp Volume(v), veh/h	738	1462	0	0	0	1794	1561	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1733	1677	0	0			
Q Serve(g_s), s	17.5	72.5	0.0	0.0	0.0	50.5	38.5	0.0	0.0			
Cycle Q Clear(g_c), s	17.5	72.5	0.0	0.0	0.0	50.5	38.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.44	0.50		0.50			
Lane Grp Cap(c), veh/h	260	1130	0	0	0	730	538	0	0			
V/C Ratio(X)	2.84	1.29	0.00	0.00	0.00	2.46	2.90	0.00	0.00			
Avail Cap(c_a), veh/h	260	1130	0	0	0	730	538	0	0			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.09	0.09	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	48.4	11.8	0.0	0.0	0.0	34.8	40.8	0.0	0.0			
Incr Delay (d2), s/veh	829.4	132.8	0.0	0.0	0.0	660.8	860.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	67.3	57.2	0.0	0.0	0.0	154.6	144.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	877.8	144.6	0.0	0.0	0.0	695.5	901.2	0.0	0.0			
LnGrp LOS	F	F	A	A	A	F	F	A	A			
Approach Vol, veh/h		2200			1794			1561				
Approach Delay, s/veh		390.6			695.5			901.2				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			22.0	55.0		43.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		72.5			17.5	50.5		38.5				
Max Q Clear Time (g_c+I1), s		74.5			19.5	52.5		40.5				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					632.5							
HCM 6th LOS					F							

Timings  
3: Calimesa Bl. & Singleton Rd.

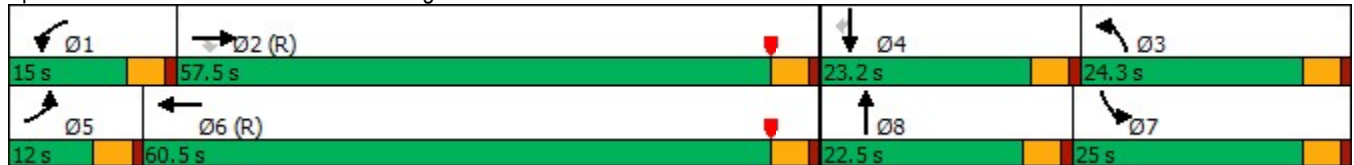
HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	174	1301	659	108	1121	371	78	225	161	268
Future Volume (vph)	174	1301	659	108	1121	371	78	225	161	268
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	12.0	57.5	57.5	15.0	60.5	24.3	22.5	25.0	23.2	23.2
Total Split (%)	10.0%	47.9%	47.9%	12.5%	50.4%	20.3%	18.8%	20.8%	19.3%	19.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	9.3	59.0	59.0	10.4	60.1	17.6	11.6	21.0	15.1	15.1
Actuated g/C Ratio	0.08	0.49	0.49	0.09	0.50	0.15	0.10	0.18	0.13	0.13
v/c Ratio	0.65	0.75	0.65	0.67	0.67	0.74	0.36	0.73	0.36	0.83
Control Delay	67.4	31.6	11.0	82.2	26.9	61.8	33.6	60.4	49.5	44.0
Queue Delay	0.0	1.7	0.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	67.4	33.3	11.6	82.2	27.1	61.8	33.6	60.4	49.5	44.0
LOS	E	C	B	F	C	E	C	E	D	D
Approach Delay		29.3			31.6		54.3		51.0	
Approach LOS		C			C		D		D	

Intersection Summary





























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 113 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 35.8  
 Intersection Capacity Utilization 77.7%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service D

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



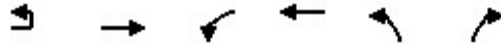
HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 			 	
Traffic Volume (veh/h)	174	1301	659	108	1121	112	371	78	56	225	161	268
Future Volume (veh/h)	174	1301	659	108	1121	112	371	78	56	225	161	268
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	174	1301	659	108	1121	112	371	78	56	225	161	268
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	1824	814	131	1756	175	439	171	113	320	483	215
Arrive On Green	0.13	1.00	1.00	0.15	1.00	1.00	0.13	0.08	0.08	0.18	0.14	0.14
Sat Flow, veh/h	3456	3554	1585	1781	3347	334	3456	2053	1351	1781	3554	1585
Grp Volume(v), veh/h	174	1301	659	108	626	607	371	67	67	225	161	268
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1810	1728	1777	1627	1781	1777	1585
Q Serve(g_s), s	5.9	0.0	0.0	7.1	0.0	0.0	12.6	4.3	4.8	14.2	4.9	13.7
Cycle Q Clear(g_c), s	5.9	0.0	0.0	7.1	0.0	0.0	12.6	4.3	4.8	14.2	4.9	13.7
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	216	1824	814	131	981	950	439	148	136	320	483	215
V/C Ratio(X)	0.81	0.71	0.81	0.82	0.64	0.64	0.85	0.45	0.50	0.70	0.33	1.24
Avail Cap(c_a), veh/h	216	1824	814	156	981	950	570	267	244	320	554	247
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	0.0	50.4	0.0	0.0	51.2	52.4	52.6	46.2	46.9	36.7
Incr Delay (d2), s/veh	13.7	1.6	5.8	25.1	3.2	3.3	9.0	2.1	2.8	6.8	0.4	142.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.4	1.3	3.9	0.9	0.9	6.0	2.0	2.1	6.9	2.2	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	1.6	5.8	75.5	3.2	3.3	60.2	54.5	55.4	53.0	47.3	179.3
LnGrp LOS	E	A	A	E	A	A	E	D	E	D	D	F
Approach Vol, veh/h		2134			1341			505			654	
Approach Delay, s/veh		8.1			9.1			58.8			103.4	
Approach LOS		A			A			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	66.1	19.7	20.8	12.0	67.4	26.1	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	53.0	19.8	18.7	7.5	56.0	20.5	18.0				
Max Q Clear Time (g_c+I1), s	9.1	2.0	14.6	15.7	7.9	2.0	16.2	6.8				
Green Ext Time (p_c), s	0.0	20.5	0.6	0.6	0.0	11.8	0.2	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.4								
HCM 6th LOS				C								

Timings  
4: Beckwith Av. & Singleton Rd.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

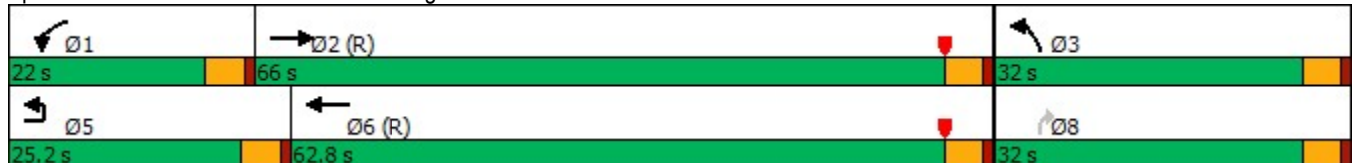


Lane Group	EBU	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕	↖	↗	↖	↗
Traffic Volume (vph)	173	971	166	910	290	130
Future Volume (vph)	173	971	166	910	290	130
Turn Type	Prot	NA	Prot	NA	Prot	Perm
Protected Phases	5	2	1	6	3	
Permitted Phases						8
Detector Phase	5	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	25.2	66.0	22.0	62.8	32.0	32.0
Total Split (%)	21.0%	55.0%	18.3%	52.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	C-Max	None	Max
Act Effct Green (s)	16.4	63.8	15.2	62.6	27.5	27.5
Actuated g/C Ratio	0.14	0.53	0.13	0.52	0.23	0.23
v/c Ratio	0.71	0.79	0.74	0.49	0.72	0.28
Control Delay	59.7	27.4	78.5	27.0	53.8	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	27.4	78.5	27.0	53.8	8.0
LOS	E	C	E	C	D	A
Approach Delay		30.9		34.9	39.6	
Approach LOS		C		C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 93.4 (78%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 33.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 78.9%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
4: Beckwith Av. & Singleton Rd.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩	↕		↩	↕	↩	↗
Traffic Volume (veh/h)	173	971	486	166	910	290	130
Future Volume (veh/h)	173	971	486	166	910	290	130
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		971	486	166	910	290	130
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1378	675	194	2640	324	289
Arrive On Green		1.00	1.00	0.11	0.74	0.18	0.18
Sat Flow, veh/h		2404	1133	1781	3647	1781	1585
Grp Volume(v), veh/h		742	715	166	910	290	130
Grp Sat Flow(s),veh/h/ln		1777	1666	1781	1777	1781	1585
Q Serve(g_s), s		0.0	0.0	11.0	10.6	19.1	8.8
Cycle Q Clear(g_c), s		0.0	0.0	11.0	10.6	19.1	8.8
Prop In Lane			0.68	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1060	994	194	2640	324	289
V/C Ratio(X)		0.70	0.72	0.85	0.34	0.89	0.45
Avail Cap(c_a), veh/h		1060	994	260	2640	408	363
HCM Platoon Ratio		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		0.0	0.0	52.5	5.3	47.9	43.7
Incr Delay (d2), s/veh		3.9	4.5	18.3	0.4	18.5	1.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.1	1.2	5.9	3.6	10.0	3.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		3.9	4.5	70.8	5.7	66.4	44.8
LnGrp LOS		A	A	E	A	E	D
Approach Vol, veh/h		1457			1076	420	
Approach Delay, s/veh		4.2			15.7	59.7	
Approach LOS		A			B	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	17.6	76.1			93.7	26.3	
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	
Max Green Setting (Gmax), s	17.5	61.5			58.3	27.5	
Max Q Clear Time (g_c+I1), s	13.0	2.0			12.6	21.1	
Green Ext Time (p_c), s	0.2	17.1			8.1	0.8	

Intersection Summary

HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

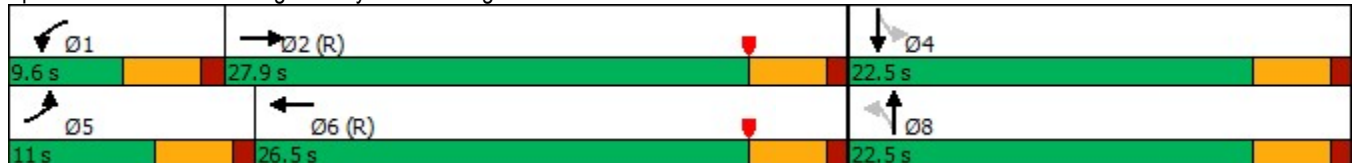


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↙	↕
Traffic Volume (vph)	110	935	34	989	28	5	20	15
Future Volume (vph)	110	935	34	989	28	5	20	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	27.9	9.6	26.5	22.5	22.5	22.5	22.5
Total Split (%)	18.3%	46.5%	16.0%	44.2%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	8.0	42.7	6.0	35.7	11.6	11.6	11.6	11.6
Actuated g/C Ratio	0.13	0.71	0.10	0.60	0.19	0.19	0.19	0.19
v/c Ratio	0.47	0.40	0.19	0.48	0.11	0.10	0.08	0.20
Control Delay	37.0	6.7	27.6	12.2	19.5	9.1	18.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	6.7	27.6	12.2	19.5	9.1	18.8	9.0
LOS	D	A	C	B	B	A	B	A
Approach Delay		9.8		12.7		13.7		11.1
Approach LOS		A		B		B		B

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.48  
 Intersection Signal Delay: 11.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 53.6%  
 ICU Level of Service A  
 Analysis Period (min) 15





















Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.





HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	935	56	34	989	17	28	5	30	20	15	59
Future Volume (veh/h)	110	935	56	34	989	17	28	5	30	20	15	59
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	110	935	56	34	989	17	28	5	30	20	15	59
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1991	119	64	1935	33	272	36	215	307	51	201
Arrive On Green	0.08	0.58	0.58	0.04	0.54	0.54	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3406	204	1781	3575	61	1326	231	1389	1373	332	1304
Grp Volume(v), veh/h	110	488	503	34	492	514	28	0	35	20	0	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1834	1781	1777	1859	1326	0	1620	1373	0	1636
Q Serve(g_s), s	3.6	9.4	9.4	1.1	10.5	10.5	1.1	0.0	1.1	0.8	0.0	2.4
Cycle Q Clear(g_c), s	3.6	9.4	9.4	1.1	10.5	10.5	3.6	0.0	1.1	1.9	0.0	2.4
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.86	1.00		0.80
Lane Grp Cap(c), veh/h	141	1038	1072	64	962	1006	272	0	250	307	0	253
V/C Ratio(X)	0.78	0.47	0.47	0.53	0.51	0.51	0.10	0.00	0.14	0.07	0.00	0.29
Avail Cap(c_a), veh/h	193	1038	1072	151	962	1006	465	0	486	506	0	491
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(l)	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	27.1	7.1	7.1	28.4	8.7	8.7	24.0	0.0	21.9	22.7	0.0	22.5
Incr Delay (d2), s/veh	13.0	1.5	1.5	6.6	1.9	1.9	0.2	0.0	0.3	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.2	3.3	0.6	3.8	3.9	0.4	0.0	0.4	0.2	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	8.7	8.6	35.0	10.7	10.6	24.2	0.0	22.2	22.8	0.0	23.1
LnGrp LOS	D	A	A	D	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1101			1040			63				94
Approach Delay, s/veh		11.8			11.4			23.1				23.0
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	39.6		13.8	9.3	37.0		13.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.4		18.0	6.5	22.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	11.4		4.4	5.6	12.5		5.6				
Green Ext Time (p_c), s	0.0	5.1		0.3	0.0	4.4		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

Timings  
6: Calimesa Bl. & 5th St.

