



**Bear Valley Marketplace
Traffic Impact Analysis
City of Victorville, California**

Prepared for:
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12300 Wilshire Boulevard, #410
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Prepared by:
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December 3, 2020



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TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

December 3, 2020

Mr. Michael Asheghian
MJM INVESTMENT CO., LLC
12300 Wilshire Blvd #410
Los Angeles, CA 90025

Subject: Traffic Impact Analysis: Bear Valley Marketplace, City of Victorville

Dear Mr. Asheghian:

TJW ENGINEERING, INC. (TJW) is pleased to present you with this traffic impact analysis for the proposed Bear Valley Marketplace located along the north side of Bear Valley Road between 2nd Avenue and 3rd Avenue in the City of Victorville.

This traffic study has been prepared to meet the traffic study requirements for the City of Victorville and assesses the forecast traffic operations associated with the proposed project and its impact on the local street network. This report is being submitted to you for review and forwarding to the City of Victorville.

Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

Sincerely,

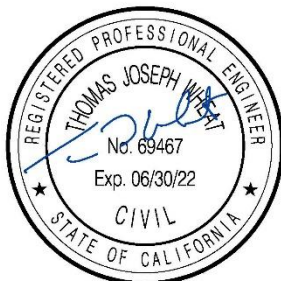
A handwritten signature in black ink, appearing to read 'Th Wheat'.

Thomas Wheat, PE, TE
President

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David Chew, PTP
Transportation Planner

Registered Civil Engineer #69467
Registered Traffic Engineer #2565



A handwritten signature in black ink, appearing to read 'Jeffrey Chinchilla'.

Jeffrey Chinchilla, PE
Project Engineer

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JN: LVA-19-002

Table of Contents Page

1.0 EXECUTIVE SUMMARYVI

1.1 SUMMARY OF ANALYSIS RESULTS.....VIII

1.2 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS.....X

1.3 SUMMARY OF IMPACTS AND RECOMMENDED IMPROVEMENTSX

1.4 SUMMARY OF LOCAL AND REGIONAL FUNDING MECHANISMSXI

2.0 INTRODUCTION.....1

2.1 PROJECT DESCRIPTION.....1

2.2 STUDY AREA2

2.3 ANALYSIS METHODOLOGY5

2.3.1 Intersection Analysis Methodology5

2.3.2 Vehicle Miles Traveled (VMT) Analysis8

2.3.3 Traffic Signal Warrant Analysis Methodology.....8

2.4 PERFORMANCE CRITERIA.....9

2.4.1 City of Victorville.....9

2.4.2 City of Hesperia.....9

2.5 THRESHOLDS OF SIGNIFICANCE9

2.5.1 City of Victorville.....10

2.5.2 City of Hesperia.....10

3.0 EXISTING CONDITIONS11

3.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS11

3.2 CITY OF VICTORVILLE GENERAL PLAN CIRCULATION ELEMENT11

3.3 EXISTING BICYCLE AND PEDESTRIAN FACILITIES.....11

3.4 EXISTING PUBLIC TRANSIT SERVICES13

3.5 EXISTING TRAFFIC VOLUMES.....13

3.6 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS17

4.0 PROPOSED PROJECT18

4.1 PROJECT DESCRIPTION.....18

4.2 PROJECT TRIP GENERATION19

4.3 PROJECT TRIP DISTRIBUTION19

4.4 MODAL SPLIT.....19

5.0 EXISTING PLUS PROJECT CONDITIONS (EP)24

5.1 ROADWAY IMPROVEMENTS24

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUMES24

5.3 EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS24

5.4 EXISTING PLUS PROJECT CONDITIONS SIGNAL WARRANT ANALYSIS30

5.5 EXISTING PLUS PROJECT RECOMMENDED IMPROVEMENTS30

6.0 PROJECT OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS (OYNP)32

6.1 ROADWAY IMPROVEMENTS32

6.2 PROJECT OPENING YEAR WITHOUT PROJECT TRAFFIC VOLUMES.....32

6.3	PROJECT OPENING YEAR WITHOUT PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS	32
7.0	PROJECT OPENING YEAR (2023) WITH PROJECT CONDITIONS (OYWP)	36
7.1	ROADWAY IMPROVEMENTS	36
7.2	PROJECT OPENING YEAR WITH PROJECT TRAFFIC VOLUMES	36
7.3	PROJECT OPENING YEAR WITH PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS 36	
7.4	PROJECT OPENING YEAR WITH PROJECT CONDITIONS SIGNAL WARRANT ANALYSIS	42
7.5	PROJECT OPENING YEAR WITH PROJECT RECOMMENDED IMPROVEMENTS	42
8.0	FUTURE YEAR (2033) WITHOUT PROJECT CONDITIONS (2033 NP)	44
8.1	ROADWAY IMPROVEMENTS	44
8.2	FUTURE YEAR (2033) WITHOUT PROJECT TRAFFIC VOLUMES	44
8.3	FUTURE YEAR WITHOUT PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS	44
9.0	FUTURE YEAR (2033) WITH PROJECT CONDITIONS (2033WP)	48
9.1	ROADWAY IMPROVEMENTS	48
9.2	FUTURE YEAR (2033) WITH PROJECT TRAFFIC VOLUMES	48
9.3	FUTURE YEAR (2033) WITH PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS	48
9.4	FUTURE YEAR (2033) WITH PROJECT CONDITIONS SIGNAL WARRANT ANALYSIS	54
9.5	FUTURE YEAR (2033) WITH PROJECT RECOMMENDED IMPROVEMENTS	54
10.0	VEHICLE MILES TRAVELED (VMT) ANALYSIS	56
11.0	CONCEPTUAL STRIPING	57
11.1	ON-SITE ROADWAY IMPROVEMENTS	57
11.2	CONCEPTUAL STRIPING	57
12.0	MITIGATION AND FAIR SHARE	59
12.1	MITIGATION MEASURES	59
12.2	FAIR SHARE CALCULATIONS	59

List of Tables	Page
Table 1: HCM – LOS & Delay Ranges – Signalized Intersections	6
Table 2: HCM – LOS & Delay Ranges – Unsignalized Intersections.....	8
Table 3: Roadway Characteristics within Study Area.....	11
Table 4: Intersection Analysis – Existing Conditions.....	17
Table 5: Proposed Project AM/PM Peak Hour Trip Generation	20
Table 6: Cumulative Projects List.....	22
Table 7: Intersection Analysis – Existing Plus Project Conditions	29
Table 8: Signal Warrant Analysis – EP Conditions.....	30
Table 9: Intersection Analysis – EP Conditions with Recommended Improvements	31
Table 10: Intersection Analysis – OYNP Conditions	35
Table 11: Intersection Analysis – OYWP Conditions	41
Table 12: Signal Warrant Analysis – OYWP Conditions.....	42
Table 13: Intersection Analysis – OYWP Conditions with Recommended Improvements	43
Table 14: Intersection Analysis – 2033 NP Conditions.....	47
Table 15: Intersection Analysis – 2033WP Conditions.....	53
Table 16: Signal Warrant Analysis – 2033WP Conditions	54
Table 17: Intersection Analysis – 2033WP Conditions with Recommended Improvements.....	55
Table 18: Fair Share Calculations	59

List of Exhibits	Page
Exhibit 1: Proposed Project Site Plan.....	4
Exhibit 2: Project Location and Proposed TIA Study Area	7
Exhibit 3: Lane Geometry and Intersection Controls.....	12
Exhibit 4: Existing AM Peak Hour Volumes.....	15
Exhibit 5: Existing PM Peak Hour Volumes	16
Exhibit 6: Trip Distribution at Study Intersections	21
Exhibit 7: Cumulative Project Map	23
Exhibit 8: Existing Plus Project AM Peak Hour Volumes	25
Exhibit 9: Existing Plus Project PM Peak Hour Volumes	27
Exhibit 10: OYNP (2023) AM Peak Hour Volumes.....	33
Exhibit 11: OYNP (2023) PM Peak Hour Volumes.....	34
Exhibit 12: OYWP (2023) AM Peak Hour Volumes.....	37
Exhibit 13: OYWP (2023) PM Peak Hour Volumes	39
Exhibit 14: Future Year (2033) without Project AM Peak Hour Volumes	45
Exhibit 15: Future Year (2033) without Project PM Peak Hour Volumes	46
Exhibit 16: Future Year (2033) with Project AM Peak Hour Volumes.....	49
Exhibit 17: Future Year (2033) with Project PM Peak Hour Volumes.....	51
Exhibit 18: Conceptual Striping Plan.....	58

Appendices

Appendix A: Scoping Agreement and Victorville Roadway Classifications and Cross Sections

Appendix B: Existing Traffic Counts

Appendix C: HCM Analysis Sheets

Appendix D: Signal Warrant Analysis Sheets

1.0 EXECUTIVE SUMMARY

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed Bear Valley Marketplace located along the north side of Bear Valley Road between 2nd Avenue and 3rd Avenue in the City of Victorville. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Victorville via a scoping agreement (See **Appendix A**) and is pursuant to applicable City of Victorville, County of San Bernardino and Caltrans traffic impact analysis guidelines.

The proposed project will consist of the following land uses:

Parcel A

- 16 pump gas station with 3,500 square feet convenience store

Parcel B

- 4,400 square feet fast food with drive thru

Parcel C1

- 6,100 square feet of commercial retail space
- 6,600 square feet of fast food with drive thru

Parcel C2

- 55,989 square feet of commercial retail space

Parcel C3

- 10,080 square feet of medical office space

Parcel D

- 376 dwelling unit multi-family residential complex

Parcel E

- 10,000 square feet of general office space
- 139,091 square feet of storage space.

The site is currently zoned as General Commercial Transitional (C-2T) and classified as Commercial in the City of Victorville General Plan Land Use and Zoning District Map. The project site is currently vacant. The proposed project land use is permitted in the zone and does not require a zone change or General Plan amendment.

Site access is planned via two full-access driveways on 3rd Avenue, three right-in right-out driveways on Bear Valley Road, two full-access driveways on 2nd Avenue, and one right-in right-out driveway on 2nd Avenue.

The proposed project is anticipated to be built in two phases. The first phase of the project will consist of the northeast corner of 3rd Avenue and Bear Valley Road, the northwest corner of 2nd Avenue and Bear Valley

Road, and the construction of a raised median. The entire project is expected to be completed and generating traffic in 2023. A growth rate of 2% was used to account for 2023 volumes while a growth rate of 1.5% was used for Future Year (2033) volumes. The Future Year growth rate was developed using the San Bernardino Transportation Analysis Model (SBTAM).

The proposed project is projected to generate 667 net total AM peak hour trips, 816 net total PM peak hour trips and 10,694 net total daily trips after City of Victorville approved pass-by reductions.

The following twenty (20) intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. I-15 SB Ramps / Bear Valley Rd
2. I-15 NB Ramps / Bear Valley Rd
3. 7th Ave / Bear Valley Rd
4. 3rd Ave / Bear Valley Rd
5. 2nd Ave / Bear Valley Rd
6. Ridgecrest Rd / Bear Valley Rd
7. Hesperia Rd / Jasmine St
8. 2nd Ave / Jasmine St
9. 2nd Ave / Silica Dr
10. 3rd Ave / Silica Dr
11. 3rd Ave / Sequoia St
12. 2nd Ave / Sequoia St
13. 3rd Ave / Project Driveway 1
14. 3rd Ave / Project Driveway 2
15. Project Driveway 3 / Bear Valley Rd
16. Project Driveway 4 / Bear Valley Rd
17. Project Driveway 5 / Bear Valley Rd
18. 2nd Ave / Project Driveway 6
19. 2nd Ave / Project Driveway 7
20. 2nd Ave. / Project Driveway 8.

The study intersections are analyzed for the following study scenarios:

- Existing Conditions (Existing);
- Existing Plus Project Conditions (EP);
- Project Opening Year 2023 without Project Conditions (OYNP);
- Project Opening Year 2023 with Project Conditions (IYWP);
- Future Year 2033 without Project Conditions (2033NP); and
- Future Year 2033 with Project Conditions (2033WP).

1.1 SUMMARY OF ANALYSIS RESULTS

Table ES-1 summarizes the results of the intersection level of service analysis based on the City of Victorville thresholds of significance for analyzing transportation impacts.

Table ES-1: Summary of Traffic Impacts at Study Intersections

Intersection	Existing Plus Project	Opening Year (2023) Plus Project	Future Year (2033) Plus Project
#1 - Bear Valley Rd / I-15 SB Ramps	No Impact	No Impact	No Impact
#2 - Bear Valley Rd / I-15 NB Ramps	Cumulative	Cumulative	Cumulative
#3 - Bear Valley Rd / 7th Ave	No Impact	No Impact	Cumulative
#4 - Bear Valley Rd / 3rd Ave	No Impact	No Impact	Cumulative
#5 - Bear Valley Rd / 2nd Ave	No Impact	No Impact	No Impact
#6 - Bear Valley Rd / Ridgecrest Rd	Cumulative	Cumulative	Cumulative
#7 - Jasmine St / Hesperia Rd	No Impact	No Impact	No Impact
#8 - Jasmine St / 2nd Ave	No Impact	No Impact	No Impact
#9 - Silica Dr / 2nd Ave	No Impact	No Impact	No Impact
#10 - Silica Dr / 3rd Ave	No Impact	No Impact	No Impact
#11 - Sequoia St / 3rd Ave	No Impact	No Impact	No Impact
#12 - Sequoia St / 2nd Ave	No Impact	No Impact	No Impact

According to case law such as *Los Angeles Unified Sch. Dist. V City of Los Angeles* (1997) 58 Cal. App. 4th 1019 and *Communities for A Better Env't V California Resource Agency* (2002) 103 Cal. App. 4th 98, a project that results in an increase to an impact that already exceeds the established thresholds contributes to a cumulative impact as opposed to a direct impact. Therefore, as shown in **Table ES-1** some impacts at study intersections are projected to be cumulative traffic impacts.

The proposed project will participate in the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program. The project's contribution to the aforementioned transportation improvement funding mechanisms or as a fair share contribution towards a cumulatively impacted facility should be considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate cumulative project impacts.

Existing Conditions

The study intersections are currently not operating at an acceptable LOS during the AM and PM peak hours for *existing* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS E PM Peak Hour);
- #4 - 3rd Ave/Bear Valley Rd (LOS F AM/PM Peak Hour); and
- #6 - Ridgecrest Rd / Bear Valley Rd (LOS F AM/PM Peak Hour).

Existing Plus Project (EP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *EP* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS E PM Peak Hour); and
- #6 - Ridgecrest Rd / Bear Valley Rd (LOS F AM/PM Peak Hour).

Opening Year (OYNP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *OYNP* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS F PM Peak Hour);
- #4 - 3rd Ave/Bear Valley Rd (LOS F AM/PM Peak Hour); and
- #5 - 2nd Ave/Bear Valley Rd (LOS F PM Peak Hour).

Opening Year With Project (OYWP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *OYWP* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS F PM Peak Hour); and
- #6 - Ridgecrest Rd / Bear Valley Rd (LOS F AM/PM Peak Hour).

Future Year 2033 (2033NP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Future NP* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS E AM Peak Hour/LOS F PM Peak Hour);
- #3 – 7th Ave/Bear Valley Rd (LOS E PM Peak Hour);
- #4 - 3rd Ave/Bear Valley Rd (LOS F AM/PM Peak Hour); and
- #6 - Ridgecrest Rd/Bear Valley (LOS F AM/PM Peak Hour).

Future Year 2033 With Project (2033WP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Future WP* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS E AM Peak Hour/LOS F PM Peak Hour);
- #3 - 7th Ave/Bear Valley Rd (LOS E PM Peak Hour); and
- #6 - Ridgecrest Rd/Bear Valley Rd (LOS F AM/PM Peak Hour).

1.2 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

Wherever necessary, roadways adjacent to the proposed project site and site access points will be constructed in compliance with recommended roadway classifications and respective cross-sections in the City of Victorville General Plan or as directed by the City Engineer.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City sight distance standards at the time of final grading, landscaping and street improvement plans.

Signing/stripping should be implemented in conjunction with detailed construction plans for the project site.

1.3 SUMMARY OF IMPACTS AND RECOMMENDED IMPROVEMENTS

The following improvements are recommended at the impacted study intersections for corresponding conditions to reduce peak hour delay and improve intersection LOS:

EP Recommended Improvement (EP-1): I-15 NB Ramp/Bear Valley Rd - Improve intersection to accommodate a right turn lane for westbound Bear Valley Street.

EP Recommended Improvement (EP-2): 3rd Ave/Bear Valley Rd - Signalize intersection. This improvement will be a part of project related improvements, which include the addition of the north leg of the intersection.

EP Recommended Improvement (EP-3): Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

OYWP Recommended Improvement (OYWP-1): I-15 NB Ramp/Bear Valley Rd - Improve intersection to accommodate a right turn lane for westbound Bear Valley Street.

OYWP Recommended Improvement (OYWP-2): 3rd Ave/Bear Valley Rd - Signalize intersection. This improvement will be a part of project related improvements, which include the addition of the north leg of the intersection.

OYWP Recommended Improvement (OYWP-3): Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

2033WP Recommended Improvement (2033WP-1): I-15 NB Ramp/Bear Valley Rd - Improve intersection to accommodate a right turn lane for westbound Bear Valley Street.

2033WP Recommended Improvement (2033WP-2): 7th Ave/Bear Valley Rd - Re-stripe intersection to accommodate a northbound left-turn lane, northbound through lane, and northbound right-turn lane.

2033WP Recommended Improvement (2033WP-3): 3rd Ave/Bear Valley Rd - Signalize intersection. This improvement will be a part of project related improvements, which include the addition of the north leg of the intersection.

2033WP Recommended Improvement (2033WP-4): Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

1.4 SUMMARY OF LOCAL AND REGIONAL FUNDING MECHANISMS

The proposed project will contribute to the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program. The project’s contribution to the aforementioned transportation improvement funding mechanisms or as a fair share contribution towards a cumulatively impacted facility should be considered sufficient to address the project’s fair share towards mitigation measure(s) designed to alleviate cumulative project impacts. **Table ES-2** calculates the proposed project’s fair share percentage at impacted intersections.

Table ES-2: Fair Share Calculations

Intersection	Existing AM&PM Peak Hour Volume (A)	2033 AM & PM Peak Hour		
		Total Volume (B)	Project Volume (C)	Fair Share (C)/(B-A)
#2 - I-15 NB Ramp/Bear Valley Rd	7813	9997	373	17.08%
#3 - 7 th Ave/Bear Valley Rd	8074	10466	520	21.74%
#6 - Ridgecrest Rd/Bear Valley Rd	11466	14349	224	7.77%

2.0 INTRODUCTION

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed Bear Valley Marketplace located along the north side of Bear Valley Road between 2nd Avenue and 3rd Avenue in the City of Victorville. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Victorville via a scoping agreement (See **Appendix A**) and is pursuant to applicable City of Victorville, County of San Bernardino and Caltrans traffic impact analysis guidelines.

2.1 PROJECT DESCRIPTION

The proposed project will consist of the following land uses:

Parcel A

- 16 pump gas station with 3,500 square feet convenience store

Parcel B

- 4,400 square feet fast food with drive thru

Parcel C1

- 6,100 square feet of commercial retail space
- 6,600 square feet of fast food with drive thru

Parcel C2

- 55,989 square feet of commercial retail space

Parcel C3

- 10,080 square feet of medical office space

Parcel D

- 376 dwelling unit multi-family residential complex

Parcel E

- 10,000 square feet of general office space
- 139,091 square feet of storage space.

The site is currently zoned as General Commercial Transitional (C-2T) and classified as Commercial in the City of Victorville General Plan Land Use and Zoning District Map. The project site is currently vacant. The proposed project land use is permitted in the zone and does not require a zone change or General Plan amendment.

Site access is planned via two full-access driveways on 3rd Avenue, three right-in right-out driveways on Bear Valley Road, two full-access driveways on 2nd Avenue, and one right-in right-out driveway on 2nd Avenue.

The proposed project is anticipated to be built in two phases. The first phase of the project will consist of the northeast corner of 3rd Avenue and Bear Valley Road, the northwest corner of 2nd Avenue and Bear Valley Road, and the construction of a raised median. The entire project is expected to be completed and generating traffic in 2023. A growth rate of 2% was used to account for 2023 volumes while a growth rate of 1.5% was used for Future Year (2033) volumes. The Future Year growth rate was developed using the San Bernardino Transportation Analysis Model (SBTAM).

Figure 1: *Project Location* shows the project site location. **Exhibit 1** shows the proposed project site plan.

2.2 STUDY AREA

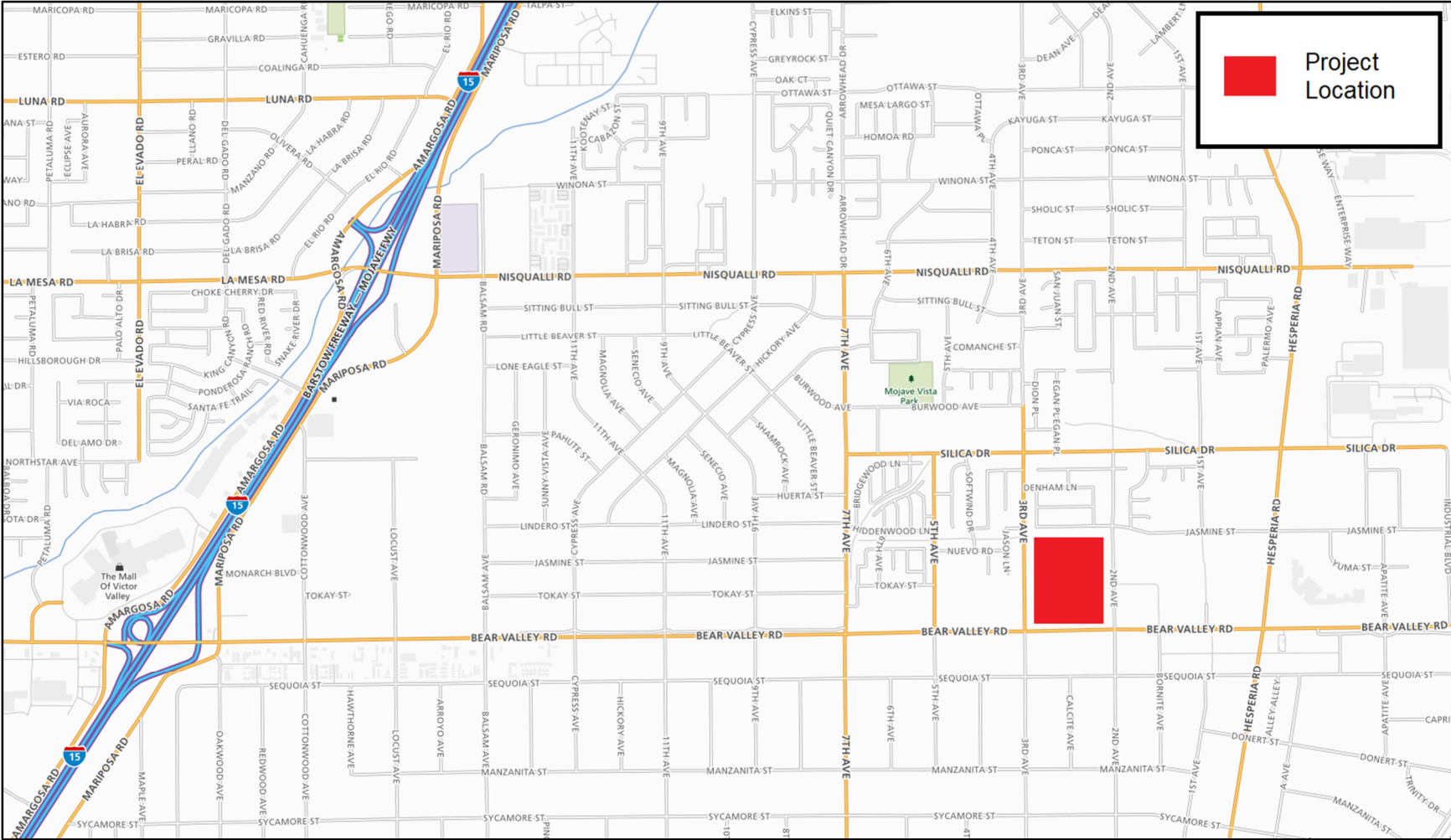
The following twenty (20) intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