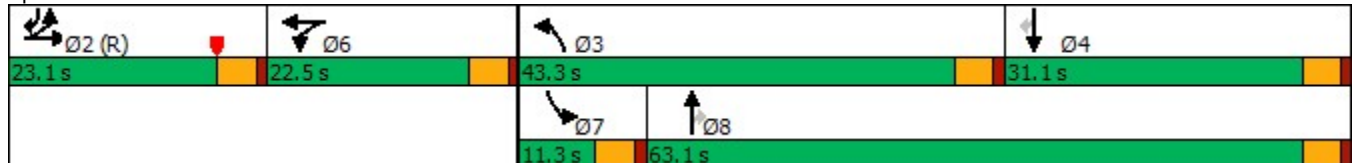
HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	214	271	104	456	1140	427	239	37	420	538
Future Volume (vph)	214	271	104	456	1140	427	239	37	420	538
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	23.1	23.1	22.5	22.5	43.3	63.1	63.1	11.3	31.1	23.1
Total Split (%)	19.3%	19.3%	18.8%	18.8%	36.1%	52.6%	52.6%	9.4%	25.9%	19.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	18.6	18.6	18.0	18.0	38.8	63.1	63.1	6.5	26.6	49.7
Actuated g/C Ratio	0.16	0.16	0.15	0.15	0.32	0.53	0.53	0.05	0.22	0.41
v/c Ratio	0.78	0.80	0.39	0.92	1.03	0.44	0.27	0.39	1.02	0.76
Control Delay	70.2	55.2	51.0	74.1	56.6	18.8	9.9	66.4	95.8	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.2	55.2	51.0	74.1	56.6	18.8	9.9	66.4	95.8	32.5
LOS	E	E	D	E	E	B	A	E	F	C
Approach Delay		59.8		70.0		41.5			60.4	
Approach LOS		E		E		D			E	

Intersection Summary























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 85 (71%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 53.2  
 Intersection Capacity Utilization 95.5%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

Splits and Phases: 6: Calimesa Bl. & 5th St.



HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	271	145	104	456	32	1140	427	239	37	420	538
Future Volume (veh/h)	214	271	145	104	456	32	1140	427	239	37	420	538
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	187	309	75	104	456	22	1140	427	124	37	420	273
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	461	110	262	508	24	1117	964	817	53	415	602
Arrive On Green	0.24	0.24	0.24	0.22	0.22	0.22	0.48	0.77	0.77	0.04	0.33	0.33
Sat Flow, veh/h	1781	2918	697	1781	3451	166	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	187	196	188	104	234	244	1140	427	124	37	420	273
Grp Sat Flow(s),veh/h/ln	1781	1870	1745	1781	1777	1840	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.4	11.4	11.7	6.0	15.4	15.5	38.8	9.4	2.4	2.5	26.6	14.8
Cycle Q Clear(g_c), s	11.4	11.4	11.7	6.0	15.4	15.5	38.8	9.4	2.4	2.5	26.6	14.8
Prop In Lane	1.00		0.40	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	295	276	262	261	271	1117	964	817	53	415	602
V/C Ratio(X)	0.66	0.66	0.68	0.40	0.90	0.90	1.02	0.44	0.15	0.70	1.01	0.45
Avail Cap(c_a), veh/h	281	295	276	267	267	276	1117	964	817	101	415	602
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(l)	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	42.9	42.9	43.0	42.2	45.9	45.9	30.9	7.7	6.9	56.8	40.0	23.8
Incr Delay (d2), s/veh	11.8	11.2	12.8	1.0	29.6	29.5	32.1	1.5	0.4	15.7	47.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	5.9	5.7	2.6	8.5	8.8	18.5	3.3	0.9	1.3	16.4	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	54.1	55.9	43.2	75.5	75.5	63.0	9.1	7.3	72.5	87.6	26.2
LnGrp LOS	D	D	E	D	E	E	F	A	A	E	F	C
Approach Vol, veh/h		571			582			1691			730	
Approach Delay, s/veh		54.9			69.7			45.3			63.9	
Approach LOS		D			E			D			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	43.3	31.1		22.1	8.0	66.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.6	38.8	26.6		18.0	6.8	58.6				
Max Q Clear Time (g_c+I1), s		13.7	40.8	28.6		17.5	4.5	11.4				
Green Ext Time (p_c), s		1.3	0.0	0.0		0.2	0.0	3.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			54.6									
HCM 6th LOS			D									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings  
7: Roberts Rd. & Cherry Valley Bl.

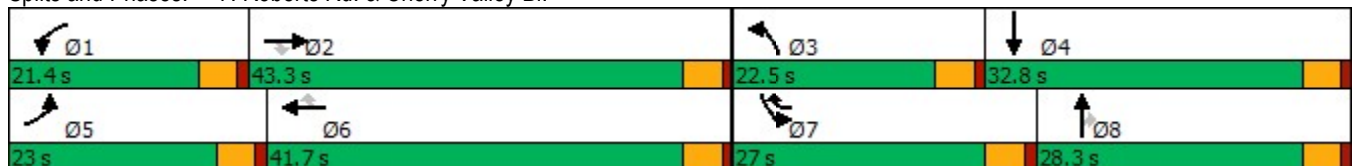
HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	343	725	29	301	801	500	29	10	163	386	13
Future Volume (vph)	343	725	29	301	801	500	29	10	163	386	13
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	43.3	43.3	21.4	41.7	27.0	22.5	28.3	28.3	27.0	32.8
Total Split (%)	19.2%	36.1%	36.1%	17.8%	34.8%	22.5%	18.8%	23.6%	23.6%	22.5%	27.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	15.7	32.5	32.5	14.4	31.1	58.3	18.1	23.9	23.9	22.6	28.4
Actuated g/C Ratio	0.14	0.29	0.29	0.13	0.28	0.52	0.16	0.21	0.21	0.20	0.25
v/c Ratio	0.71	0.70	0.05	0.68	0.81	0.53	0.10	0.03	0.35	0.55	0.58
Control Delay	55.0	39.3	0.2	55.4	44.8	11.2	44.0	38.5	8.5	44.8	8.1
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	55.0	39.3	0.2	55.4	44.8	11.2	44.0	38.5	8.5	44.8	8.1
LOS	E	D	A	E	D	B	D	D	A	D	A
Approach Delay		43.2			36.3			15.1			25.9
Approach LOS		D			D			B			C

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 111.5  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 35.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 68.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	725	29	301	801	500	29	10	163	386	13	396
Future Volume (veh/h)	343	725	29	301	801	500	29	10	163	386	13	396
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	343	725	29	301	801	500	29	10	163	386	13	396
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	1093	488	373	1047	791	291	405	343	707	13	397
Arrive On Green	0.12	0.31	0.31	0.11	0.29	0.29	0.16	0.22	0.22	0.20	0.26	0.26
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	51	1542
Grp Volume(v), veh/h	343	725	29	301	801	500	29	10	163	386	0	409
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1593
Q Serve(g_s), s	10.7	19.5	1.4	9.4	22.6	25.4	1.5	0.5	9.9	11.0	0.0	28.2
Cycle Q Clear(g_c), s	10.7	19.5	1.4	9.4	22.6	25.4	1.5	0.5	9.9	11.0	0.0	28.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	417	1093	488	373	1047	791	291	405	343	707	0	410
V/C Ratio(X)	0.82	0.66	0.06	0.81	0.76	0.63	0.10	0.02	0.48	0.55	0.00	1.00
Avail Cap(c_a), veh/h	581	1254	559	531	1202	860	291	405	343	707	0	410
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	47.2	33.1	26.9	47.9	35.3	20.1	39.1	34.0	37.6	39.2	0.0	40.8
Incr Delay (d2), s/veh	6.6	1.1	0.1	6.1	2.6	1.3	0.7	0.1	4.7	3.0	0.0	44.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.4	0.5	4.3	9.9	9.3	0.7	0.2	4.3	4.9	0.0	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	34.2	26.9	54.0	37.9	21.5	39.8	34.1	42.3	42.2	0.0	84.8
LnGrp LOS	D	C	C	D	D	C	D	C	D	D	A	F
Approach Vol, veh/h		1097			1602			202			795	
Approach Delay, s/veh		40.1			35.8			41.5			64.1	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	38.3	22.5	32.8	17.8	36.9	27.0	28.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.9	38.8	18.0	28.3	18.5	37.2	22.5	23.8				
Max Q Clear Time (g_c+I1), s	11.4	21.5	3.5	30.2	12.7	27.4	13.0	11.9				
Green Ext Time (p_c), s	0.5	4.6	0.0	0.0	0.6	5.0	1.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

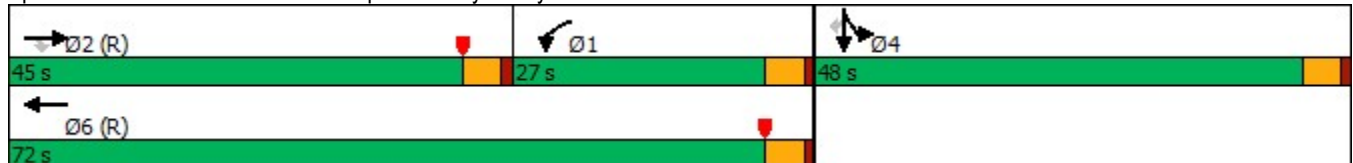


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↓	↔
Traffic Volume (vph)	1040	236	584	699	0	903
Future Volume (vph)	1040	236	584	699	0	903
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	45.0	45.0	27.0	72.0	48.0	48.0
Total Split (%)	37.5%	37.5%	22.5%	60.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	40.5	40.5	22.5	67.5	43.5	43.5
Actuated g/C Ratio	0.34	0.34	0.19	0.56	0.36	0.36
v/c Ratio	0.87	0.38	0.91	0.35	0.92	0.72
Control Delay	46.6	14.3	41.3	9.0	57.3	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	14.3	41.3	9.0	57.3	22.2
LOS	D	B	D	A	E	C
Approach Delay	40.6			23.7	36.0	
Approach LOS	D			C	D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 100.5 (84%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 33.6  
 Intersection Capacity Utilization 95.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service F

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑						↖	↘↗
Traffic Volume (veh/h)	0	1040	236	584	699	0	0	0	0	587	0	903
Future Volume (veh/h)	0	1040	236	584	699	0	0	0	0	587	0	903
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	1040	236	584	699	0				587	0	903
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1199	535	648	1999	0				646	0	1011
Arrive On Green	0.00	0.34	0.34	0.19	0.56	0.00				0.60	0.00	0.60
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1781	0	2790
Grp Volume(v), veh/h	0	1040	236	584	699	0				587	0	903
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1395
Q Serve(g_s), s	0.0	32.9	13.9	19.8	12.9	0.0				34.8	0.0	33.5
Cycle Q Clear(g_c), s	0.0	32.9	13.9	19.8	12.9	0.0				34.8	0.0	33.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1199	535	648	1999	0				646	0	1011
V/C Ratio(X)	0.00	0.87	0.44	0.90	0.35	0.00				0.91	0.00	0.89
Avail Cap(c_a), veh/h	0	1199	535	648	1999	0				646	0	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.65	1.65	1.65
Upstream Filter(l)	0.00	0.75	0.75	0.41	0.41	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.2	30.9	47.7	14.3	0.0				22.4	0.0	22.1
Incr Delay (d2), s/veh	0.0	6.6	2.0	7.5	0.2	0.0				19.0	0.0	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.0	5.6	9.1	5.0	0.0				14.5	0.0	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	43.8	32.9	55.2	14.5	0.0				41.4	0.0	34.0
LnGrp LOS	A	D	C	E	B	A				D	A	C
Approach Vol, veh/h		1276			1283						1490	
Approach Delay, s/veh		41.8			33.0						36.9	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	27.0	45.0		48.0		72.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.5	40.5		43.5		67.5						
Max Q Clear Time (g_c+I1), s	21.8	34.9		36.8		14.9						
Green Ext Time (p_c), s	0.2	3.5		4.2		5.5						

Intersection Summary

HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

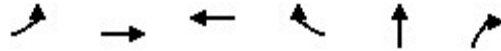
Notes

User approved volume balancing among the lanes for turning movement.



Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

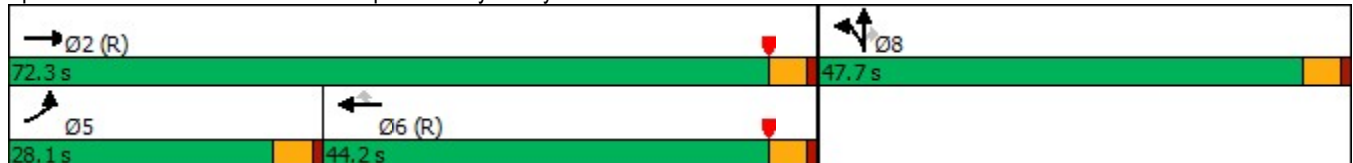


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	559	1068	1024	610	10	758
Future Volume (vph)	559	1068	1024	610	10	758
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.1	72.3	44.2	44.2	47.7	47.7
Total Split (%)	23.4%	60.3%	36.8%	36.8%	39.8%	39.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	22.6	67.8	40.7	40.7	43.2	43.2
Actuated g/C Ratio	0.19	0.56	0.34	0.34	0.36	0.36
v/c Ratio	0.87	0.53	0.85	0.61	0.87	0.84
Control Delay	74.3	9.1	43.9	11.2	49.3	42.8
Queue Delay	0.0	0.3	0.0	0.1	0.0	0.0
Total Delay	74.3	9.4	43.9	11.3	49.3	42.8
LOS	E	A	D	B	D	D
Approach Delay		31.7	31.8		46.1	
Approach LOS		C	C		D	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 95.3 (79%), 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: 35.2  
 Intersection Capacity Utilization 95.3%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.





HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

HY (2045) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑	↔		↔↔	↔			
Traffic Volume (veh/h)	559	1068	0	0	1024	610	259	10	758	0	0	0
Future Volume (veh/h)	559	1068	0	0	1024	610	259	10	758	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	559	1068	0	0	1024	610	259	377	514			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	612	2008	0	0	1246	556	269	391	571			
Arrive On Green	0.35	1.00	0.00	0.00	0.35	0.35	0.36	0.36	0.36			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	746	1087	1585			
Grp Volume(v), veh/h	559	1068	0	0	1024	610	636	0	514			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1833	0	1585			
Q Serve(g_s), s	18.5	0.0	0.0	0.0	31.5	42.1	40.8	0.0	36.9			
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	31.5	42.1	40.8	0.0	36.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.41		1.00			
Lane Grp Cap(c), veh/h	612	2008	0	0	1246	556	660	0	571			
V/C Ratio(X)	0.91	0.53	0.00	0.00	0.82	1.10	0.96	0.00	0.90			
Avail Cap(c_a), veh/h	680	2008	0	0	1246	556	660	0	571			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.37	0.37	0.00	0.00	0.31	0.31	1.00	0.00	1.00			
Uniform Delay (d), s/veh	37.9	0.0	0.0	0.0	35.6	39.0	37.6	0.0	36.4			
Incr Delay (d2), s/veh	7.1	0.4	0.0	0.0	2.0	53.4	27.2	0.0	19.8			
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	6.9	0.1	0.0	0.0	13.7	24.1	22.9	0.0	17.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	0.4	0.0	0.0	37.6	92.3	64.8	0.0	56.2			
LnGrp LOS	D	A	A	A	D	F	E	A	E			
Approach Vol, veh/h		1627			1634			1150				
Approach Delay, s/veh		15.7			58.0			61.0				
Approach LOS		B			E			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		72.3			25.7	46.6		47.7				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		67.8			23.6	39.7		43.2				
Max Q Clear Time (g_c+I1), s		2.0			20.5	44.1		42.8				
Green Ext Time (p_c), s		10.0			0.7	0.0		0.3				

Intersection Summary

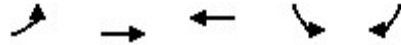
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

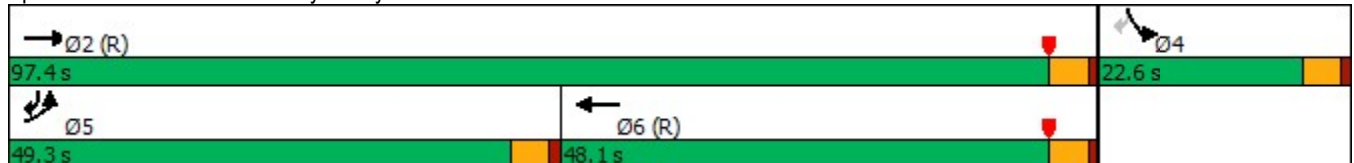


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑↑	↑↑↔	↘	↗
Traffic Volume (vph)	666	1160	1183	158	451
Future Volume (vph)	666	1160	1183	158	451
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	49.3	97.4	48.1	22.6	49.3
Total Split (%)	41.1%	81.2%	40.1%	18.8%	41.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	44.8	92.9	43.6	18.1	67.4
Actuated g/C Ratio	0.37	0.77	0.36	0.15	0.56
v/c Ratio	1.01	0.42	1.04	0.59	0.50
Control Delay	66.3	4.7	72.3	58.7	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	4.7	72.3	58.7	20.6
LOS	E	A	E	E	C
Approach Delay		27.2	72.3	30.5	
Approach LOS		C	E	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 103.6 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.04  
 Intersection Signal Delay: 43.6  
 Intersection Capacity Utilization 93.9%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.



HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.

HY (2045) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	666	1160	1183	135	158	451
Future Volume (veh/h)	666	1160	1183	135	158	451
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	666	1160	1183	135	158	451
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	665	2751	1168	133	269	831
Arrive On Green	0.75	1.00	0.36	0.36	0.15	0.15
Sat Flow, veh/h	1781	3647	3309	366	1781	1585
Grp Volume(v), veh/h	666	1160	652	666	158	451
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1804	1781	1585
Q Serve(g_s), s	44.8	0.0	43.6	43.6	9.9	18.1
Cycle Q Clear(g_c), s	44.8	0.0	43.6	43.6	9.9	18.1
Prop In Lane	1.00			0.20	1.00	1.00
Lane Grp Cap(c), veh/h	665	2751	646	656	269	831
V/C Ratio(X)	1.00	0.42	1.01	1.02	0.59	0.54
Avail Cap(c_a), veh/h	665	2751	646	656	269	831
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	38.2	38.2	47.5	19.0
Incr Delay (d2), s/veh	30.4	0.4	38.1	39.0	9.1	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	0.1	25.2	25.7	5.0	22.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.6	0.4	76.3	77.2	56.6	21.5
LnGrp LOS	F	A	F	F	E	C
Approach Vol, veh/h		1826	1318		609	
Approach Delay, s/veh		16.8	76.7		30.6	
Approach LOS		B	E		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.4		22.6	49.3	48.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.9		18.1	44.8	43.6
Max Q Clear Time (g_c+I1), s		2.0		20.1	46.8	45.6
Green Ext Time (p_c), s		11.6		0.0	0.0	0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			40.1			
HCM 6th LOS			D			

Timings  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)

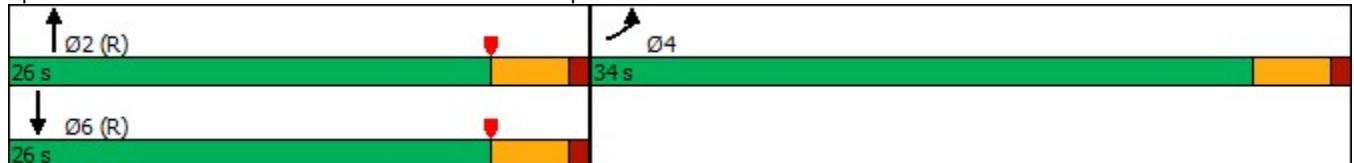


Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	1019	1305	624
Future Volume (vph)	1019	1305	624
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	34.0	26.0	26.0
Total Split (%)	56.7%	43.3%	43.3%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	29.5	21.5	21.5
Actuated g/C Ratio	0.49	0.36	0.36
v/c Ratio	1.17	0.98	0.94
Control Delay	109.2	41.3	40.2
Queue Delay	0.0	0.0	0.0
Total Delay	109.2	41.3	40.2
LOS	F	D	D
Approach Delay	109.2	41.3	40.2
Approach LOS	F	D	D

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.17  
 Intersection Signal Delay: 64.6  
 Intersection Capacity Utilization 100.1%  
 Analysis Period (min) 15  
 Intersection LOS: E  
 ICU Level of Service G

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp

HY (2045) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1019	2	0	1305	624	0
Future Volume (veh/h)	1019	2	0	1305	624	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	1019	1	0	1305	624	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	874	1	0	1340	670	0
Arrive On Green	0.71	0.49	0.00	0.54	0.54	0.00
Sat Flow, veh/h	1778	2	0	3741	1870	0
Grp Volume(v), veh/h	1021	0	0	1305	624	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1870	1870	0
Q Serve(g_s), s	29.5	0.0	0.0	20.3	18.5	0.0
Cycle Q Clear(g_c), s	29.5	0.0	0.0	20.3	18.5	0.0
Prop In Lane	1.00	0.00	0.00			0.00
Lane Grp Cap(c), veh/h	876	0	0	1340	670	0
V/C Ratio(X)	1.17	0.00	0.00	0.97	0.93	0.00
Avail Cap(c_a), veh/h	876	0	0	1340	670	0
HCM Platoon Ratio	1.45	1.00	1.00	1.50	1.50	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	13.6	13.2	0.0
Incr Delay (d2), s/veh	87.0	0.0	0.0	19.0	21.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.0	0.0	0.0	8.3	8.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	95.7	0.0	0.0	32.6	34.6	0.0
LnGrp LOS	F	A	A	C	C	A
Approach Vol, veh/h	1021			1305	624	
Approach Delay, s/veh	95.7			32.6	34.6	
Approach LOS	F			C	C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		22.3		31.5		20.5
Green Ext Time (p_c), s		0.0		0.0		0.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			54.9			
HCM 6th LOS			D			
<b>Notes</b>						
User approved volume balancing among the lanes for turning movement.						

Timings  
12: Roberts Rd. & Singleton Rd.

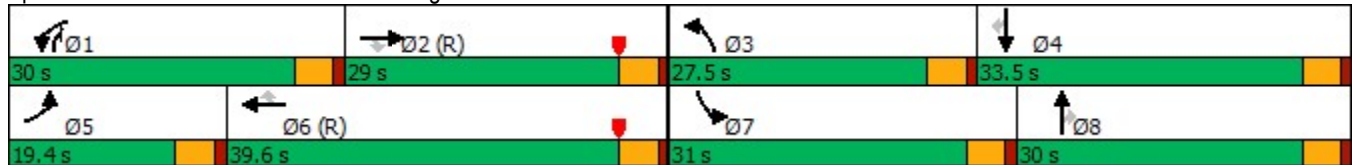
HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	799	161	599	968	583	200	299	722	480	195	121
Future Volume (vph)	205	799	161	599	968	583	200	299	722	480	195	121
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	30.0	22.5	22.5	9.5	30.0	30.0	9.5	22.5	22.5
Total Split (s)	19.4	29.0	29.0	30.0	39.6	39.6	27.5	30.0	30.0	31.0	33.5	33.5
Total Split (%)	16.2%	24.2%	24.2%	25.0%	33.0%	33.0%	22.9%	25.0%	25.0%	25.8%	27.9%	27.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	20.3	25.0	25.0	35.6	40.3	40.3	18.3	14.9	55.0	26.5	23.1	23.1
Actuated g/C Ratio	0.17	0.21	0.21	0.30	0.34	0.34	0.15	0.12	0.46	0.22	0.19	0.19
v/c Ratio	0.69	1.03	0.35	0.57	0.77	0.76	0.74	0.65	0.96	1.23	0.27	0.29
Control Delay	58.9	87.2	8.4	29.6	40.2	19.7	65.1	56.5	53.3	164.4	42.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	87.2	8.4	29.6	40.2	19.7	65.1	56.5	53.3	164.4	42.8	7.2
LOS	E	F	A	C	D	B	E	E	D	F	D	A
Approach Delay		71.3			31.7			56.0			110.7	
Approach LOS		E			C			E			F	

Intersection Summary






























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.23  
 Intersection Signal Delay: 57.7  
 Intersection LOS: E  
 Intersection Capacity Utilization 104.6%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

HY (2045) w/ Scenario 2 PM Peak Hour  
With Additional Improvements (Scenario 2)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Traffic Volume (veh/h)	205	799	161	599	968	583	200	299	722	480	195	121
Future Volume (veh/h)	205	799	161	599	968	583	200	299	722	480	195	121
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	205	799	81	599	968	292	200	299	362	480	195	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	890	377	663	1122	475	229	767	620	393	1114	472
Arrive On Green	0.19	0.36	0.36	0.31	0.50	0.50	0.19	0.31	0.31	0.33	0.45	0.45
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	205	799	81	599	968	292	200	299	362	480	195	61
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	13.6	24.3	4.3	19.3	27.3	15.9	13.1	7.5	22.1	26.5	3.8	2.7
Cycle Q Clear(g_c), s	13.6	24.3	4.3	19.3	27.3	15.9	13.1	7.5	22.1	26.5	3.8	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	890	377	663	1122	475	229	767	620	393	1114	472
V/C Ratio(X)	0.93	0.90	0.21	0.90	0.86	0.61	0.88	0.39	0.58	1.22	0.18	0.13
Avail Cap(c_a), veh/h	221	890	377	757	1122	475	341	795	632	393	1114	472
HCM Platoon Ratio	1.50	1.50	1.50	1.67	1.67	1.67	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	37.2	30.8	40.3	27.8	25.0	47.5	35.6	25.2	40.1	24.4	24.1
Incr Delay (d2), s/veh	40.8	13.7	1.3	10.0	6.6	4.2	15.2	0.3	1.3	120.0	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	8.2	11.7	1.7	8.5	11.1	5.5	6.4	3.3	7.6	23.7	1.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.1	50.8	32.1	50.4	34.4	29.2	62.8	35.9	26.6	160.2	24.4	24.2
LnGrp LOS	F	D	C	D	C	C	E	D	C	F	C	C
Approach Vol, veh/h		1085			1859			861			736	
Approach Delay, s/veh		56.7			38.7			38.2			112.9	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.8	33.1	19.9	40.2	19.4	40.5	31.0	29.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	25.5	24.5	23.0	29.0	14.9	35.1	26.5	25.5				
Max Q Clear Time (g_c+I1), s	21.3	26.3	15.1	5.8	15.6	29.3	28.5	24.1				
Green Ext Time (p_c), s	1.0	0.0	0.3	1.4	0.0	3.6	0.0	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			54.9									
HCM 6th LOS			D									

**APPENDIX 7.9: SUNDAY HORIZON YEAR (2045) WITH PROJECT  
SCENARIO 3 (PA1 HIGH-CUBE WAREHOUSE & TRUCK/TRAILER LOT  
AND PA2 CHURCH) CONDITIONS INTERSECTION OPERATIONS  
ANALYSIS WORKSHEETS**



This Page Intentionally Left Blank

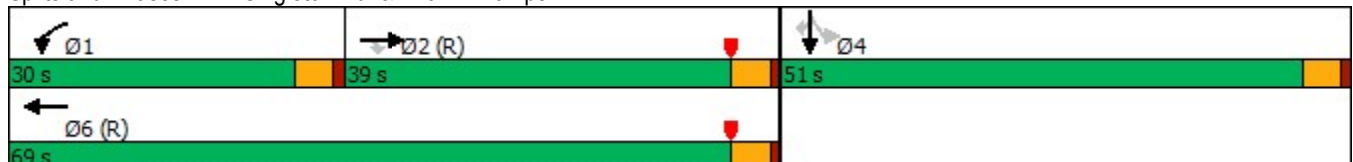
Timings  
1: Singleton Rd. & I-10 EB Ramps

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↓	↘↙
Traffic Volume (vph)	613	311	390	720	1	345
Future Volume (vph)	613	311	390	720	1	345
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	39.0	39.0	30.0	69.0	51.0	51.0
Total Split (%)	32.5%	32.5%	25.0%	57.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	41.1	41.1	18.9	64.5	46.5	46.5
Actuated g/C Ratio	0.34	0.34	0.16	0.54	0.39	0.39
v/c Ratio	0.51	0.42	0.72	0.38	0.54	0.27
Control Delay	44.2	17.5	55.9	16.8	31.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	17.5	55.9	16.8	31.9	3.6
LOS	D	B	E	B	C	A
Approach Delay	35.2			30.6	18.6	
Approach LOS	D			C	B	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 94.5 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 28.9  
 Intersection Capacity Utilization 63.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps

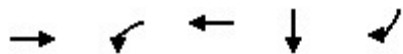


HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖↗	↑↑						↖	↖↗
Traffic Volume (veh/h)	0	613	311	390	720	0	0	0	0	388	1	345
Future Volume (veh/h)	0	613	311	390	720	0	0	0	0	388	1	345
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	613	311	390	720	0				388	1	345
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1296	578	468	1910	0				689	2	1081
Arrive On Green	0.00	0.36	0.36	0.14	0.54	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1777	5	2790
Grp Volume(v), veh/h	0	613	311	390	720	0				389	0	345
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1782	0	1395
Q Serve(g_s), s	0.0	15.9	18.6	13.2	14.1	0.0				20.5	0.0	10.4
Cycle Q Clear(g_c), s	0.0	15.9	18.6	13.2	14.1	0.0				20.5	0.0	10.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1296	578	468	1910	0				690	0	1081
V/C Ratio(X)	0.00	0.47	0.54	0.83	0.38	0.00				0.56	0.00	0.32
Avail Cap(c_a), veh/h	0	1296	578	734	1910	0				690	0	1081
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	0.79	0.79	0.88	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.3	30.1	50.6	16.1	0.0				28.8	0.0	25.7
Incr Delay (d2), s/veh	0.0	1.0	2.8	4.3	0.5	0.0				3.3	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
%ile BackOfQ(50%),veh/ln	0.0	7.0	7.5	6.0	5.8	0.0				9.4	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.3	33.0	54.8	16.6	0.0				32.1	0.0	26.5
LnGrp LOS	A	C	C	D	B	A				C	A	C
Approach Vol, veh/h		924			1110						734	
Approach Delay, s/veh		31.2			30.0						29.5	
Approach LOS		C			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.7	48.3		51.0		69.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	25.5	34.5		46.5		64.5						
Max Q Clear Time (g_c+I1), s	15.2	20.6		22.5		16.1						
Green Ext Time (p_c), s	1.0	4.6		4.1		6.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			30.3									
HCM 6th LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

Timings  
1: Singleton Rd. & I-10 EB Ramps

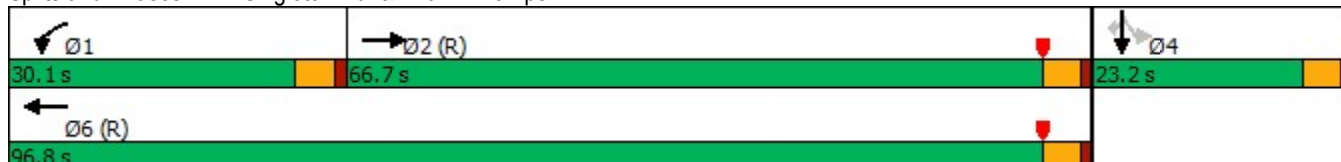


Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations	↗	↖	↗	↖	↗
Traffic Volume (vph)	613	390	720	1	345
Future Volume (vph)	613	390	720	1	345
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	66.7	30.1	96.8	23.2	23.2
Total Split (%)	55.6%	25.1%	80.7%	19.3%	19.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	62.2	25.6	92.3	18.7	18.7
Actuated g/C Ratio	0.52	0.21	0.77	0.16	0.16
v/c Ratio	1.12	1.18	0.57	1.52	0.82
Control Delay	96.5	121.0	7.0	288.0	30.3
Queue Delay	0.0	0.0	1.7	0.0	0.0
Total Delay	96.5	121.0	8.7	288.0	30.3
LOS	F	F	A	F	C
Approach Delay	96.5		48.1	166.9	
Approach LOS	F		D	F	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.52  
 Intersection Signal Delay: 95.8  
 Intersection LOS: F  
 Intersection Capacity Utilization 129.1%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Singleton Rd. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary  
 1: Singleton Rd. & I-10 EB Ramps

Oak Valley North Specific Plan  
 ICE Configuration



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↔	↔
Traffic Volume (veh/h)	0	613	311	390	720	0	0	0	0	388	1	345
Future Volume (veh/h)	0	613	311	390	720	0	0	0	0	388	1	345
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	697	353	443	818	0				441	1	392
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	607	307	380	1439	0				277	1	247
Arrive On Green	0.00	0.52	0.52	0.43	1.00	0.00				0.16	0.16	0.16
Sat Flow, veh/h	0	1171	593	1781	1870	0				1777	4	1585
Grp Volume(v), veh/h	0	0	1050	443	818	0				442	0	392
Grp Sat Flow(s),veh/h/ln	0	0	1764	1781	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	62.2	25.6	0.0	0.0				18.7	0.0	18.7
Cycle Q Clear(g_c), s	0.0	0.0	62.2	25.6	0.0	0.0				18.7	0.0	18.7
Prop In Lane	0.00		0.34	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	914	380	1439	0				278	0	247
V/C Ratio(X)	0.00	0.00	1.15	1.17	0.57	0.00				1.59	0.00	1.59
Avail Cap(c_a), veh/h	0	0	914	380	1439	0				278	0	247
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	28.9	34.4	0.0	0.0				50.7	0.0	50.7
Incr Delay (d2), s/veh	0.0	0.0	79.7	77.5	0.1	0.0				282.9	0.0	282.6
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	0.0	45.2	17.0	0.1	0.0				30.1	0.0	26.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	108.6	111.9	0.1	0.0				333.5	0.0	333.2
LnGrp LOS	A	A	F	F	A	A				F	A	F
Approach Vol, veh/h		1050			1261						834	
Approach Delay, s/veh		108.6			39.4						333.4	
Approach LOS		F			D						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	30.1	66.7		23.2		96.8						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	25.6	62.2		18.7		92.3						
Max Q Clear Time (g_c+I1), s	27.6	64.2		20.7		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		7.9						

Intersection Summary

HCM 6th Ctrl Delay	140.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

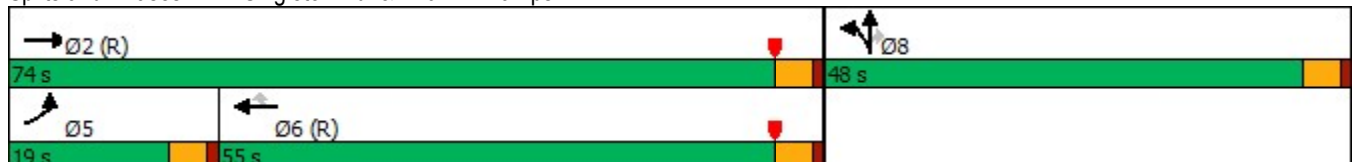
Timings  
2: Singleton Rd. & I-10 WB Ramps

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	286	722	725	341	384	1	354
Future Volume (vph)	286	722	725	341	384	1	354
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	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	19.0	74.0	55.0	55.0	48.0	48.0	48.0
Total Split (%)	15.6%	60.7%	45.1%	45.1%	39.3%	39.3%	39.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	4.5	4.5	4.5	4.5	4.5	4.5
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)	15.4	87.1	67.2	67.2	25.9	25.9	25.9
Actuated g/C Ratio	0.13	0.71	0.55	0.55	0.21	0.21	0.21
v/c Ratio	0.66	0.29	0.37	0.33	0.72	0.69	0.48
Control Delay	58.2	7.4	17.9	3.0	55.3	45.5	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	7.4	17.9	3.0	55.3	45.5	10.3
LOS	E	A	B	A	E	D	B
Approach Delay		21.8	13.1			37.8	
Approach LOS		C	B			D	

Intersection Summary
























Cycle Length: 122  
 Actuated Cycle Length: 122  
 Offset: 109.5 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 22.7  
 Intersection Capacity Utilization 63.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	286	722	0	0	725	341	384	1	354	0	0	0
Future Volume (veh/h)	286	722	0	0	725	341	384	1	354	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	286	722	0	0	725	341	495	0	236			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	345	2646	0	0	2160	963	647	0	288			
Arrive On Green	0.10	0.74	0.00	0.00	0.61	0.61	0.18	0.00	0.18			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	286	722	0	0	725	341	495	0	236			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	9.9	7.9	0.0	0.0	12.3	13.1	16.1	0.0	17.5			
Cycle Q Clear(g_c), s	9.9	7.9	0.0	0.0	12.3	13.1	16.1	0.0	17.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	345	2646	0	0	2160	963	647	0	288			
V/C Ratio(X)	0.83	0.27	0.00	0.00	0.34	0.35	0.76	0.00	0.82			
Avail Cap(c_a), veh/h	411	2646	0	0	2160	963	1270	0	565			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	0.88	0.88	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.9	5.0	0.0	0.0	11.8	12.0	47.4	0.0	48.0			
Incr Delay (d2), s/veh	10.0	0.2	0.0	0.0	0.4	0.9	1.9	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	4.8	2.7	0.0	0.0	4.9	4.8	7.3	0.0	7.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	5.2	0.0	0.0	12.2	12.8	49.4	0.0	53.7			
LnGrp LOS	E	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		1008			1066			731				
Approach Delay, s/veh		21.9			12.4			50.8				
Approach LOS		C			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		95.3			16.7	78.7		26.7				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		69.5			14.5	50.5		43.5				
Max Q Clear Time (g_c+I1), s		9.9			11.9	15.1		19.5				
Green Ext Time (p_c), s		6.0			0.3	7.4		2.7				









Intersection Summary

HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

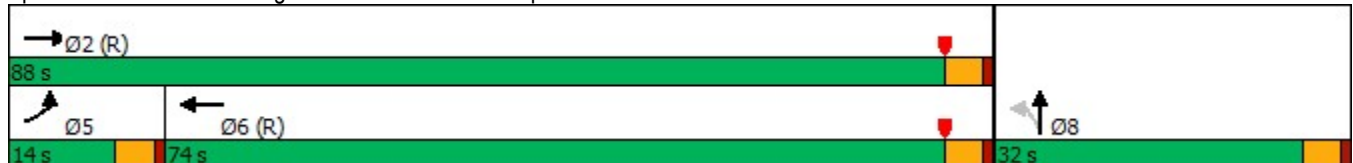
Timings  
2: Singleton Rd. & I-10 WB Ramps

				
Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	286	722	725	1
Future Volume (vph)	286	722	725	1
Turn Type	Prot	NA	NA	NA
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	73.0	28.0
Total Split (s)	14.0	88.0	74.0	32.0
Total Split (%)	11.7%	73.3%	61.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	9.5	83.5	69.5	27.5
Actuated g/C Ratio	0.08	0.70	0.58	0.23
v/c Ratio	2.22	0.61	1.11	1.93
Control Delay	574.8	14.5	87.7	453.7
Queue Delay	0.0	2.1	0.0	0.0
Total Delay	574.8	16.6	87.7	453.7
LOS	F	B	F	F
Approach Delay		175.0	87.7	453.7
Approach LOS		F	F	F

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.22  
 Intersection Signal Delay: 215.1  
 Intersection LOS: F  
 Intersection Capacity Utilization 129.1%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Singleton Rd. & I-10 WB Ramps





HCM 6th Signalized Intersection Summary  
 2: Singleton Rd. & I-10 WB Ramps

Oak Valley North Specific Plan  
 ICE Configuration

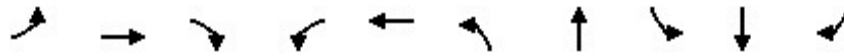


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	722	0	0	725	341	384	1	354	0	0	0
Future Volume (veh/h)	286	722	0	0	725	341	384	1	354	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
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	311	785	0	0	788	371	417	1	385			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	141	1301	0	0	696	328	200	0	185			
Arrive On Green	0.16	1.00	0.00	0.00	0.58	0.58	0.23	0.23	0.23			
Sat Flow, veh/h	1781	1870	0	0	1202	566	873	2	806			
Grp Volume(v), veh/h	311	785	0	0	0	1159	803	0	0			
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	0	1768	1682	0	0			
Q Serve(g_s), s	9.5	0.0	0.0	0.0	0.0	69.5	27.5	0.0	0.0			
Cycle Q Clear(g_c), s	9.5	0.0	0.0	0.0	0.0	69.5	27.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.32	0.52		0.48			
Lane Grp Cap(c), veh/h	141	1301	0	0	0	1024	385	0	0			
V/C Ratio(X)	2.21	0.60	0.00	0.00	0.00	1.13	2.08	0.00	0.00			
Avail Cap(c_a), veh/h	141	1301	0	0	0	1024	385	0	0			
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	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	50.5	0.0	0.0	0.0	0.0	25.3	46.3	0.0	0.0			
Incr Delay (d2), s/veh	544.5	0.2	0.0	0.0	0.0	71.7	496.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	25.2	0.1	0.0	0.0	0.0	47.5	64.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	595.0	0.2	0.0	0.0	0.0	96.9	542.8	0.0	0.0			
LnGrp LOS	F	A	A	A	A	F	F	A	A			
Approach Vol, veh/h		1096			1159			803				
Approach Delay, s/veh		169.0			96.9			542.8				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		88.0			14.0	74.0		32.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		83.5			9.5	69.5		27.5				
Max Q Clear Time (g_c+I1), s		2.0			11.5	71.5		29.5				
Green Ext Time (p_c), s		7.3			0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					239.8							
HCM 6th LOS					F							

Timings

Oak Valley North Specific Plan

3: Calimesa Bl. & Singleton Rd.