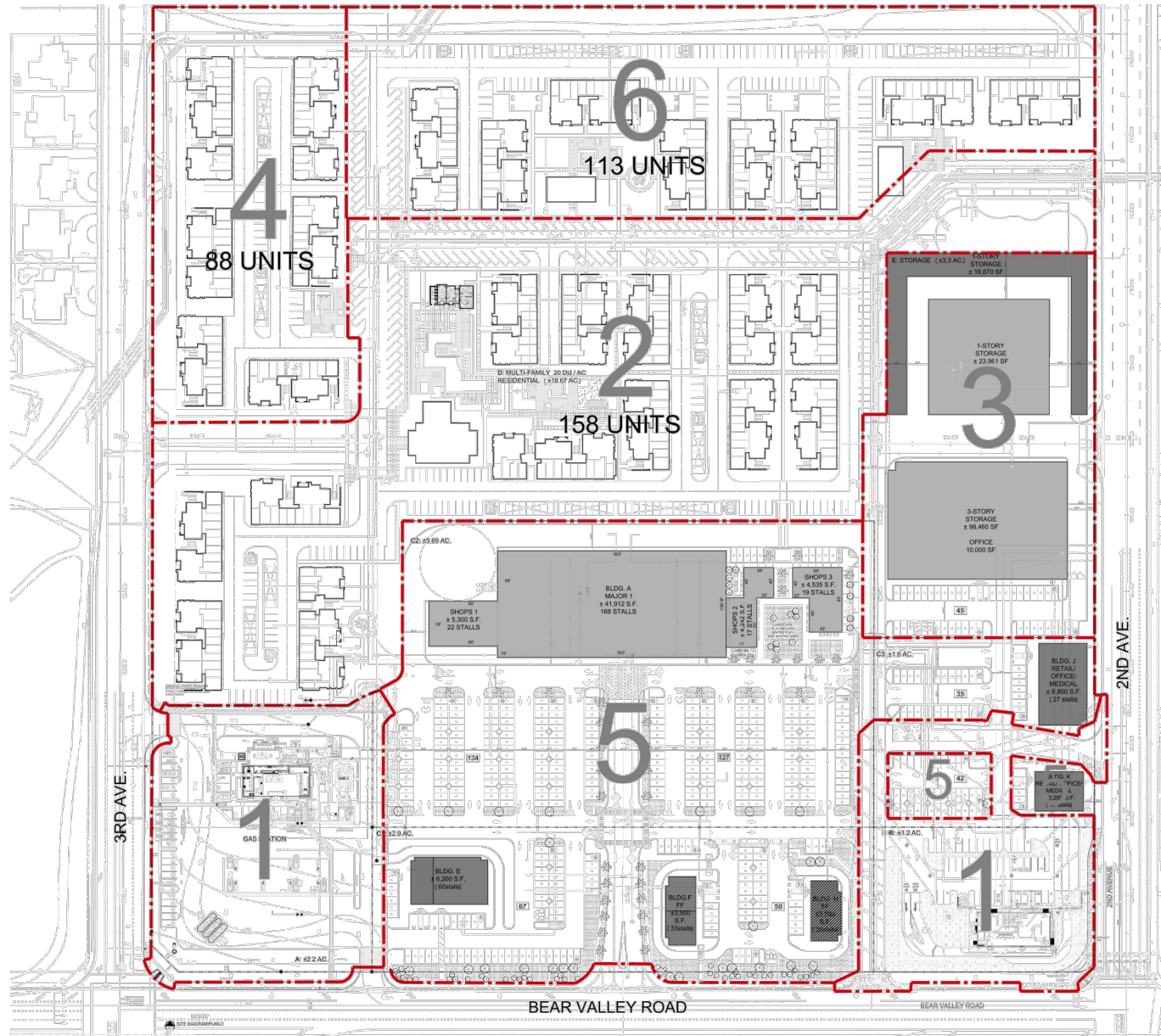
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12. 2nd Ave / Sequoia St
13. 3rd Ave / Project Driveway 1
14. 3rd Ave / Project Driveway 2
15. Project Driveway 3 / Bear Valley Rd
16. Project Driveway 4 / Bear Valley Rd
17. Project Driveway 5 / Bear Valley Rd
18. 2nd Ave / Project Driveway 6
19. 2nd Ave / Project Driveway 7
20. 2nd Ave. / Project Driveway 8.

The study intersections are all located within the City of Victorville.

This traffic analysis follows the City of Victorville standards for traffic analysis, which have adopted the guidelines contained in the *County of San Bernardino Transportation Department Traffic Impact Analysis Preparation Guide (April, 2008)*.

Figure 1: Project Location





SUMMARY:

PARCEL A (GAS STATION)	= ± 2.1 AC.
RETAIL	= ± 3,500 S.F.
PARKING PROVIDED	= ± 38 SPACES

PARCEL B (McDonald)	= ± 1.2 AC.
FAST FOOD	= ± 4,400 S.F.
PARKING REQ.	= 44 SPACES
PARKING PROVIDED	= ± 43 SPACES

PARCEL C1 (RETAIL)	= ± 2.9 AC
PADS W/ DRIVE THRU	= ± 12,700 S.F.

PAD E	= 6,200 SF
1,800 SF DRIVE-THRU (See delineated area)	
4,400 SF SHOPS	

PAD F	= 3,500 SF
1,800 SF DRIVE-THRU (See delineated area)	
1,700 SF SHOPS	

PAD H	= 3,000 SF
3,000 SF DRIVE-THRU (See delineated area)	

PARKING PROVIDED	
DRIVE THRU	= ± 117 SPACES
RATIO	= 10/1000

PARCEL C2 (RETAIL/ OFFICE)	= ± 5.89 AC
MAJOR 1	= ± 41,912 S.F.
PADS AND SHOPS	= ± 14,077 S.F.

PARCEL C3 (RETAIL/ OFFICE)	= ± 1.6 AC
RETAIL/OFFICE/MEDICAL	= ± 10,080 S.F.

TOTAL	= ± 66,069 S.F.
PARKING PROVIDED	= ± 338 SPACES
OVERALL PARKING RATIO	= ± 5 /1000

PARCEL D (RESIDENTIAL)	= ± 18.67 AC
DWELLING UNITS	= 376 UNITS
GROSS AREA	= 483,736 SF
PARKING REQ'D.	= 750
PARKING PROVIDED	= 771

PARCEL E	= ± 3.3 AC
STORAGE / OFFICE	= ± 139,091 SF.
	= 10,000 SF.

OFFICE PARKING RATIO	= 4/1000
PARKING PROVIDED	= ±45 SPACES

NOTE:
(2) TWO UNITS WILL BECOME MAINTENANCE ROOMS

PROPOSED SITE PLAN
SCALE: 1" = 50' -0"
Conceptual Design Package

VICTORVILLE CONNECTION
VICTORVILLE, CA

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NOTE: THIS INFORMATION IS CONCEPTUAL IN NATURE AND IS SUBJECT TO APPROPRIATE REVIEW BY THE LOCAL, STATE, AND FEDERAL AGENCIES. ANY CHANGES WILL BE MADE BY THE ARCHITECT.
AUGUST 13, 2020

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DLR Group



Exhibit 1: Proposed Project Site Plan



Exhibit 2 shows the location of the study intersections and roadway segments which are analyzed for the following study scenarios:

- Existing Conditions (Existing);
- Existing Plus Project Conditions (EP);
- Project Opening Year 2023 without Project Conditions (OYNP);
- Project Opening Year 2023 with Project Conditions (IYWP);
- Future Year 2033 without Project Conditions (2033NP); and
- Future Year 2033 with Project Conditions (2033WP).

Traffic operations are evaluated for the following time periods:

- Weekday AM Peak Hour occurring within 7:00 AM to 9:00 AM; and
- Weekday PM Peak Hour occurring within 4:00 PM to 6:00 PM.

2.3 ANALYSIS METHODOLOGY

2.3.1 Intersection Analysis Methodology

Level of Service (LOS) is commonly used to describe the quality of flow on roadways and at intersections using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions). The definitions for LOS for interruption of traffic flow differ depending on the type of traffic control (traffic signal, unsignalized intersection with side street stops, unsignalized intersection with all-way stops). The *Highway Capacity Manual (HCM) 6* (Transportation Research Board, 2016) methodology expresses the LOS of an intersection in terms of delay time for the intersection approaches. The HCM methodology utilizes different procedures for different types of intersection control.

The City of Victorville traffic study guidelines require signalized intersection operations be analyzed utilizing the HCM 6th Edition methodology. Intersection LOS for signalized intersections is based on the intersections average control delay for all movements at the intersection during the peak hour. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Table 1 describes the general characteristics of traffic flow and accompanying delay ranges at signalized intersections.

Collected peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. It is a common practice in LOS analysis to conservatively use a peak 15-minute flow rate applied to the entire hour to derive flow rates in vehicles per hour that are used in the LOS analysis. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume.

PHF = [Hourly Volume]/ [4 * Peak 15-Minute Volume]. The use of a 15-minute PHF produces a more detailed and conservative analysis compared to analyzing vehicles per hour. Existing PHFs, obtained from the existing traffic counts have been used for all analysis scenarios in this study.

Table 1: HCM – LOS & Delay Ranges – Signalized Intersections

Level Of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long-standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual*, HCM6 Edition (Washington D.C., 2016).

The City of Victorville traffic study guidelines also require unsignalized intersection operations be analyzed utilizing the HCM 6th Edition methodology. Intersection operation for unsignalized intersections is based on the weighted average control delay expressed in seconds per vehicle.