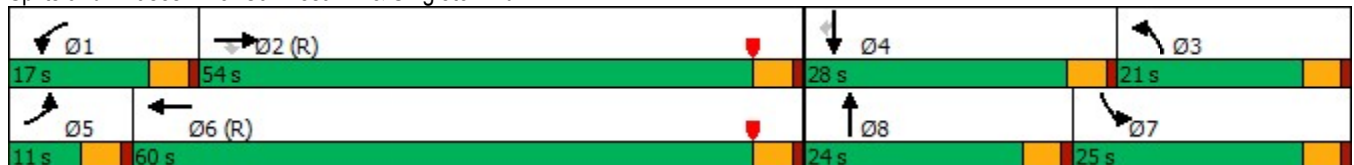


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↗	↖	↑↑	↖↗	↑↑	↖	↑↑	↗
Traffic Volume (vph)	128	800	233	66	832	210	83	130	104	117
Future Volume (vph)	128	800	233	66	832	210	83	130	104	117
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.0	54.0	54.0	17.0	60.0	21.0	24.0	25.0	28.0	28.0
Total Split (%)	9.2%	45.0%	45.0%	14.2%	50.0%	17.5%	20.0%	20.8%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	9.3	68.7	68.7	9.6	67.0	14.2	11.6	14.2	11.6	11.6
Actuated g/C Ratio	0.08	0.57	0.57	0.08	0.56	0.12	0.10	0.12	0.10	0.10
v/c Ratio	0.48	0.39	0.23	0.44	0.47	0.52	0.40	0.62	0.30	0.43
Control Delay	59.3	17.0	3.0	58.1	22.6	47.0	42.3	62.9	52.1	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	17.0	3.0	58.1	22.6	47.0	42.3	62.9	52.1	10.2
LOS	E	B	A	E	C	D	D	E	D	B
Approach Delay		18.8			24.8		45.0		42.1	
Approach LOS		B			C		D		D	

Intersection Summary





























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 109.5 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 27.0  
 Intersection Capacity Utilization 61.9%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 3: Calimesa Bl. & Singleton Rd.



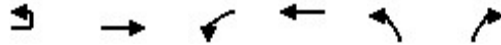
HCM 6th Signalized Intersection Summary  
3: Calimesa Bl. & Singleton Rd.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 			 	
Traffic Volume (veh/h)	128	800	233	66	832	133	210	83	71	130	104	117
Future Volume (veh/h)	128	800	233	66	832	133	210	83	71	130	104	117
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	128	800	233	66	832	133	210	83	71	130	104	117
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	2240	999	84	1968	315	298	159	123	158	305	136
Arrive On Green	0.05	0.63	0.63	0.09	1.00	1.00	0.09	0.08	0.08	0.09	0.09	0.09
Sat Flow, veh/h	3456	3554	1585	1781	3147	503	3456	1905	1477	1781	3554	1585
Grp Volume(v), veh/h	128	800	233	66	494	471	210	77	77	130	104	117
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1780	1728	1777	1605	1781	1777	1585
Q Serve(g_s), s	4.4	12.9	4.3	4.3	0.0	0.0	7.1	5.0	5.6	8.6	3.3	7.5
Cycle Q Clear(g_c), s	4.4	12.9	4.3	4.3	0.0	0.0	7.1	5.0	5.6	8.6	3.3	7.5
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.92	1.00		1.00
Lane Grp Cap(c), veh/h	181	2240	999	84	1170	1113	298	148	134	158	305	136
V/C Ratio(X)	0.71	0.36	0.23	0.78	0.42	0.42	0.70	0.52	0.58	0.82	0.34	0.86
Avail Cap(c_a), veh/h	187	2240	999	186	1170	1113	475	289	261	304	696	310
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	10.6	3.1	53.7	0.0	0.0	53.3	52.7	53.0	53.7	51.6	40.1
Incr Delay (d2), s/veh	10.6	0.4	0.5	14.4	1.1	1.2	3.0	2.8	3.9	10.0	0.7	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.0	2.5	2.2	0.4	0.4	3.2	2.3	2.4	4.3	1.5	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.6	11.0	3.6	68.1	1.1	1.2	56.4	55.5	56.9	63.7	52.3	54.3
LnGrp LOS	E	B	A	E	A	A	E	E	E	E	D	D
Approach Vol, veh/h		1161			1031			364			351	
Approach Delay, s/veh		15.6			5.4			56.3			57.2	
Approach LOS		B			A			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	80.1	14.9	14.8	10.8	79.5	15.2	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	49.5	16.5	23.5	6.5	55.5	20.5	19.5				
Max Q Clear Time (g_c+I1), s	6.3	14.9	9.1	9.5	6.4	2.0	10.6	7.6				
Green Ext Time (p_c), s	0.1	7.6	0.4	0.8	0.0	8.0	0.2	0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				22.1								
HCM 6th LOS				C								

Timings

4: Beckwith Av. & Singleton Rd.

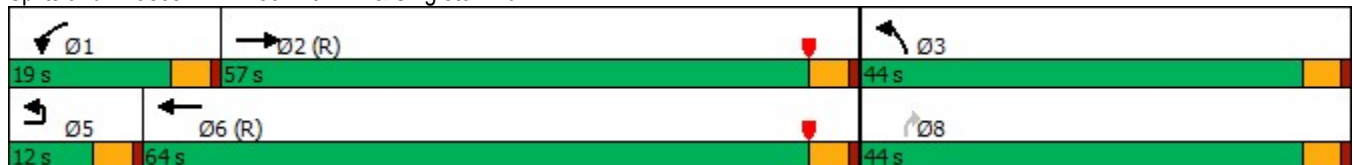


Lane Group	EBU	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↕	↖	↕↕	↖	↖
Traffic Volume (vph)	34	612	87	685	330	80
Future Volume (vph)	34	612	87	685	330	80
Turn Type	Prot	NA	Prot	NA	Prot	Perm
Protected Phases	5	2	1	6	3	
Permitted Phases						8
Detector Phase	5	2	1	6	3	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	12.0	57.0	19.0	64.0	44.0	44.0
Total Split (%)	10.0%	47.5%	15.8%	53.3%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	C-Max	None	Max
Act Effect Green (s)	6.9	56.0	11.0	64.3	39.5	39.5
Actuated g/C Ratio	0.06	0.47	0.09	0.54	0.33	0.33
v/c Ratio	0.33	0.60	0.54	0.36	0.57	0.14
Control Delay	74.4	13.6	49.9	11.1	37.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.4	13.6	49.9	11.1	37.8	6.7
LOS	E	B	D	B	D	A
Approach Delay		15.7		15.5	31.7	
Approach LOS		B		B	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 112.5 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 18.6  
 Intersection Capacity Utilization 62.7%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 4: Beckwith Av. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
 4: Beckwith Av. & Singleton Rd.



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↕↔		↕	↕↕	↕	↕
Traffic Volume (veh/h)	34	612	358	87	685	330	80
Future Volume (veh/h)	34	612	358	87	685	330	80
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		612	358	87	685	330	80
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1336	781	110	2553	368	327
Arrive On Green		0.62	0.62	0.06	0.72	0.21	0.21
Sat Flow, veh/h		2251	1262	1781	3647	1781	1585
Grp Volume(v), veh/h		504	466	87	685	330	80
Grp Sat Flow(s),veh/h/ln		1777	1643	1781	1777	1781	1585
Q Serve(g_s), s		18.1	18.1	5.8	8.1	21.7	5.1
Cycle Q Clear(g_c), s		18.1	18.1	5.8	8.1	21.7	5.1
Prop In Lane			0.77	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1100	1017	110	2553	368	327
V/C Ratio(X)		0.46	0.46	0.79	0.27	0.90	0.24
Avail Cap(c_a), veh/h		1100	1017	215	2553	586	522
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		12.2	12.2	55.5	5.9	46.4	39.8
Incr Delay (d2), s/veh		1.4	1.5	11.7	0.3	10.9	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		7.3	6.8	3.0	2.8	10.6	2.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		13.5	13.6	67.2	6.1	57.2	40.2
LnGrp LOS		B	B	E	A	E	D
Approach Vol, veh/h	970				772	410	
Approach Delay, s/veh		13.6			13.0	53.9	
Approach LOS		B			B	D	
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.9	78.8				90.7	29.3
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5
Max Green Setting (Gmax), s	14.5	52.5				59.5	39.5
Max Q Clear Time (g_c+I1), s	7.8	20.1				10.1	23.7
Green Ext Time (p_c), s	0.1	7.8				5.6	1.1

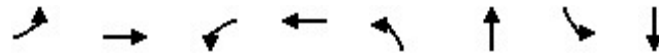
Intersection Summary

HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Timings  
5: Singleton Cyn. Rd. & Singleton Rd.

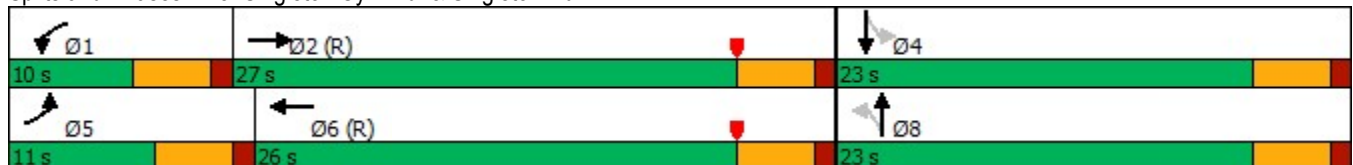


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↙	↕
Traffic Volume (vph)	48	607	2	719	3	2	9	2
Future Volume (vph)	48	607	2	719	3	2	9	2
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	27.0	10.0	26.0	23.0	23.0	23.0	23.0
Total Split (%)	18.3%	45.0%	16.7%	43.3%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	6.2	30.5	5.5	25.9	18.5	18.5	18.5	18.5
Actuated g/C Ratio	0.10	0.51	0.09	0.43	0.31	0.31	0.31	0.31
v/c Ratio	0.26	0.34	0.01	0.48	0.01	0.01	0.02	0.12
Control Delay	25.6	14.9	25.0	14.8	14.7	12.2	14.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	14.9	25.0	14.8	14.7	12.2	14.8	5.8
LOS	C	B	C	B	B	B	B	A
Approach Delay		15.7		14.8		13.3		6.9
Approach LOS		B		B		B		A

Intersection Summary






















Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.48  
 Intersection Signal Delay: 14.8  
 Intersection LOS: B  
 Intersection Capacity Utilization 43.8%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 5: Singleton Cyn. Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
5: Singleton Cyn. Rd. & Singleton Rd.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	607	2	2	719	7	3	2	2	9	2	61
Future Volume (veh/h)	48	607	2	2	719	7	3	2	2	9	2	61
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	48	607	2	2	719	7	3	2	2	9	2	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1686	6	5	1517	15	495	265	265	553	16	476
Arrive On Green	0.05	0.46	0.46	0.00	0.42	0.42	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3633	12	1781	3606	35	1339	858	858	1412	51	1542
Grp Volume(v), veh/h	48	297	312	2	354	372	3	0	4	9	0	63
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1777	1864	1339	0	1716	1412	0	1593
Q Serve(g_s), s	1.6	6.5	6.5	0.1	8.7	8.7	0.1	0.0	0.1	0.3	0.0	1.7
Cycle Q Clear(g_c), s	1.6	6.5	6.5	0.1	8.7	8.7	1.8	0.0	0.1	0.4	0.0	1.7
Prop In Lane	1.00		0.01	1.00		0.02	1.00		0.50	1.00		0.97
Lane Grp Cap(c), veh/h	82	824	867	5	748	784	495	0	529	553	0	491
V/C Ratio(X)	0.59	0.36	0.36	0.41	0.47	0.47	0.01	0.00	0.01	0.02	0.00	0.13
Avail Cap(c_a), veh/h	193	824	867	163	748	784	495	0	529	553	0	491
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	28.1	10.4	10.4	29.9	12.6	12.6	15.6	0.0	14.4	14.5	0.0	14.9
Incr Delay (d2), s/veh	6.5	1.2	1.2	47.3	2.1	2.0	0.0	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.4	2.5	0.1	3.4	3.6	0.0	0.0	0.0	0.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	11.6	11.5	77.2	14.7	14.6	15.6	0.0	14.4	14.6	0.0	15.5
LnGrp LOS	C	B	B	E	B	B	B	A	B	B	A	B
Approach Vol, veh/h		657			728			7				72
Approach Delay, s/veh		13.2			14.8			14.9				15.4
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	32.3		23.0	7.3	29.7		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	22.5		18.5	6.5	21.5		18.5				
Max Q Clear Time (g_c+I1), s	2.1	8.5		3.7	3.6	10.7		3.8				
Green Ext Time (p_c), s	0.0	3.2		0.2	0.0	3.4		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								



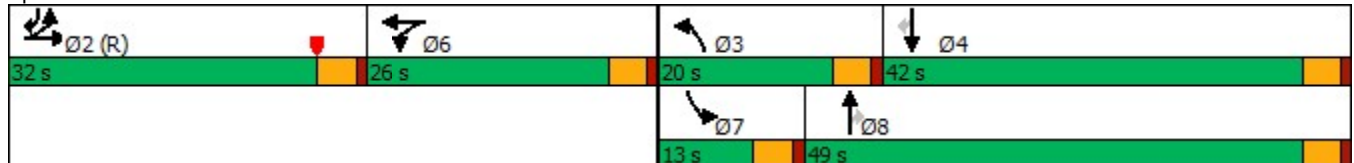
Timings  
6: Calimesa Bl. & 5th St.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	178	227	95	309	227	474	191	40	195	380
Future Volume (vph)	178	227	95	309	227	474	191	40	195	380
Turn Type	Split	NA	Split	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	2	2	6	6	3	8		7	4	2
Permitted Phases							8			4
Detector Phase	2	2	6	6	3	8	8	7	4	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	32.0	32.0	26.0	26.0	20.0	49.0	49.0	13.0	42.0	32.0
Total Split (%)	26.7%	26.7%	21.7%	21.7%	16.7%	40.8%	40.8%	10.8%	35.0%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	None	Max	C-Max
Act Effct Green (s)	27.5	27.5	16.7	16.7	12.8	52.1	52.1	7.7	45.0	77.0
Actuated g/C Ratio	0.23	0.23	0.14	0.14	0.11	0.43	0.43	0.06	0.38	0.64
v/c Ratio	0.36	0.35	0.39	0.67	0.60	0.59	0.26	0.35	0.28	0.36
Control Delay	41.8	38.6	50.6	53.8	59.5	28.5	12.9	62.2	29.1	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	38.6	50.6	53.8	59.5	28.5	12.9	62.2	29.1	8.7
LOS	D	D	D	D	E	C	B	E	C	A
Approach Delay		39.6		53.1		33.1			18.7	
Approach LOS		D		D		C			B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 87.5 (73%), Referenced to phase 2:EBTL, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 34.3  
 Intersection Capacity Utilization 62.4%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B























Splits and Phases: 6: Calimesa Bl. & 5th St.