At a two-way or side-street stop-controlled intersection, LOS is calculated for each stop-controlled minor street movement, for the left-turn movement(s) from the major street, and for the intersection as a whole. For approaches consisting of a single lane, the delay is calculated as the average of all movements in that lane. For all-way stop-controlled intersection, LOS is computed for the intersection as a whole.

Table 2 describes the general characteristics of traffic flow and accompanying delay ranges at unsignalized intersections.

This analysis utilizes *PTV Vistro*, Version 7 analysis software for all signalized and unsignalized intersections. *Vistro* is a macroscopic traffic software program that is based on the signalized intersection capacity analysis specified in Chapter 16 of the HCM. The level of service and capacity analysis performed within *Vistro* takes the optimization and coordination of signalized intersections within a network into consideration.

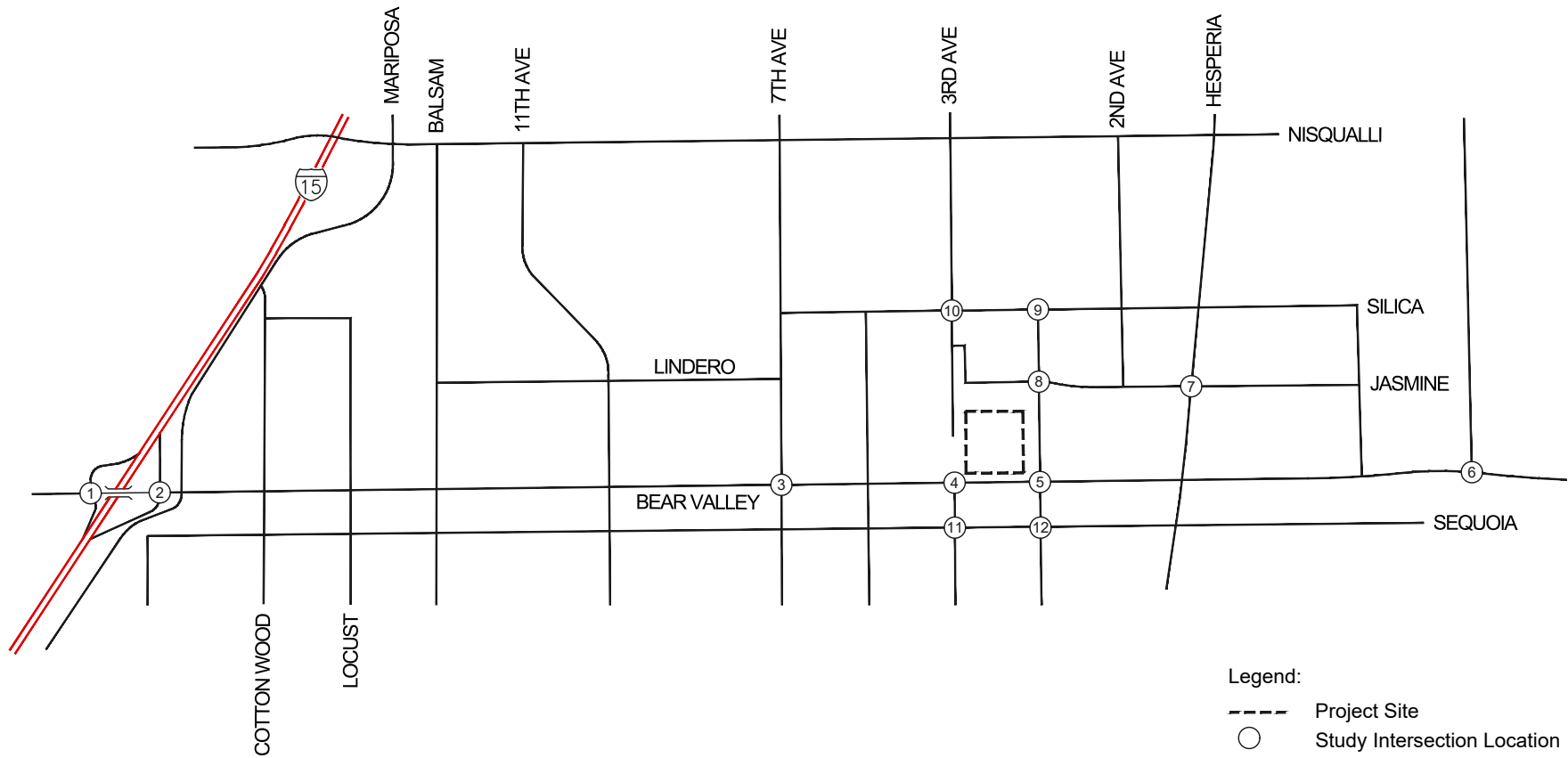


Exhibit 2: Project Location and Proposed TIA Study Area



Table 2: HCM – LOS & Delay Ranges – Unsignalized Intersections

Level Of Service	Description	Delay (in seconds)
A	Little or no delays.	0 – 10.00
B	Short traffic delays.	10.01 – 15.00
C	Average traffic delays.	15.01 – 25.00
D	Long traffic delays. Multiple vehicles in queue.	25.01 – 35.00
E	Very long delays. Demand approaching capacity of intersection	35.01 – 50.00
F	Very constrained flow with extreme delays and intersection capacity exceeded.	> 50.01

Source: Transportation Research Board, *Highway Capacity Manual*, HCM6 Edition (Washington D.C., 2016).

2.3.2 Vehicle Miles Traveled (VMT) Analysis

Senate Bill (SB) 743 was adopted in 2013 requiring the Governor’s Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within the California Environmental Quality Act (CEQA). For land use projects, OPR has identified Vehicle Miles Traveled (VMT) as the new metric for transportation analysis under CEQA. The regulatory changes to the CEQA guidelines that implement SB 743 were approved on December 28th, 2018 with an implementation date of July 1st, 2020 as the new metric.

Consistent with the new metric of VMT for analysis of transportation impacts under CEQA, this analysis follows the VMT guidelines set forth by the City of Victorville VMT Analysis Guidelines (June 2020). The guidelines provide various screening criteria for land use projects. However, based on the screening thresholds established in the guidelines, the project could not be screened out and therefore, a detailed VMT analysis was conducted to evaluate the project impact.

As outlined in the City guidelines, the San Bernardino County Traffic Analysis Model (SBTAM) was used to estimate the project VMT. Project VMT per service population was compared with the City’s General Plan buildout scenario VMT per service population to identify potential project impacts.

2.3.3 Traffic Signal Warrant Analysis Methodology

Traffic signal warrants refer to a list of established criteria utilized by Caltrans and other public agencies to quantitatively justify or determine the potential need for installation of a traffic signal at an unsignalized location. This analysis uses the signal warrant criteria in the latest edition of the Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition, for all unsignalized study intersections.

The CA MUTCD contains nine different signal warrants for existing conditions based on several different factors such as vehicular volumes, pedestrian volumes, accident frequency, location of schools and location

of railroad tracks. This TIA utilizes the four-hour volume-based warrant (Warrant 2) and peak-hour signal warrant (Warrant 3) as the appropriate traffic signal warrant analysis for all analysis.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal may be warranted. Satisfying a signal warrant does not require that a traffic signal be installed at a location, rather other traffic factors and conditions should be evaluated to determine if signalization is justified. Additionally, signal warrants do not necessarily correlate with level of service; an intersection may satisfy a warrant and still be operating at or better than LOS D, or be operating at a deficient LOS (E or F) and not meet signal warrants.

2.4 PERFORMANCE CRITERIA

2.4.1 *City of Victorville*

The City of Victorville has established level of service “D” or better as acceptable LOS for all intersections along the designated street and highway system in the City’s General Plan Circulation Element. The City of Victorville has established LOS C as acceptable LOS for roadway segments under the City’s jurisdiction per the City’s General Plan EIR.

2.4.2 *City of Hesperia*

The City of Hesperia strives to achieve and maintain a LOS D or better on all roadways and intersections LOS E during peak hours shall be considered acceptable through freeway interchanges and major corridors (Bear Valley Road, Main Street/Phelan Road, and Highway 395).

2.5 THRESHOLDS OF SIGNIFICANCE

According to California Environmental Quality Act (CEQA) guidelines, a project is considered to cause a significant impact to a transportation system if it:

- Conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel.
- Conflicts with an applicable congestion management program (CMP), including, but not limited to level of service standards, travel demand measures, or other standards established by the County Congestion Management Agency for roadways or highways.
- Conflicts with adopted policies or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decreases the performance or safety of such facilities.

2.5.1 City of Victorville

City of Victorville intersection traffic impacts would occur under the following conditions:

- If the project contributes measurable traffic to an intersection or roadway segment operating at LOS D or better or a volume-to-capacity ratio of 0.95 or lower for without project conditions, and the addition of project trips causes intersection LOS to degrade to LOS E or worse, or volume-to-capacity ratio to increase it greater than 0.95.
- If a project contributes measurable traffic to an intersection or roadway segment operating at a deficient LOS (LOS E or F) for without project conditions.

2.5.2 City of Hesperia

Within the City of Hesperia, a project would have a traffic impact at study intersections or roadway segments if the project causes the level of service to fall from acceptable LOS (LOS D) to unacceptable LOS (LOS E/F). If a project contributes to an already unacceptable LOS, the impact would be considered cumulative.

3.0 EXISTING CONDITIONS

3.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS

The characteristics of the roadway system in the vicinity of the proposed project site are described in **Table 3**.

Table 3: Roadway Characteristics within Study Area

Roadway	Classification ¹	Jurisdiction	Direction	Existing Travel Lanes	Median Type ²	Speed Limit (mph)	On-Street Parking
Bear Valley Rd	Super Arterial	Victorville	East-West	6	PM	40-50	No
Ridgecrest Rd	Arterial	Victorville	North-South	2-4	PM	55	No
Hesperia Rd	Super Arterial	Victorville	North-South	4	PM	35-45	No
7 th Avenue	Arterial	Victorville	North-South	2	NM	40-45	No
3 rd Avenue	Arterial	Victorville	North-South	2	NM	30	Yes
2 nd Avenue	Arterial	Victorville	North-South	2-4	NM-PM	45	Yes
Jasmine St	Arterial	Victorville	East-West	4	NM-PM	40-45	Yes
Silica Dr	Collector	Victorville	East-West	2	NM	35	Yes
Sequoia St	Local	Hesperia	East-West	2	NM	25	No

1: Sources: City of Victorville General Plan (September, 2008)

2: TWLTL = Two-Way Left-Turn Lane, RM= Raised Median, PM = Painted Median, NM = No Median.