HCM 6th Signalized Intersection Summary  
6: Calimesa Bl. & 5th St.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	227	36	95	309	41	227	474	191	40	195	380
Future Volume (veh/h)	178	227	36	95	309	41	227	474	191	40	195	380
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	147	270	36	95	309	41	227	474	191	40	195	380
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	581	1055	139	218	397	52	293	694	588	55	597	1023
Arrive On Green	0.33	0.33	0.33	0.12	0.12	0.12	0.08	0.37	0.37	0.03	0.32	0.32
Sat Flow, veh/h	1781	3237	427	1781	3239	426	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	147	155	151	95	177	173	227	474	191	40	195	380
Grp Sat Flow(s),veh/h/ln	1781	1870	1794	1781	1870	1794	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.3	7.3	7.5	5.9	11.0	11.2	7.5	25.6	10.3	2.7	9.5	13.4
Cycle Q Clear(g_c), s	7.3	7.3	7.5	5.9	11.0	11.2	7.5	25.6	10.3	2.7	9.5	13.4
Prop In Lane	1.00		0.24	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	610	585	218	229	220	293	694	588	55	597	1023
V/C Ratio(X)	0.25	0.25	0.26	0.44	0.77	0.79	0.78	0.68	0.32	0.73	0.33	0.37
Avail Cap(c_a), veh/h	581	610	585	319	335	321	460	694	588	126	597	1023
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(l)	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	29.7	29.7	29.8	48.8	51.0	51.1	54.0	31.8	27.0	57.7	31.0	9.9
Incr Delay (d2), s/veh	1.0	1.0	1.1	1.4	6.6	7.7	4.4	5.4	1.5	17.0	1.5	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	3.3	3.5	3.4	2.7	5.6	5.5	3.5	12.4	4.1	1.5	4.5	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	30.7	30.8	50.2	57.6	58.8	58.4	37.2	28.5	74.7	32.5	11.0
LnGrp LOS	C	C	C	D	E	E	E	D	C	E	C	B
Approach Vol, veh/h		453			445			892			615	
Approach Delay, s/veh		30.8			56.5			40.7			21.9	
Approach LOS		C			E			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		43.6	14.4	42.8		19.2	8.2	49.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	15.5	37.5		21.5	8.5	44.5				
Max Q Clear Time (g_c+I1), s		9.5	9.5	15.4		13.2	4.7	27.6				
Green Ext Time (p_c), s		2.1	0.4	2.4		1.5	0.0	3.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				37.0								
HCM 6th LOS				D								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

Timings

Oak Valley North Specific Plan

7: Roberts Rd. & Cherry Valley Bl.

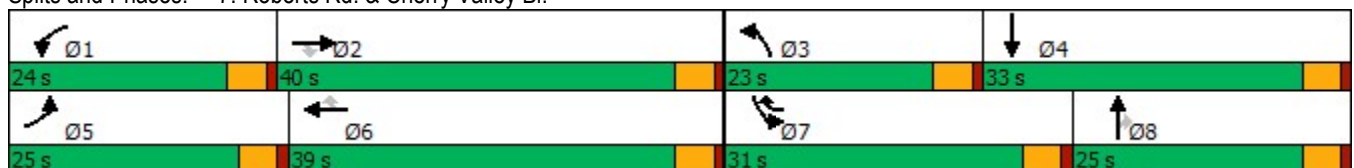


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↕	↖	↖↗	↕	↖	↖	↕	↖	↖↗	↖
Traffic Volume (vph)	316	549	50	300	550	374	28	4	174	423	13
Future Volume (vph)	316	549	50	300	550	374	28	4	174	423	13
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	7	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	25.0	40.0	40.0	24.0	39.0	31.0	23.0	25.0	25.0	31.0	33.0
Total Split (%)	20.8%	33.3%	33.3%	20.0%	32.5%	25.8%	19.2%	20.8%	20.8%	25.8%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	14.6	22.2	22.2	14.2	21.7	52.9	18.6	20.6	20.6	26.7	28.7
Actuated g/C Ratio	0.14	0.22	0.22	0.14	0.21	0.52	0.18	0.20	0.20	0.26	0.28
v/c Ratio	0.64	0.71	0.11	0.63	0.73	0.40	0.09	0.01	0.38	0.47	0.39
Control Delay	48.0	42.5	0.5	48.2	43.6	5.9	38.8	36.8	8.6	35.1	7.4
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	48.0	42.5	0.5	48.2	43.6	5.9	38.8	36.8	8.6	35.1	7.4
LOS	D	D	A	D	D	A	D	D	A	D	A
Approach Delay		42.1			33.2			13.3			25.0
Approach LOS		D			C			B			C

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 101.8  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 32.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 58.7%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 7: Roberts Rd. & Cherry Valley Bl.



HCM 6th Signalized Intersection Summary  
7: Roberts Rd. & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	549	50	300	550	374	28	4	174	423	13	227
Future Volume (veh/h)	316	549	50	300	550	374	28	4	174	423	13	227
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	316	549	50	300	550	374	28	4	174	423	13	227
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	404	815	363	386	796	781	334	389	329	928	25	437
Arrive On Green	0.12	0.23	0.23	0.11	0.22	0.22	0.19	0.21	0.21	0.27	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	1870	1585	3456	87	1512
Grp Volume(v), veh/h	316	549	50	300	550	374	28	4	174	423	0	240
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1870	1585	1728	0	1598
Q Serve(g_s), s	8.8	13.9	2.5	8.3	14.0	15.5	1.3	0.2	9.6	10.1	0.0	12.4
Cycle Q Clear(g_c), s	8.8	13.9	2.5	8.3	14.0	15.5	1.3	0.2	9.6	10.1	0.0	12.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	404	815	363	386	796	781	334	389	329	928	0	462
V/C Ratio(X)	0.78	0.67	0.14	0.78	0.69	0.48	0.08	0.01	0.53	0.46	0.00	0.52
Avail Cap(c_a), veh/h	718	1279	570	683	1243	980	334	389	329	928	0	462
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	42.3	34.7	30.3	42.6	35.1	16.6	33.1	31.0	34.8	30.1	0.0	29.3
Incr Delay (d2), s/veh	3.3	1.0	0.2	3.4	1.1	0.5	0.5	0.0	5.9	1.6	0.0	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	3.9	6.0	1.0	3.7	6.0	5.5	0.6	0.1	4.2	4.3	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	35.6	30.4	46.0	36.2	17.1	33.6	31.1	40.7	31.7	0.0	33.5
LnGrp LOS	D	D	C	D	D	B	C	C	D	C	A	C
Approach Vol, veh/h		915			1224			206			663	
Approach Delay, s/veh		38.8			32.8			39.6			32.3	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	27.1	23.0	33.0	16.0	26.6	31.0	25.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.5	35.5	18.5	28.5	20.5	34.5	26.5	20.5				
Max Q Clear Time (g_c+I1), s	10.3	15.9	3.3	14.4	10.8	17.5	12.1	11.6				
Green Ext Time (p_c), s	0.7	3.6	0.0	1.2	0.8	4.6	1.3	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			35.0									
HCM 6th LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
8: I-10 EB Ramps & Cherry Valley Bl.

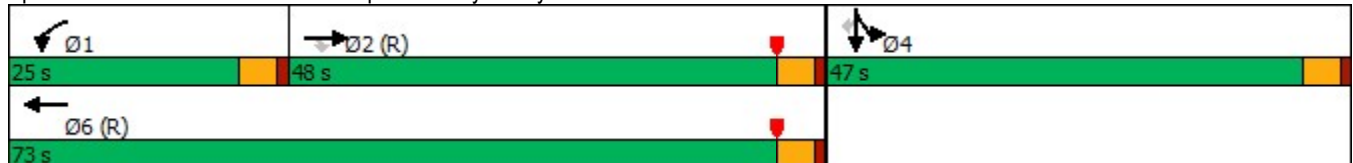


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations	↑↑	↑	↔	↑↑	↑	↔
Traffic Volume (vph)	928	203	383	624	3	571
Future Volume (vph)	928	203	383	624	3	571
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	48.0	48.0	25.0	73.0	47.0	47.0
Total Split (%)	40.0%	40.0%	20.8%	60.8%	39.2%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	46.0	46.0	18.0	68.5	42.5	42.5
Actuated g/C Ratio	0.38	0.38	0.15	0.57	0.35	0.35
v/c Ratio	0.68	0.29	0.75	0.31	0.78	0.44
Control Delay	34.5	10.5	62.1	24.9	44.6	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	10.5	62.1	24.9	44.6	6.9
LOS	C	B	E	C	D	A
Approach Delay	30.2			39.0	24.3	
Approach LOS	C			D	C	

Intersection Summary













Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 103.5 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 31.0  
 Intersection Capacity Utilization 74.9%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service D

Splits and Phases: 8: I-10 EB Ramps & Cherry Valley Bl.















HCM 6th Signalized Intersection Summary  
 8: I-10 EB Ramps & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖↗	↑↑						↖	↗↗
Traffic Volume (veh/h)	0	928	203	383	624	0	0	0	0	486	3	571
Future Volume (veh/h)	0	928	203	383	624	0	0	0	0	486	3	571
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	928	203	383	624	0				486	3	571
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1431	638	452	2029	0				627	4	988
Arrive On Green	0.00	0.40	0.40	0.13	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3647	1585	3456	3647	0				1771	11	2790
Grp Volume(v), veh/h	0	928	203	383	624	0				489	0	571
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1782	0	1395
Q Serve(g_s), s	0.0	25.3	10.5	13.0	11.0	0.0				29.3	0.0	19.9
Cycle Q Clear(g_c), s	0.0	25.3	10.5	13.0	11.0	0.0				29.3	0.0	19.9
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1431	638	452	2029	0				631	0	988
V/C Ratio(X)	0.00	0.65	0.32	0.85	0.31	0.00				0.77	0.00	0.58
Avail Cap(c_a), veh/h	0	1431	638	590	2029	0				631	0	988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.80	0.80	0.68	0.68	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.0	24.6	51.0	13.4	0.0				34.5	0.0	31.5
Incr Delay (d2), s/veh	0.0	1.8	1.0	6.2	0.3	0.0				9.0	0.0	2.5
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	0.0	10.9	4.1	6.0	4.3	0.0				14.1	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.8	25.6	57.2	13.7	0.0				43.5	0.0	33.9
LnGrp LOS	A	C	C	E	B	A				D	A	C
Approach Vol, veh/h		1131			1007						1060	
Approach Delay, s/veh		29.9			30.2						38.3	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.2	52.8		47.0		73.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	20.5	43.5		42.5		68.5						
Max Q Clear Time (g_c+I1), s	15.0	27.3		31.3		13.0						
Green Ext Time (p_c), s	0.7	6.5		4.4		4.8						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				32.8								
HCM 6th LOS				C								

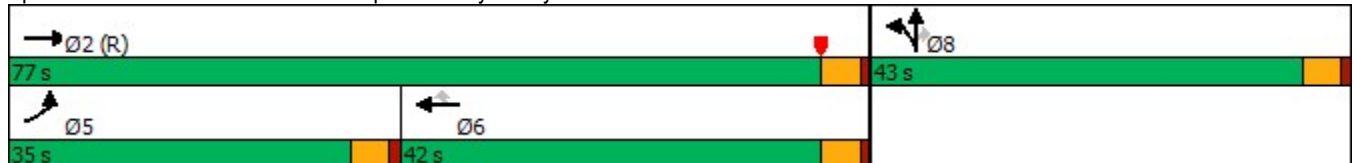
Timings  
9: I-10 WB Ramps & Cherry Valley Bl.

						
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	643	706	816	402	6	480
Future Volume (vph)	643	706	816	402	6	480
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	35.0	77.0	42.0	42.0	43.0	43.0
Total Split (%)	29.2%	64.2%	35.0%	35.0%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	None	None	Max	Max
Act Effct Green (s)	26.9	72.5	41.1	41.1	38.5	38.5
Actuated g/C Ratio	0.22	0.60	0.34	0.34	0.32	0.32
v/c Ratio	0.84	0.33	0.67	0.45	0.35	0.72
Control Delay	82.7	23.6	29.8	2.6	33.3	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	23.6	29.8	2.6	33.3	24.5
LOS	F	C	C	A	C	C
Approach Delay		51.7	20.8		27.1	
Approach LOS		D	C		C	

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 35.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.9%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 9: I-10 WB Ramps & Cherry Valley Bl.



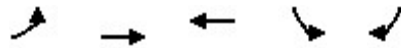
HCM 6th Signalized Intersection Summary  
 9: I-10 WB Ramps & Cherry Valley Bl.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 							
Traffic Volume (veh/h)	643	706	0	0	816	402	191	6	480	0	0	0
Future Volume (veh/h)	643	706	0	0	816	402	191	6	480	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	643	706	0	0	816	402	191	6	480			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	707	2147	0	0	1286	574	555	17	509			
Arrive On Green	0.41	1.00	0.00	0.00	0.72	0.72	0.32	0.32	0.32			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1730	54	1585			
Grp Volume(v), veh/h	643	706	0	0	816	402	197	0	480			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1784	0	1585			
Q Serve(g_s), s	21.0	0.0	0.0	0.0	14.1	17.1	10.1	0.0	35.4			
Cycle Q Clear(g_c), s	21.0	0.0	0.0	0.0	14.1	17.1	10.1	0.0	35.4			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	707	2147	0	0	1286	574	572	0	509			
V/C Ratio(X)	0.91	0.33	0.00	0.00	0.63	0.70	0.34	0.00	0.94			
Avail Cap(c_a), veh/h	878	2147	0	0	1286	574	572	0	509			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(l)	0.67	0.67	0.00	0.00	0.73	0.73	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.4	0.0	0.0	0.0	12.5	12.9	31.1	0.0	39.7			
Incr Delay (d2), s/veh	8.2	0.3	0.0	0.0	0.8	2.8	1.6	0.0	28.2			
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	7.7	0.1	0.0	0.0	3.7	4.0	4.6	0.0	17.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	0.3	0.0	0.0	13.3	15.7	32.8	0.0	67.8			
LnGrp LOS	D	A	A	A	B	B	C	A	E			
Approach Vol, veh/h		1349			1218			677				
Approach Delay, s/veh		20.4			14.1			57.6				
Approach LOS		C			B			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			29.1	47.9		43.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		72.5			30.5	37.5		38.5				
Max Q Clear Time (g_c+I1), s		2.0			23.0	19.1		37.4				
Green Ext Time (p_c), s		5.6			1.6	6.9		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					25.8							
HCM 6th LOS					C							



Timings  
10: Cherry Valley Bl. & Calimesa Bl.