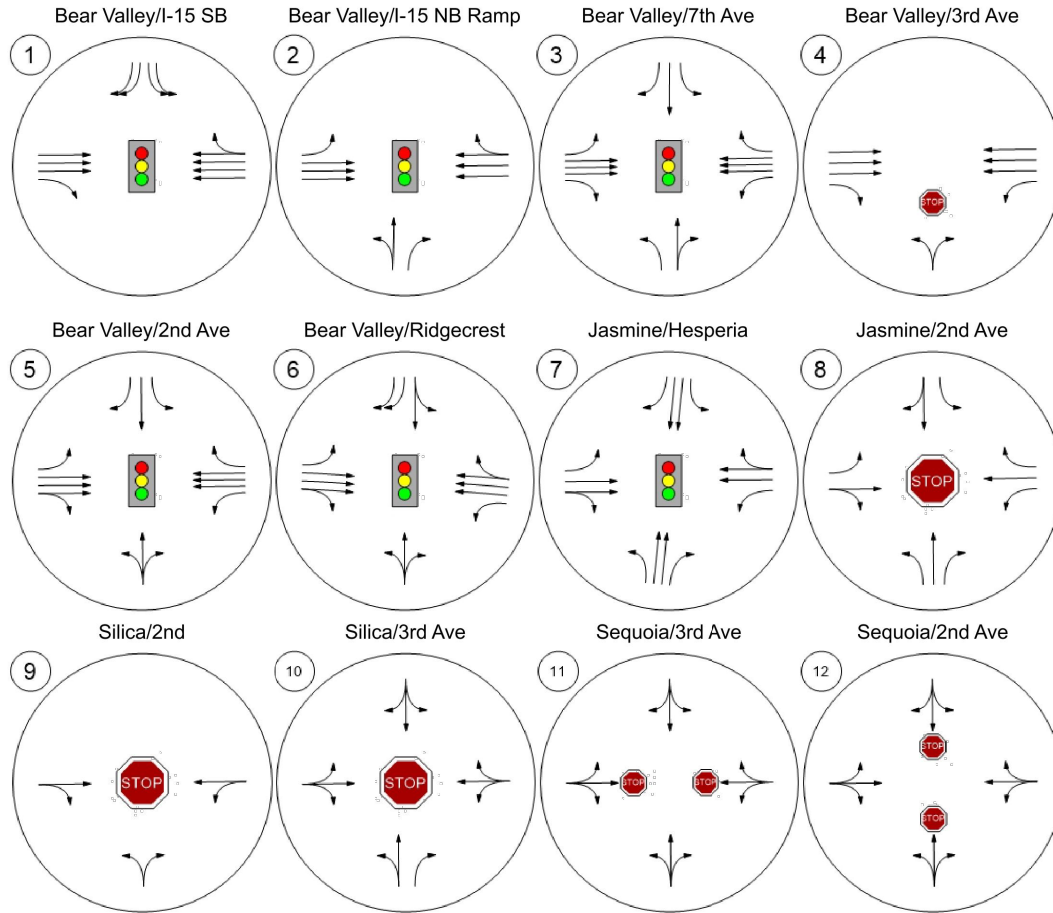
Exhibit 3 show existing conditions study area intersection and roadway geometry.

3.2 CITY OF VICTORVILLE GENERAL PLAN CIRCULATION ELEMENT

The proposed project site is located within the City of Victorville. **Appendix A** contains the current City of Victorville General Plan Circulation Element future transportation network and roadway cross sections.

3.3 EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Within the study area, Class II bike lanes exist on Hesperia Road from Donert Street to Nisqualli Road and on Sequoia Street from Cottonwood Avenue to Hesperia Road.:



- Legend:**
- Project Site
 - Signal-Controlled Intersection
 - Stop-Controlled Intersection
 - 2U 2-Lane Undivided Roadway
 - 2D 2-Lane Divided Roadway
 - 3D 3-Lane Divided Roadway
 - 4D 4-Lane Divided Roadway
 - 6D 6-Lane Divided Roadway

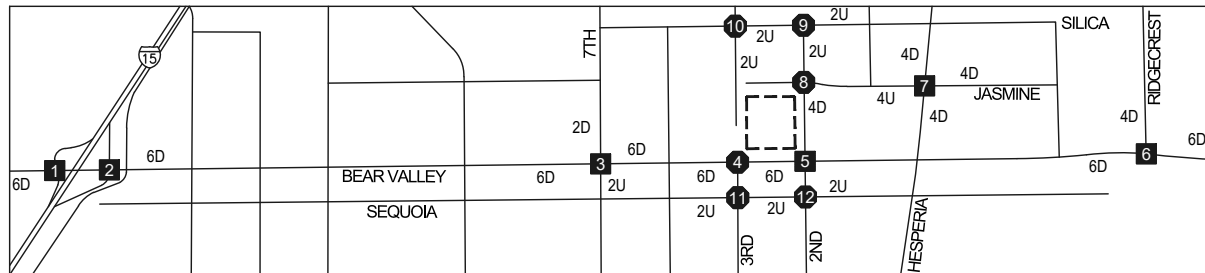


Exhibit 3: Existing Lane Geometry and Intersection Controls



According to the *City of Victorville Non-Motorized Plan* and *City of Hesperia Non-Motorized Plan*, bicycle facilities are planned on the following roadways within the study area:

Class I Off-Street Bicycle Path

- Jasmine Street west of Hesperia Road

Class II On-Street Bicycle Lanes

- Sequoia Avenue east of Interstate 15
- 7th Avenue south of Bear Valley Road

Class III On-Street Bicycle Share Routes

- 7th Avenue north of Bear Valley Road
- 3rd Avenue north of Bear Valley Road

Appendix A contains the *City of Victorville Non-Motorized Plan* and *City of Hesperia Non-Motorized Plan* transportation map.

3.4 EXISTING PUBLIC TRANSIT SERVICES

The City of Victorville is served by the Victor Valley Transit Authority (VVTA) which provides bus service throughout the Victor Valley region. **Figure 2** shows the VVTA routes in the vicinity of the project site.

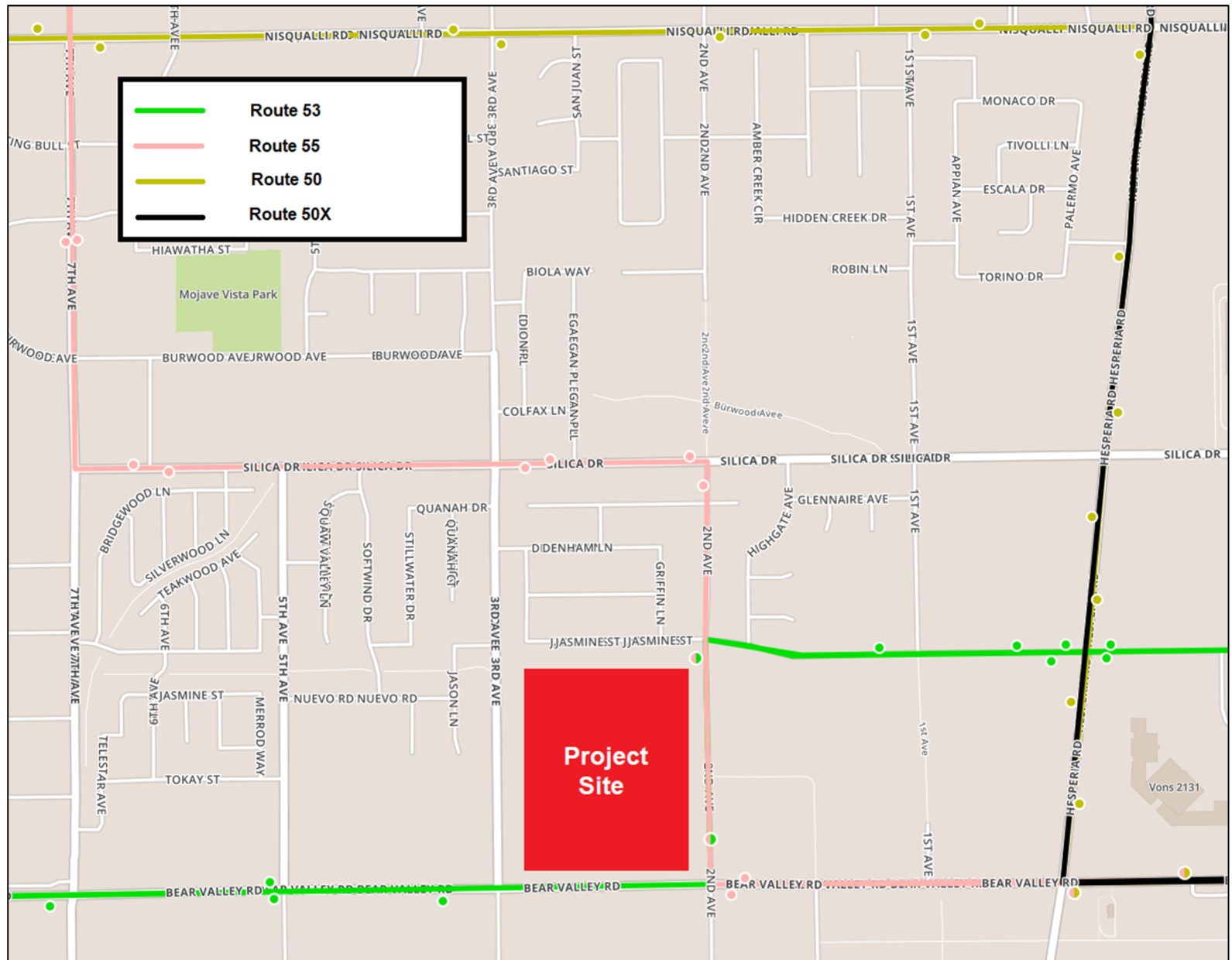
The nearest transit service is VVTA Route 53 and Route 55, with stops at the intersections of Bear Valley Rd/2nd Ave and Jasmine St/2nd Ave. Route 53 runs between Victor Valley Mall and Victor Valley College primarily via Bear Valley Road. Route 55 runs between Victorville Transfer Center and Victor Valley College primarily via Arrowhead Drive and Bear Valley Road.