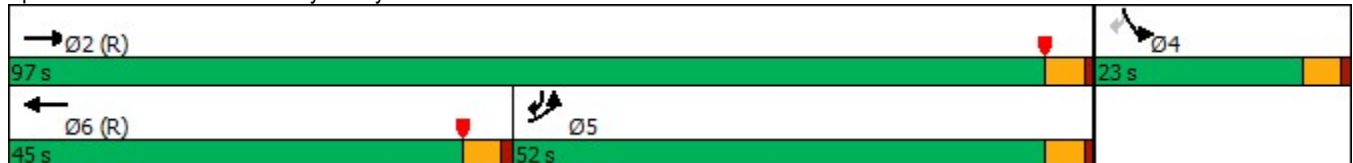


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↑↑	↑↑	↖	↗
Traffic Volume (vph)	471	717	709	124	455
Future Volume (vph)	471	717	709	124	455
Turn Type	Prot	NA	NA	Prot	pm+ov
Protected Phases	5	2	6	4	5
Permitted Phases					4
Detector Phase	5	2	6	4	5
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	52.0	97.0	45.0	23.0	52.0
Total Split (%)	43.3%	80.8%	37.5%	19.2%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
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)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes		Yes		Yes
Recall Mode	None	C-Max	C-Max	Max	None
Act Effct Green (s)	47.5	92.5	40.5	18.5	70.5
Actuated g/C Ratio	0.40	0.77	0.34	0.15	0.59
v/c Ratio	0.67	0.26	0.72	0.46	0.48
Control Delay	40.2	2.9	38.0	50.8	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	2.9	38.0	50.8	12.6
LOS	D	A	D	D	B
Approach Delay		17.7	38.0	20.7	
Approach LOS		B	D	C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 100.5 (84%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 24.9  
 Intersection Capacity Utilization 68.1%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

Splits and Phases: 10: Cherry Valley Bl. & Calimesa Bl.





HCM 6th Signalized Intersection Summary  
 10: Cherry Valley Bl. & Calimesa Bl.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	471	717	709	136	124	455
Future Volume (veh/h)	471	717	709	136	124	455
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	471	717	709	136	124	455
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	705	2739	1004	192	275	872
Arrive On Green	0.79	1.00	0.34	0.34	0.15	0.15
Sat Flow, veh/h	1781	3647	3068	570	1781	1585
Grp Volume(v), veh/h	471	717	423	422	124	455
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1768	1781	1585
Q Serve(g_s), s	14.0	0.0	24.9	24.9	7.6	0.0
Cycle Q Clear(g_c), s	14.0	0.0	24.9	24.9	7.6	0.0
Prop In Lane	1.00			0.32	1.00	1.00
Lane Grp Cap(c), veh/h	705	2739	600	597	275	872
V/C Ratio(X)	0.67	0.26	0.71	0.71	0.45	0.52
Avail Cap(c_a), veh/h	705	2739	600	597	275	872
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.87	0.87	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	0.0	34.6	34.6	46.1	17.0
Incr Delay (d2), s/veh	2.1	0.2	6.9	6.9	5.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.1	11.7	11.6	3.7	15.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	0.2	41.4	41.5	51.4	19.3
LnGrp LOS	B	A	D	D	D	B
Approach Vol, veh/h		1188	845		579	
Approach Delay, s/veh		4.5	41.5		26.2	
Approach LOS		A	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.0		23.0	52.0	45.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.5		18.5	47.5	40.5
Max Q Clear Time (g_c+I1), s		2.0		9.6	16.0	26.9
Green Ext Time (p_c), s		5.7		1.5	1.5	4.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			21.3			
HCM 6th LOS			C			

Timings  
11: Calimesa Bl. & I-10 WB Off-Ramp



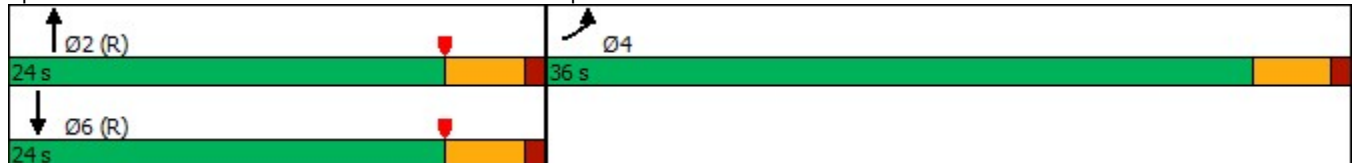
Lane Group	EBL	NBT	SBT
Lane Configurations	W	↑↑	↑
Traffic Volume (vph)	538	321	328
Future Volume (vph)	538	321	328
Turn Type	Prot	NA	NA
Protected Phases	4	2	6
Permitted Phases			
Detector Phase	4	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	36.0	24.0	24.0
Total Split (%)	60.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	24.2	26.8	26.8
Actuated g/C Ratio	0.40	0.45	0.45
v/c Ratio	0.76	0.19	0.39
Control Delay	22.1	12.0	9.5
Queue Delay	0.0	0.0	0.0
Total Delay	22.1	12.0	9.5
LOS	C	B	A
Approach Delay	22.1	12.0	9.5
Approach LOS	C	B	A

Intersection Summary

Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 15.9  
 Intersection Capacity Utilization 54.9%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 11: Calimesa Bl. & I-10 WB Off-Ramp



HCM 6th Signalized Intersection Summary  
 11: Calimesa Bl. & I-10 WB Off-Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	538	6	0	321	328	0
Future Volume (veh/h)	538	6	0	321	328	0
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	0	1870	1870	0
Adj Flow Rate, veh/h	538	6	0	321	328	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	610	7	0	1881	940	0
Arrive On Green	0.35	0.35	0.00	0.50	0.50	0.00
Sat Flow, veh/h	1756	20	0	3741	1870	0
Grp Volume(v), veh/h	545	0	0	321	328	0
Grp Sat Flow(s),veh/h/ln	1779	0	0	1870	1870	0
Q Serve(g_s), s	17.3	0.0	0.0	2.8	6.3	0.0
Cycle Q Clear(g_c), s	17.3	0.0	0.0	2.8	6.3	0.0
Prop In Lane	0.99	0.01	0.00			0.00
Lane Grp Cap(c), veh/h	618	0	0	1881	940	0
V/C Ratio(X)	0.88	0.00	0.00	0.17	0.35	0.00
Avail Cap(c_a), veh/h	934	0	0	1881	940	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	8.1	9.0	0.0
Incr Delay (d2), s/veh	6.7	0.0	0.0	0.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	0.0	1.0	2.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.2	0.0	0.0	8.3	10.0	0.0
LnGrp LOS	C	A	A	A	B	A
Approach Vol, veh/h	545			321	328	
Approach Delay, s/veh	25.2			8.3	10.0	
Approach LOS	C			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		34.7		25.3		34.7
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		19.5		31.5		19.5
Max Q Clear Time (g_c+I1), s		4.8		19.3		8.3
Green Ext Time (p_c), s		1.7		1.5		1.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			16.5			
HCM 6th LOS			B			
<b>Notes</b>						
User approved volume balancing among the lanes for turning movement.						

Timings  
12: Roberts Rd. & Singleton Rd.

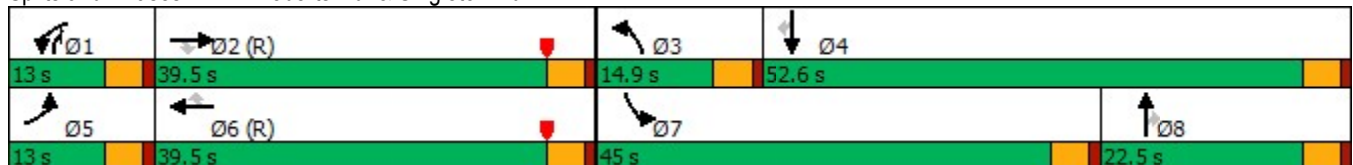
Oak Valley North Specific Plan

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	642	68	123	720	488	72	139	105	435	221	151
Future Volume (vph)	63	642	68	123	720	488	72	139	105	435	221	151
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	13.0	39.5	39.5	13.0	39.5	39.5	14.9	22.5	13.0	45.0	52.6	52.6
Total Split (%)	10.8%	32.9%	32.9%	10.8%	32.9%	32.9%	12.4%	18.8%	10.8%	37.5%	43.8%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	8.6	47.4	47.4	8.8	49.6	49.6	9.2	11.8	25.1	34.0	38.8	38.8
Actuated g/C Ratio	0.07	0.40	0.40	0.07	0.41	0.41	0.08	0.10	0.21	0.28	0.32	0.32
v/c Ratio	0.50	0.44	0.10	0.47	0.47	0.55	0.53	0.38	0.25	0.87	0.18	0.25
Control Delay	66.8	29.5	0.3	71.9	22.2	5.1	67.7	53.1	8.3	58.5	29.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	29.5	0.3	71.9	22.2	5.1	67.7	53.1	8.3	58.5	29.1	4.9
LOS	E	C	A	E	C	A	E	D	A	E	C	A
Approach Delay		30.0			20.6			41.5			40.4	
Approach LOS		C			C			D			D	

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 108.5 (90%), 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: 29.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 71.5%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Roberts Rd. & Singleton Rd.



HCM 6th Signalized Intersection Summary  
12: Roberts Rd. & Singleton Rd.

Oak Valley North Specific Plan

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	642	68	123	720	488	72	139	105	435	221	151
Future Volume (veh/h)	63	642	68	123	720	488	72	139	105	435	221	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	642	53	123	720	338	72	139	80	435	221	81
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1694	718	179	1712	726	92	312	212	469	1103	468
Arrive On Green	0.05	0.45	0.45	0.05	0.46	0.46	0.05	0.08	0.08	0.26	0.29	0.29
Sat Flow, veh/h	1781	3741	1585	3563	3741	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	63	642	53	123	720	338	72	139	80	435	221	81
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.2	13.6	2.3	4.1	15.5	17.6	4.8	4.2	5.5	28.6	5.3	4.6
Cycle Q Clear(g_c), s	4.2	13.6	2.3	4.1	15.5	17.6	4.8	4.2	5.5	28.6	5.3	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	1694	718	179	1712	726	92	312	212	469	1103	468
V/C Ratio(X)	0.78	0.38	0.07	0.69	0.42	0.47	0.78	0.45	0.38	0.93	0.20	0.17
Avail Cap(c_a), veh/h	126	1694	718	252	1712	726	154	561	318	601	1499	635
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	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	21.7	18.6	56.0	21.8	22.4	56.2	52.4	47.4	43.1	31.7	31.4
Incr Delay (d2), s/veh	14.6	0.6	0.2	4.3	0.7	2.0	13.3	1.0	1.1	17.9	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	2.2	6.1	0.9	1.9	6.9	6.9	2.5	2.0	2.3	14.8	2.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.3	22.3	18.8	60.4	22.6	24.5	69.5	53.4	48.5	61.0	31.8	31.6
LnGrp LOS	E	C	B	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		758			1181			291			737	
Approach Delay, s/veh		26.2			27.0			56.0			49.0	
Approach LOS		C			C			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	58.8	10.7	39.9	10.0	59.4	36.1	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	35.0	10.4	48.1	8.5	35.0	40.5	18.0				
Max Q Clear Time (g_c+I1), s	6.1	15.6	6.8	7.3	6.2	19.6	30.6	7.5				
Green Ext Time (p_c), s	0.1	4.5	0.0	1.8	0.0	5.6	1.0	0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				35.1								
HCM 6th LOS				D								

**APPENDIX 7.10: HORIZON YEAR (2045) WITH PROJECT CONDITIONS  
QUEUING ANALYSIS WORKSHEETS**

This Page Intentionally Left Blank

**Intersection: 1: Singleton Rd. & I-10 EB Ramps**

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	LT	R	R
Maximum Queue (ft)	208	142	110	247	263	276	73	223	90	16
Average Queue (ft)	161	107	71	240	223	107	54	179	66	12
95th Queue (ft)	242	197	100	284	294	224	106	295	118	32
Link Distance (ft)	1153	1153				600	600	412		
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300	230	230				300	300
Storage Blk Time (%)				23	6	1		2		
Queuing Penalty (veh)				66	18	8		8		

**Intersection: 2: Singleton Rd. & I-10 WB Ramps**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LTR	R
Maximum Queue (ft)	116	129	139	194	164	60	114	154	230	216
Average Queue (ft)	108	120	120	151	115	33	71	136	208	181
95th Queue (ft)	181	198	165	213	198	73	122	183	268	243
Link Distance (ft)			600	600	414	414	414		764	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	230	230						300		300
Storage Blk Time (%)										
Queuing Penalty (veh)										



**Intersection: 3: Calimesa Bl. & Singleton Rd.**

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	TR	L	L	T	TR
Maximum Queue (ft)	21	66	89	131	21	45	207	234	73	126	127	136
Average Queue (ft)	2	40	65	87	8	19	180	224	54	110	107	127
95th Queue (ft)	7	71	104	141	25	52	242	245	88	145	173	177
Link Distance (ft)			414	414			219	219			888	888
Upstream Blk Time (%)							2	15				
Queuing Penalty (veh)							17	107				
Storage Bay Dist (ft)	300	300			200	200			200	200		
Storage Blk Time (%)							8					
Queuing Penalty (veh)							3					

**Intersection: 3: Calimesa Bl. & Singleton Rd.**

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	130	30	71
Average Queue (ft)	112	22	61
95th Queue (ft)	158	41	95
Link Distance (ft)		1328	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		300
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 13: Calimesa Bl. & PA-1 Dwy. 1**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	20	9
Average Queue (ft)	10	5
95th Queue (ft)	33	22
Link Distance (ft)	300	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 14: Calimesa Bl. & PA-1 Dwy. 2**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	18	30
Average Queue (ft)	5	10
95th Queue (ft)	22	33
Link Distance (ft)	308	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 15: Calimesa Bl. & PA-1 Dwy. 3**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	37	21
Average Queue (ft)	33	20
95th Queue (ft)	46	43
Link Distance (ft)	312	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 16: Calimesa Bl. & PA-1 Dwy. 4**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	30	10
Average Queue (ft)	25	10
95th Queue (ft)	43	34
Link Distance (ft)	321	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Calimesa Bl. & PA-2 Dwy.