3.5 EXISTING TRAFFIC VOLUMES

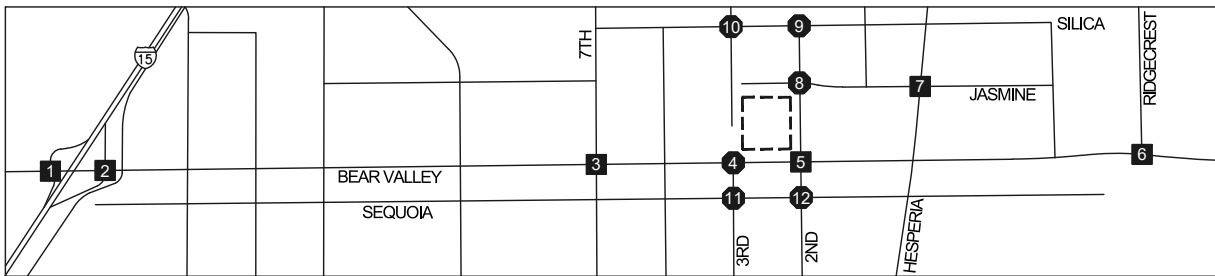
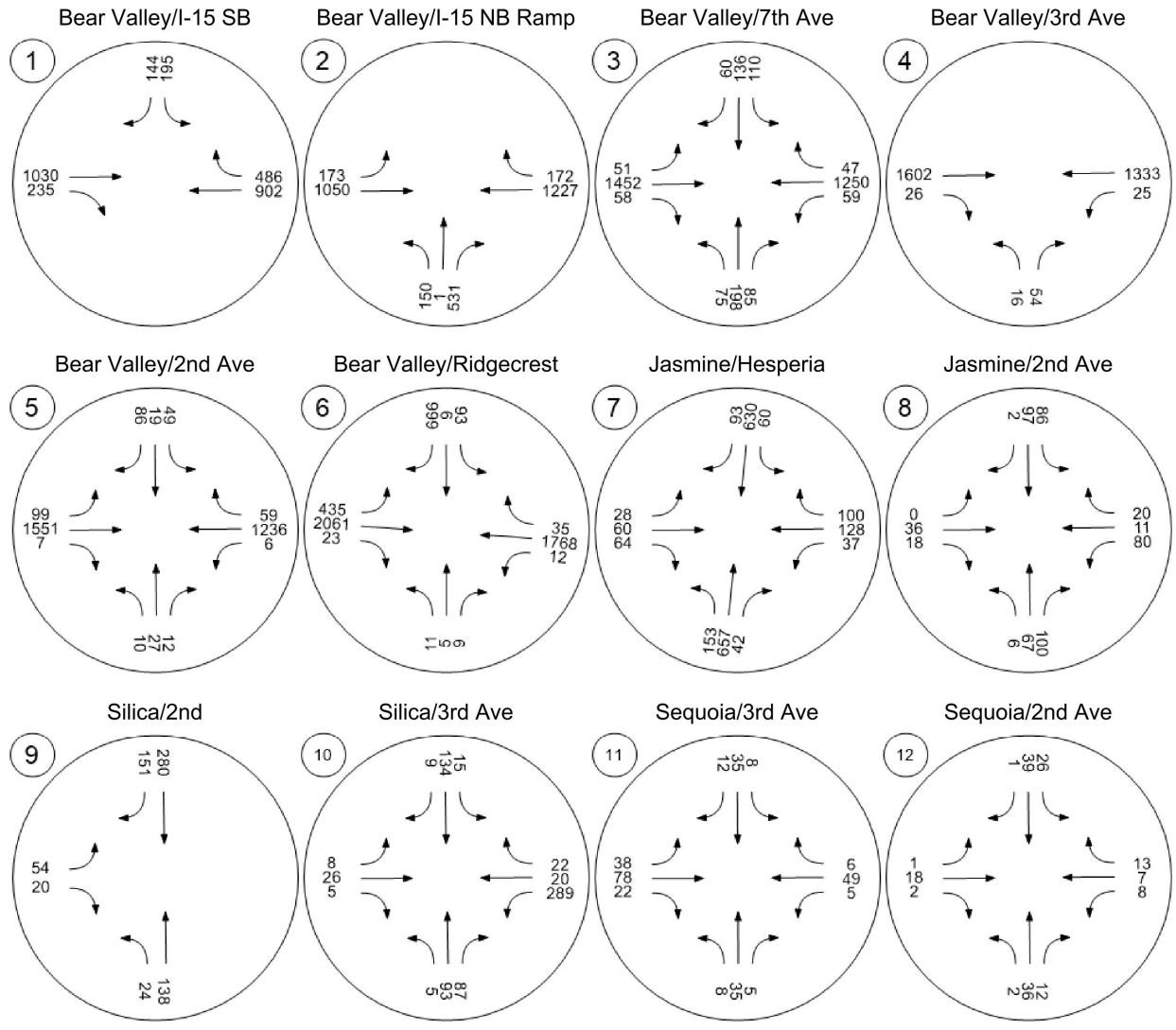
To determine the existing operation of the study intersections, AM and PM peak period traffic counts at the study intersections were collected on Thursday December 5, 2019. Counts at the intersection of Bear Valley Road/Ridgecrest Road were collected on Tuesday October 29, 2019. Detailed traffic count data is provided in **Appendix B**

Exhibit 4 and **Exhibit 5** show existing AM and PM peak hour volumes at the study intersections.

Figure 2: Victor Valley Transit Routes



Sources: Victor Valley Transit

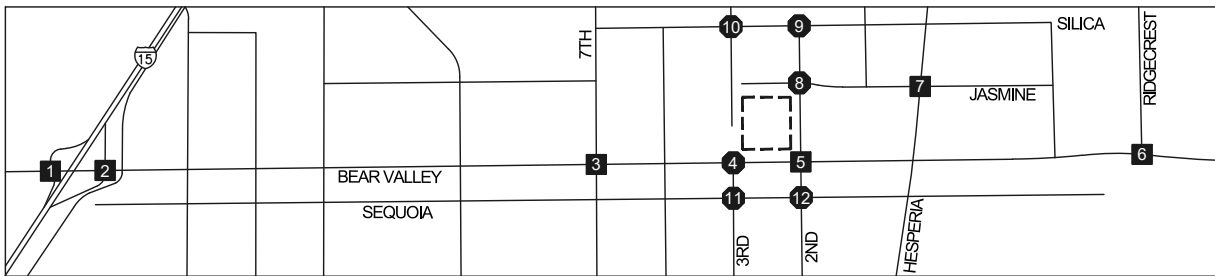
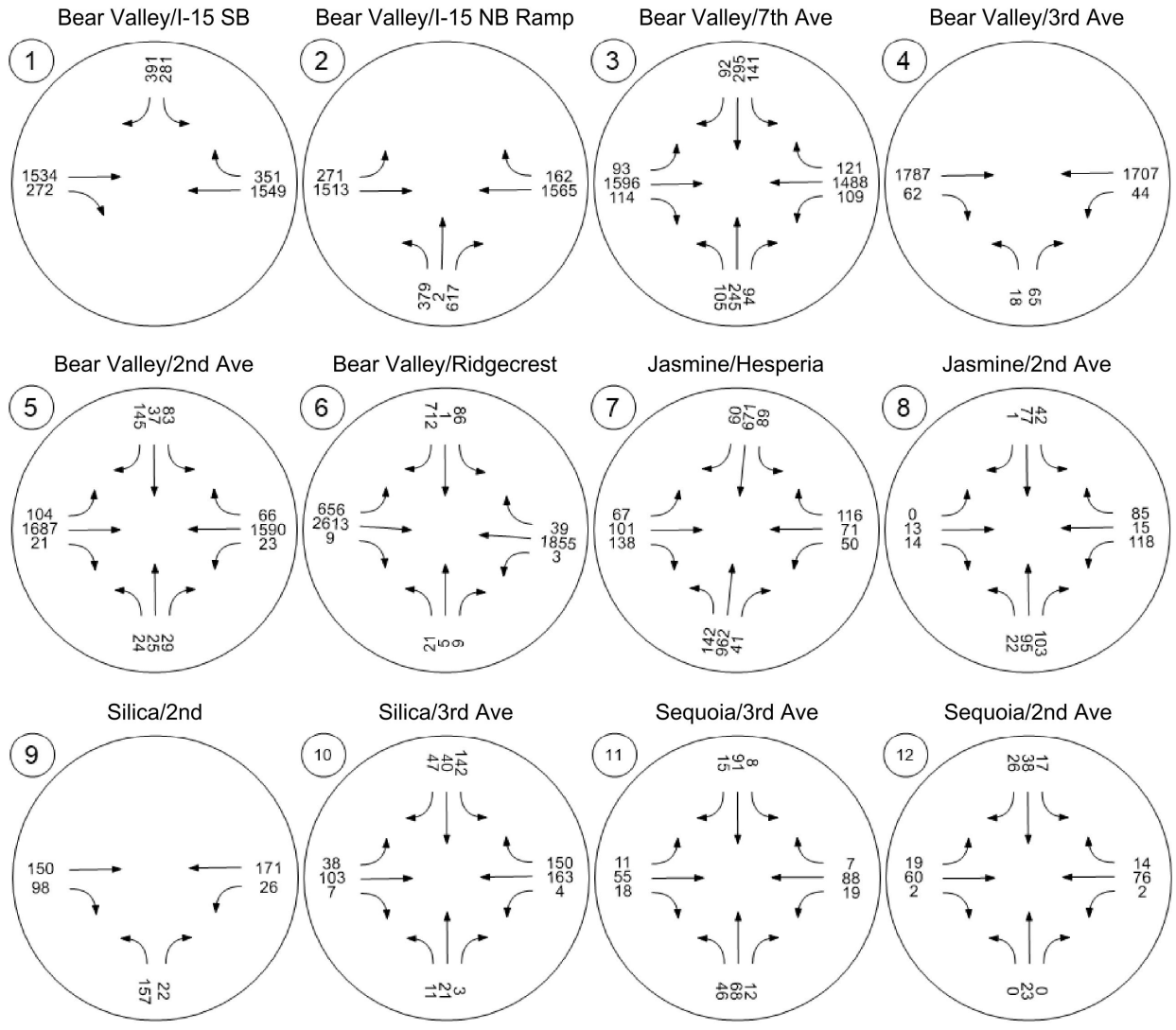


Legend:
 XX Peak Hour Volumes
 --- Project Site



Exhibit 4: Existing AM Peak Hour Intersection Volumes





Legend:
 XX Peak Hour Volumes
 - - - - Project Site



Exhibit 5: Existing PM Peak Hour Intersection Volumes



3.6 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Existing conditions AM and PM peak hour intersection analysis is shown in **Table 4**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 3**. HCM analysis sheets are provided in **Appendix C**.

Table 4: Intersection Analysis – Existing Conditions

Intersection			Control Type	Peak Hour	Existing Conditions	
					Delay ¹	LOS
1	I-15 SB	Bear Valley	Signal	AM	7.5	A
				PM	11.6	B
2	I-15 NB	Bear Valley	Signal	AM	38.9	D
				PM	76.4	E
3	7th Ave	Bear Valley	Signal	AM	25.6	C
				PM	33.0	C
4	3rd Ave	Bear Valley	OWSC	AM	65.1	F
				PM	166.1	F
5	2nd Ave	Bear Valley	Signal	AM	14.4	B
				PM	19.6	B
6	Ridgecrest	Bear Valley	Signal	AM	108.6	F
				PM	100.4	F
7	Jasmine	Hesperia	Signal	AM	23.4	C
				PM	25.9	C
8	Jasmine	2nd Ave	AWSC	AM	9.5	A
				PM	9.6	A
9	Silica	2nd Ave	AWSC	AM	11.3	B
				PM	10.8	B
10	Silica	3rd Ave	AWSC	AM	13.0	B
				PM	12.1	B
11	Sequoia	3rd Ave	TWSC	AM	11.1	B
				PM	12.6	B
12	Sequoia	2nd Ave	TWSC	AM	10.1	B
				PM	10.5	B

Note: TWSC = Two-Way Stop-Control, OWSC = One-Way Stop-Control; Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized.

As shown in **Table 4**, the study intersections are currently operating at an acceptable LOS during the AM and PM peak hours for *existing* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS E PM Peak Hour);
- #4 - 3rd Ave/Bear Valley Rd (LOS F AM/PM Peak Hour); and
- #6 - Ridgecrest Rd / Bear Valley Rd (LOS F AM/PM Peak Hour).

4.0 PROPOSED PROJECT

4.1 PROJECT DESCRIPTION

The proposed project will consist of the following land uses:

Parcel A

- 16 pump gas station with 3,500 square feet convenience store

Parcel B

- 4,400 square feet fast food with drive thru

Parcel C1

- 6,100 square feet of commercial retail space
- 6,600 square feet of fast food with drive thru

Parcel C2

- 55,989 square feet of commercial retail space

Parcel C3

- 10,080 square feet of medical office space

Parcel D

- 376 dwelling unit multi-family residential complex

Parcel E

- 10,000 square feet of general office space
- 139,091 square feet of storage space

The site is currently zoned as General Commercial Transitional (C-2T) and classified as Commercial in the City of Victorville General Plan Land Use and Zoning District Map. The project site is currently vacant. The proposed project land use is permitted in the zone and does not require a zone change or General Plan amendment.