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	29	21
Average Queue (ft)	19	10
95th Queue (ft)	42	34
Link Distance (ft)	242	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 228

**Intersection: 1: Singleton Rd. & I-10 EB Ramps**

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	LT	R	R
Maximum Queue (ft)	591	218	270	241	249	356	371	428	390	222
Average Queue (ft)	385	197	269	234	219	310	296	427	390	212
95th Queue (ft)	407	232	271	245	268	385	419	428	390	228
Link Distance (ft)	1153	1153				600	600	412		
Upstream Blk Time (%)								12		
Queuing Penalty (veh)								0		
Storage Bay Dist (ft)			300	230	230				300	300
Storage Blk Time (%)				18		27		29		
Queuing Penalty (veh)				102		129		188		

**Intersection: 2: Singleton Rd. & I-10 WB Ramps**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LTR	R
Maximum Queue (ft)	228	229	250	183	258	151	91	389	633	390
Average Queue (ft)	205	217	205	147	251	84	82	318	429	302
95th Queue (ft)	243	237	280	166	262	152	96	435	766	447
Link Distance (ft)			600	600	414	414	414		764	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	230	230						300		300
Storage Blk Time (%)	1	11	0						14	
Queuing Penalty (veh)	3	59	2						97	

Intersection: 3: Calimesa Bl. & Singleton Rd.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	TR	L	L	T	TR
Maximum Queue (ft)	90	104	321	384	283	218	230	226	115	168	21	44
Average Queue (ft)	77	94	163	178	30	54	117	202	111	129	11	44
95th Queue (ft)	99	111	197	264	65	63	151	230	117	194	28	44
Link Distance (ft)			414	414			219	219			888	888
Upstream Blk Time (%)						0	1	5				
Queuing Penalty (veh)						0	10	31				
Storage Bay Dist (ft)	300	300			200	200			200	200		
Storage Blk Time (%)			2	9		0	2					
Queuing Penalty (veh)			2	33		1	2					

Intersection: 3: Calimesa Bl. & Singleton Rd.

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	276	44	47	112
Average Queue (ft)	146	31	37	71
95th Queue (ft)	180	51	54	140
Link Distance (ft)		1328	1328	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			300
Storage Blk Time (%)	8			
Queuing Penalty (veh)	5			

Intersection: 13: Calimesa Bl. & PA-1 Dwy. 1

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	28	29
Average Queue (ft)	14	14
95th Queue (ft)	37	38
Link Distance (ft)	300	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 14: Calimesa Bl. & PA-1 Dwy. 2**

Movement	WB
Directions Served	LR
Maximum Queue (ft)	28
Average Queue (ft)	27
95th Queue (ft)	29
Link Distance (ft)	308
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 15: Calimesa Bl. & PA-1 Dwy. 3**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	30	31
Average Queue (ft)	28	30
95th Queue (ft)	30	32
Link Distance (ft)	312	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 16: Calimesa Bl. & PA-1 Dwy. 4**

Movement	WB
Directions Served	LR
Maximum Queue (ft)	52
Average Queue (ft)	26
95th Queue (ft)	68
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Calimesa Bl. & PA-2 Dwy.

Movement	WB
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	13
95th Queue (ft)	34
Link Distance (ft)	242
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 663

**Intersection: 1: Singleton Rd. & I-10 EB Ramps**

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LTR	R
Maximum Queue (ft)	298	325	80	265	305	102	138	188	316	226
Average Queue (ft)	148	141	59	221	178	58	83	143	239	150
95th Queue (ft)	277	297	88	276	322	109	129	202	350	294
Link Distance (ft)	1157	1157				596	596	412	412	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300	230	230					300
Storage Blk Time (%)		2		8	2				2	
Queuing Penalty (veh)		7		23	5				3	

**Intersection: 2: Singleton Rd. & I-10 WB Ramps**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LTR	R
Maximum Queue (ft)	158	157	156	180	289	271	134	144	248	169
Average Queue (ft)	114	95	93	137	166	75	110	131	227	148
95th Queue (ft)	181	177	164	195	275	241	139	150	269	175
Link Distance (ft)			596	596	414	414	414		764	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	230	230						300		300
Storage Blk Time (%)										
Queuing Penalty (veh)										



Queuing and Blocking Report  
 HY (2045) w/ Scenario 2 AM Peak Hour

HY (2045) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)

Intersection: 3: Calimesa Bl. & Singleton Rd.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	TR	L	L	T	TR
Maximum Queue (ft)	42	79	227	258	283	47	219	231	243	279	215	255
Average Queue (ft)	24	48	150	164	82	28	175	228	152	154	162	189
95th Queue (ft)	53	90	254	265	253	48	251	233	272	269	265	300
Link Distance (ft)			414	414			219	219			888	888
Upstream Blk Time (%)							1	44				
Queuing Penalty (veh)							5	315				
Storage Bay Dist (ft)	300	300			200	200			200	200		
Storage Blk Time (%)				2			7		6	4	6	
Queuing Penalty (veh)				10			4		9	6	31	

Intersection: 3: Calimesa Bl. & Singleton Rd.

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	97	43	49	196
Average Queue (ft)	59	17	20	117
95th Queue (ft)	97	44	50	213
Link Distance (ft)		1328	1328	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			300
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: Calimesa Bl. & PA-1 Dwy. 1

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	30	52
Average Queue (ft)	29	16
95th Queue (ft)	32	51
Link Distance (ft)	300	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report  
 HY (2045) w/ Scenario 2 AM Peak Hour

HY (2045) w/ Scenario 2 AM Peak Hour  
 With Additional Improvements (Scenario 2)

Intersection: 14: Calimesa Bl. & PA-1 Dwy. 2

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	116	32
Average Queue (ft)	50	24
95th Queue (ft)	107	44
Link Distance (ft)	308	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: Calimesa Bl. & PA-1 Dwy. 3

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	178	140	119	121	74	31
Average Queue (ft)	106	92	83	74	15	18
95th Queue (ft)	174	149	121	116	64	43
Link Distance (ft)	312	433	433		438	438
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	150					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 16: Calimesa Bl. & PA-1 Dwy. 4

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	124	54
Average Queue (ft)	55	29
95th Queue (ft)	115	57
Link Distance (ft)	321	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Calimesa Bl. & PA-2 Dwy.

Movement	WB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	29
95th Queue (ft)	30
Link Distance (ft)	242
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 418

**Intersection: 1: Singleton Rd. & I-10 EB Ramps**

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LTR	R
Maximum Queue (ft)	554	455	300	265	286	367	371	435	437	390
Average Queue (ft)	430	308	166	222	200	282	276	420	429	367
95th Queue (ft)	587	557	302	274	300	405	414	459	437	414
Link Distance (ft)	1157	1157				596	596	412	412	
Upstream Blk Time (%)								24	67	
Queuing Penalty (veh)								0	0	
Storage Bay Dist (ft)			300	230	230					300
Storage Blk Time (%)		3		25	1	15			64	1
Queuing Penalty (veh)		17		142	6	74			207	9

**Intersection: 2: Singleton Rd. & I-10 WB Ramps**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LTR	R
Maximum Queue (ft)	288	277	326	379	388	230	238	387	456	386
Average Queue (ft)	225	241	226	321	252	139	167	283	356	305
95th Queue (ft)	283	276	388	425	410	257	246	396	469	439
Link Distance (ft)			596	596	414	414	414		764	
Upstream Blk Time (%)					3					
Queuing Penalty (veh)					14					
Storage Bay Dist (ft)	230	230						300		300
Storage Blk Time (%)	3	16	7					2	16	9
Queuing Penalty (veh)	23	108	46					25	114	100

Queuing and Blocking Report  
 HY (2045) w/ Scenario 2 PM Peak Hour

HY (2045) w/ Scenario 2 PM Peak Hour  
 With Additional Improvements (Scenario 2)

Intersection: 3: Calimesa Bl. & Singleton Rd.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	TR	L	L	T	TR
Maximum Queue (ft)	21	60	424	433	290	153	230	227	177	198	45	84
Average Queue (ft)	8	43	342	386	288	107	196	207	113	142	21	56
95th Queue (ft)	31	73	448	457	294	163	263	293	190	224	47	87
Link Distance (ft)			414	414			219	219			888	888
Upstream Blk Time (%)			2	5			6	12				
Queuing Penalty (veh)			18	49			37	78				
Storage Bay Dist (ft)	300	300			200	200			200	200		
Storage Blk Time (%)			9	23	1		8		0	5		
Queuing Penalty (veh)			9	152	6		9		0	2		

Intersection: 3: Calimesa Bl. & Singleton Rd.

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	249	150	93	83
Average Queue (ft)	179	99	53	57
95th Queue (ft)	251	189	128	91
Link Distance (ft)		1328	1328	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			300
Storage Blk Time (%)	4	1		
Queuing Penalty (veh)	4	3		

Intersection: 13: Calimesa Bl. & PA-1 Dwy. 1

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	51	31
Average Queue (ft)	28	12
95th Queue (ft)	55	37
Link Distance (ft)	300	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 14: Calimesa Bl. & PA-1 Dwy. 2**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	58	64
Average Queue (ft)	39	33
95th Queue (ft)	61	69
Link Distance (ft)	308	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 15: Calimesa Bl. & PA-1 Dwy. 3**

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	120	122	151	120	30	76
Average Queue (ft)	70	73	77	95	20	23
95th Queue (ft)	129	142	148	140	42	78
Link Distance (ft)	312	433	433		438	438
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	150					
Storage Blk Time (%)						
Queuing Penalty (veh)						

**Intersection: 16: Calimesa Bl. & PA-1 Dwy. 4**

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	53	10	39
Average Queue (ft)	29	2	16
95th Queue (ft)	56	12	44
Link Distance (ft)	321	367	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Calimesa Bl. & PA-2 Dwy.

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	29	15
Average Queue (ft)	17	3
95th Queue (ft)	40	18
Link Distance (ft)	242	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 1250

**Intersection: 1: Singleton Rd. & I-10 EB Ramps**

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	LT	R	R
Maximum Queue (ft)	157	140	123	223	192	207	221	245	67	15
Average Queue (ft)	125	108	84	198	155	148	178	183	37	5
95th Queue (ft)	201	164	145	282	263	271	257	303	62	21
Link Distance (ft)	1153	1153				600	600	412		
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300	230	230				300	300
Storage Blk Time (%)				16	0	1		0		
Queuing Penalty (veh)				59	1	5		0		

**Intersection: 2: Singleton Rd. & I-10 WB Ramps**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LTR	R
Maximum Queue (ft)	74	88	161	219	134	68	55	188	243	199
Average Queue (ft)	68	83	133	178	105	41	31	137	196	153
95th Queue (ft)	110	111	212	244	212	99	65	306	323	299
Link Distance (ft)			600	600	414	414	414		764	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	230	230						300		300
Storage Blk Time (%)				0					1	
Queuing Penalty (veh)				0					5	



**Intersection: 3: Calimesa Bl. & Singleton Rd.**

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	TR	L	L	T	TR
Maximum Queue (ft)	6	29	166	192	86	104	176	229	63	77	28	86
Average Queue (ft)	3	18	104	133	46	81	139	164	45	65	16	64
95th Queue (ft)	13	41	248	295	176	161	224	272	78	107	41	114
Link Distance (ft)			414	414			219	219			888	888
Upstream Blk Time (%)						0	1	7				
Queuing Penalty (veh)						0	7	38				
Storage Bay Dist (ft)	300	300			200	200			200	200		
Storage Blk Time (%)			0	5			3					
Queuing Penalty (veh)			0	12			2					

**Intersection: 3: Calimesa Bl. & Singleton Rd.**

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	127	59	24	31
Average Queue (ft)	89	33	12	8
95th Queue (ft)	194	81	32	28
Link Distance (ft)		1328	1328	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			300
Storage Blk Time (%)	1			
Queuing Penalty (veh)	1			

**Intersection: 13: Calimesa Bl. & PA-1 Dwy. 1**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	6	6
Average Queue (ft)	0	3
95th Queue (ft)	0	18
Link Distance (ft)	300	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 14: Calimesa Bl. & PA-1 Dwy. 2**

Movement	SB
Directions Served	L
Maximum Queue (ft)	6
Average Queue (ft)	3
95th Queue (ft)	16
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	150
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 15: Calimesa Bl. & PA-1 Dwy. 3**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	23	6
Average Queue (ft)	11	3
95th Queue (ft)	34	17
Link Distance (ft)	312	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 16: Calimesa Bl. & PA-1 Dwy. 4**

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	52	22
Average Queue (ft)	41	14
95th Queue (ft)	77	44
Link Distance (ft)	321	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Calimesa Bl. & PA-2 Dwy.

---

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	58	39
Average Queue (ft)	39	23
95th Queue (ft)	63	56
Link Distance (ft)	242	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

---

Zone wide Queuing Penalty: 130