Site access is planned via two full-access driveways on 3rd Avenue, three right-in right-out driveways on Bear Valley Road, two full-access driveways on 2nd Avenue, and one right-in right-out driveway on 2nd Avenue.

Exhibit 1 previously showed the proposed project site plan.

4.2 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic, both inbound and outbound, produced by a development. Determining trip generation for a proposed project is based on projecting the amount of traffic that the specific land uses being proposed will produce. Industry standard *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017)* trip generation rates were used to determine trip generation of for most of the proposed project land uses.

Table 5 summarizes the projected AM peak hour, PM peak hour and daily trip generation of the proposed project. The proposed project is projected to generate 667 net total AM peak hour trips, 816 net total PM peak hour trips and 10,694 net total daily trips after City of Victorville approved pass-by reductions. Pass-by reduction percentages for corresponding AM, PM, and Daily periods are also shown in **Table 5**.

4.3 PROJECT TRIP DISTRIBUTION

Projecting trip distribution involves the process of identifying probable destinations and traffic routes that will be utilized by the proposed project's traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the probable routes onto which project traffic would distribute. The projected trip distribution for the proposed project is based on anticipated travel patterns to and from the project site.

Exhibit 6 shows the projected trip distribution of proposed project trips.

4.4 MODAL SPLIT

The traffic reducing potential of public transit, walking and bicycling have not been considered in this analysis since transit facilities in the study area are limited.

Table 5: Proposed Project AM/PM Peak Hour Trip Generation

Proposed Land Use ¹	Qty	Unit ²	Daily Trips (ADTs)		AM Peak Hour					PM Peak Hour					Pass-By % Reduction		
			Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume			AM	PM	Daily
							In	Out	Total			In	Out	Total			
Parcel A																	
Gas Station w/ Convenience Market (945)	16.00	VFP	205.36	3,286	12.47	51:49	102	98	200	13.99	51:49	114	110	224	50%	45%	45%
Parcel B																	
Fast Food with Drive Thru (934)	4.40	TSF	470.95	2,072	40.19	51:49	90	87	177	32.67	52:48	75	69	144	35%	35%	35%
Parcel C1																	
Shopping Center (820)	6.10	TSF	37.75	230	0.94	62:38	4	2	6	3.81	48:52	11	12	23	10%	25%	10%
Fast Food with Drive Thru (934)	6.60	TSF	470.95	3,108	40.19	51:49	135	130	265	32.67	52:48	112	104	216	35%	35%	35%
Parcel C2																	
Shopping Center (820)	55.99	TSF	37.75	2,114	0.94	62:38	33	20	53	3.81	48:52	102	111	213	10%	25%	10%
Parcel C3																	
Medical Offices (720)	10.08	TSF	34.8	351	2.78	78:22	22	6	28	3.46	28:72	10	25	35	--	--	--
Parcel D																	
Multi-Family Residential (220)	376	DU	7.32	2,752	0.46	23:77	40	133	173	0.56	63:37	133	78	211	--	--	--
Parcel E																	
General Office Building (710)	10.00	TSF	9.74	97	1.16	86:14	10	2	12	1.15	16:84	2	10	12	--	--	--
Mini-Warehouse (151)	139.09	TSF	1.51	210	0.10	60:40	8	6	14	0.17	47:53	11	13	24	--	--	--
Totals																	
Total				14,220			444	484	928			571	531	1,102	--	--	--
Pass-By				-3,526			-134	-127	-261			-145	-141	-286			
Net Total				10,694			311	357	667			425	391	816			

1: Rates from ITE Trip Generation (10th Edition, 2017)

2: TSF = Thousand Square Feet; DU = Dwelling Units, VFP = Vehicle Fueling Positions

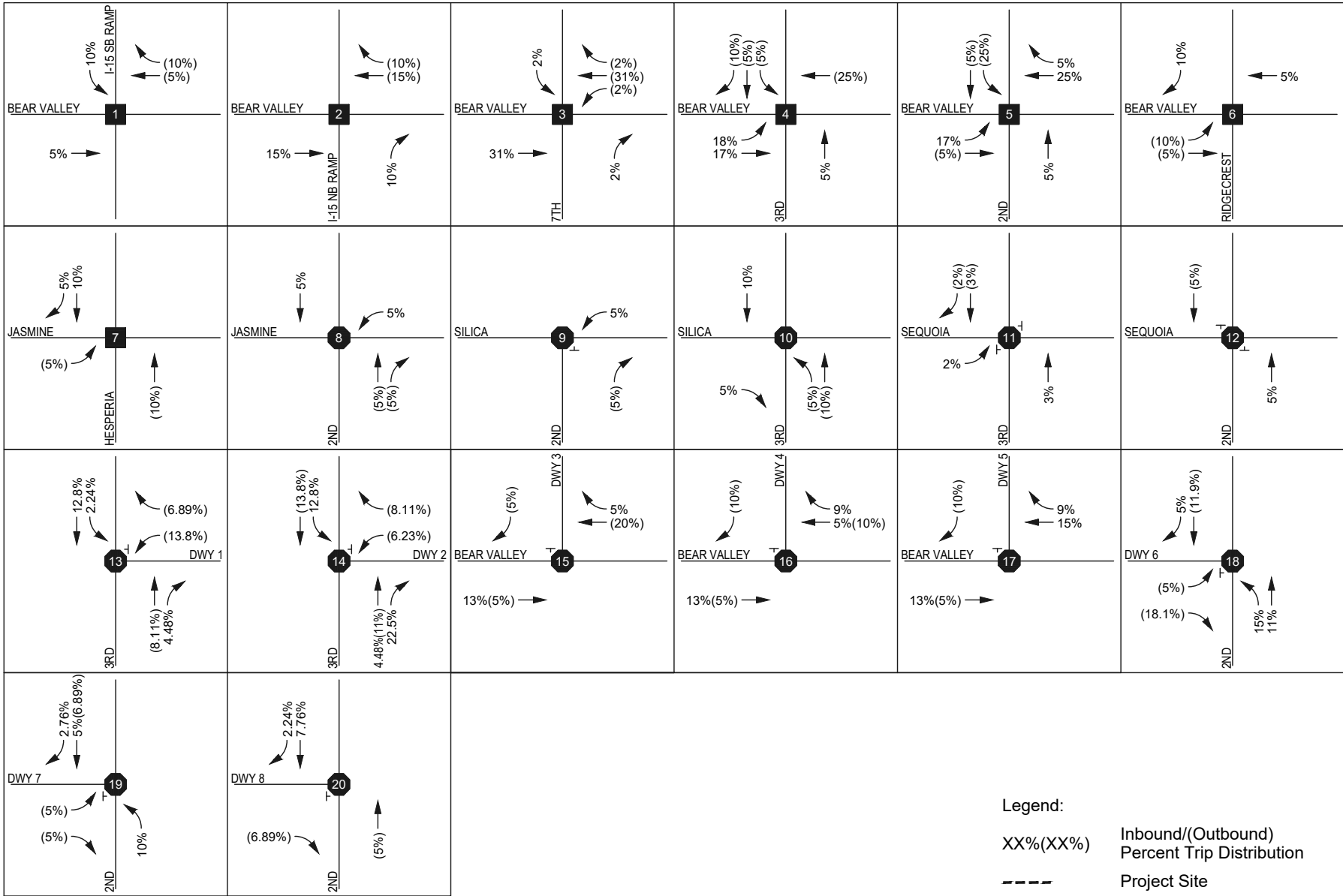


Exhibit 6: Trip Distribution of Proposed Project Trips at Study Intersections

LVA-19-002 Bear Valley Marketplace Traffic Impact Analysis



Not to Scale

4.5 CUMULATIVE PROJECTS TRAFFIC

Opening Year (2023) traffic volumes were developed using an annual growth rate in addition to any approved projects within the surrounding area of the project site. Coordination with the City was conducted to determine approved projects within the surrounding area. **Exhibit 7** shows the location of nearby cumulative developments. A summary of cumulative projects land uses is show in **Table 6**.

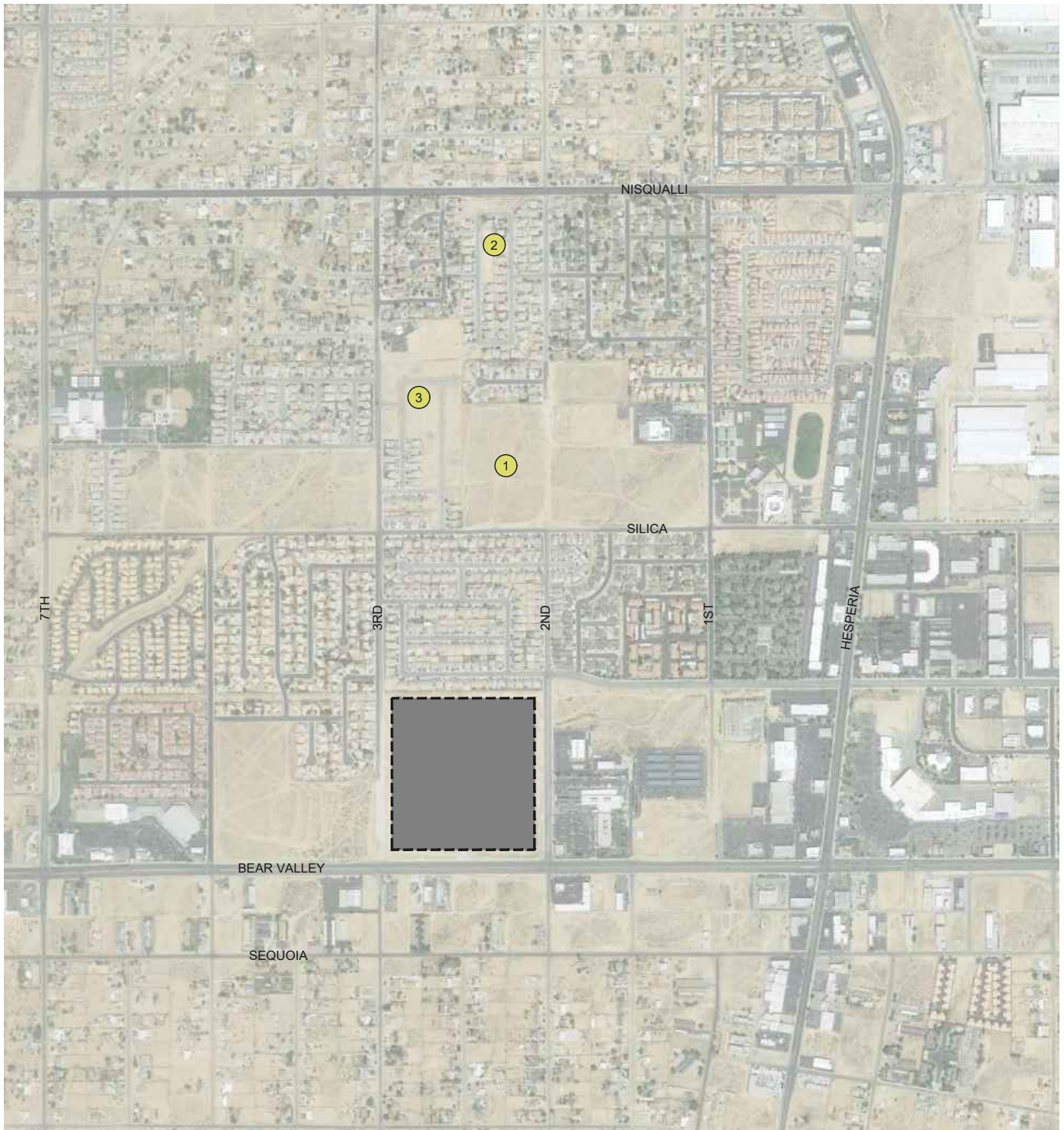
Future Year (2033) traffic volumes were developed based on the San Bernardino County Transportation Analysis Model (SBTAM). The SBTAM includes approved projects when developing future forecasts. As such, it is assumed a growth rate derived from the SBTAM accounts for cumulative projects within the surrounding area of the project site.

Table 6: Cumulative Projects List

Project		Land Use	Qty	Units	AM Peak Hour			AM Peak Hour			Dail Y
					In	Out	Total	In	Out	Total	
1	NW Corner 2nd Ave/Silica Dr	Single-Family	34.00	DU	6	19	25	21	12	34	321
2	Tract 17047	Single-Family	14.00	DU	3	8	10	9	5	14	132
3	Tract 17241	Single-Family	52.00	DU	10	29	38	32	19	51	491
Total					19	56	73	62	36	99	944

¹ DU = Dwelling Units; TSF = Thousand Square Feet; RM = Rooms

² Source: Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017 (unless otherwise noted)



Legend:



-  Approximate Cumulative Project Locations
-  Project Site



Exhibit 7: Cumulative Project Map

LVA-19-002 Bear Valley Marketplace Traffic Impact Analysis

TJW ENGINEERING, INC.



Not to Scale

5.0 EXISTING PLUS PROJECT CONDITIONS (EP)

Existing plus project (EP) conditions analysis is intended to identify the project-related impacts on the existing circulation system by comparing *EP* conditions to *existing* conditions. *EP* analysis is intended to identify direct traffic impacts associated with the development of the proposed project.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *existing plus project* scenario are consistent with those previously shown in **Exhibit 3**, with the exception of project driveways and other facilities assumed to be constructed by the proposed project to provide site access. Improvements include the north end of the intersection of Bear Valley Road/3rd Avenue and signalization of the intersection.

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUMES

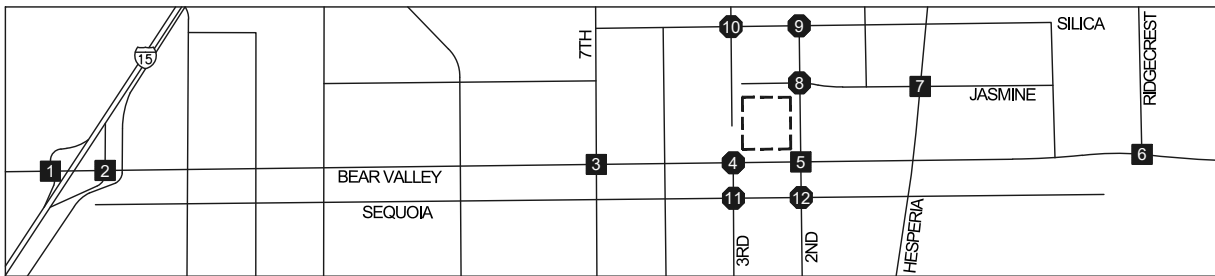
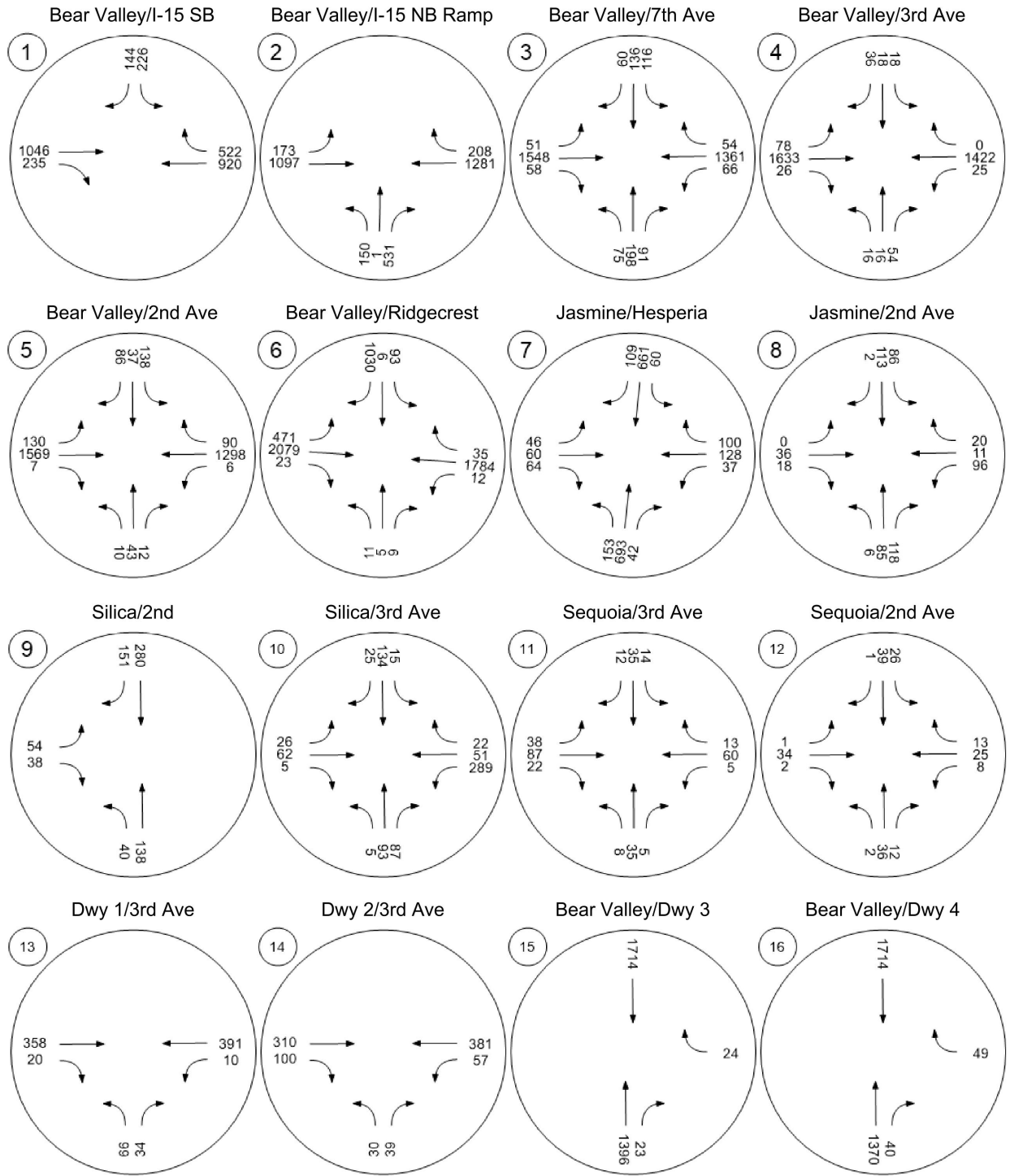
Existing plus project volumes include existing traffic plus the addition of the traffic projected to be generated by the proposed project.

EP Volumes = Existing (2019) Counts + Project Traffic

Exhibit 8 and **Exhibit 9** shows *existing plus project* AM and PM peak hour volumes at the study intersections.

5.3 EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

Existing plus project conditions AM and PM peak hour intersection analysis is shown in **Table 7**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 3**. HCM analysis sheets are provided in **Appendix C**.

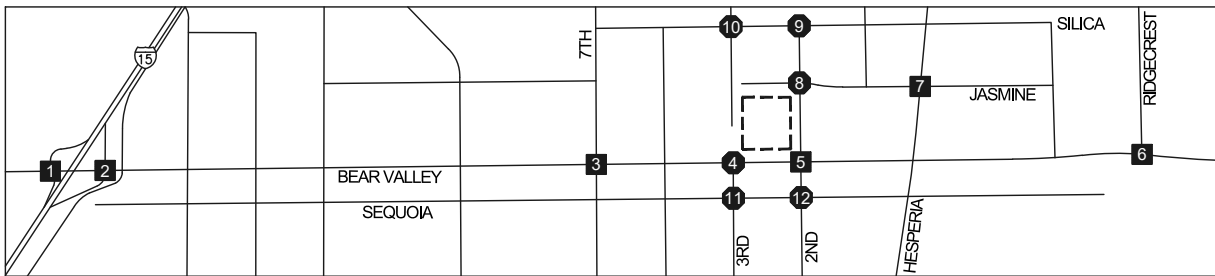
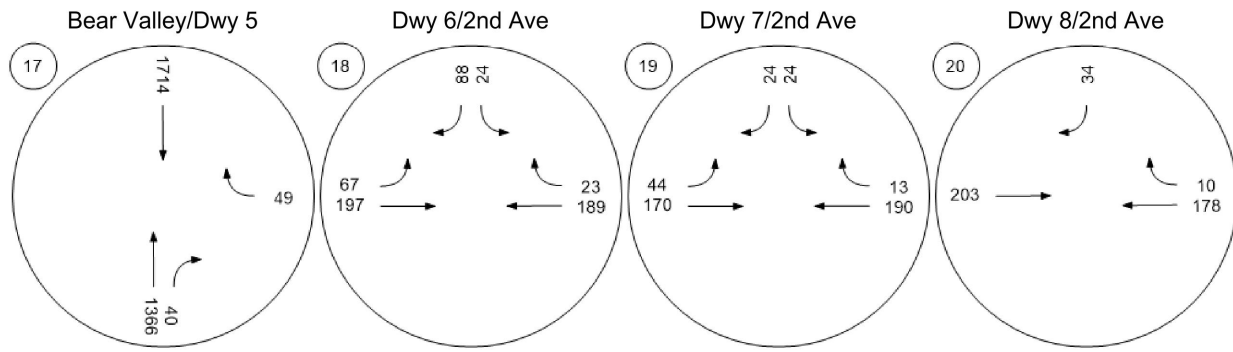


Legend:
 XX Peak Hour Volumes
 --- Project Site



Exhibit 8: Existing Plus Project AM Peak Hour Volumes





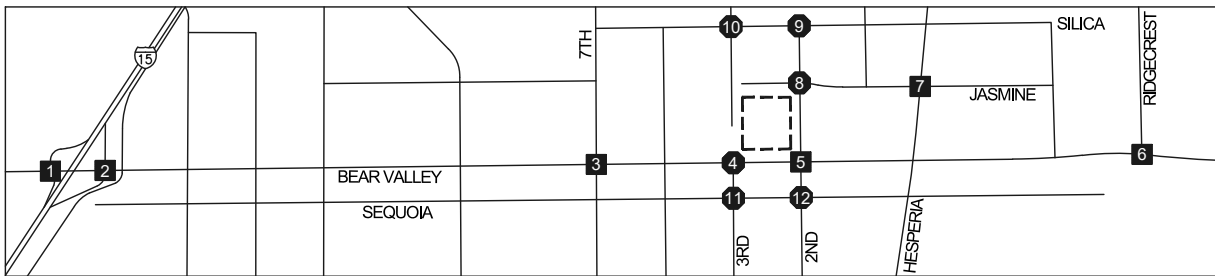
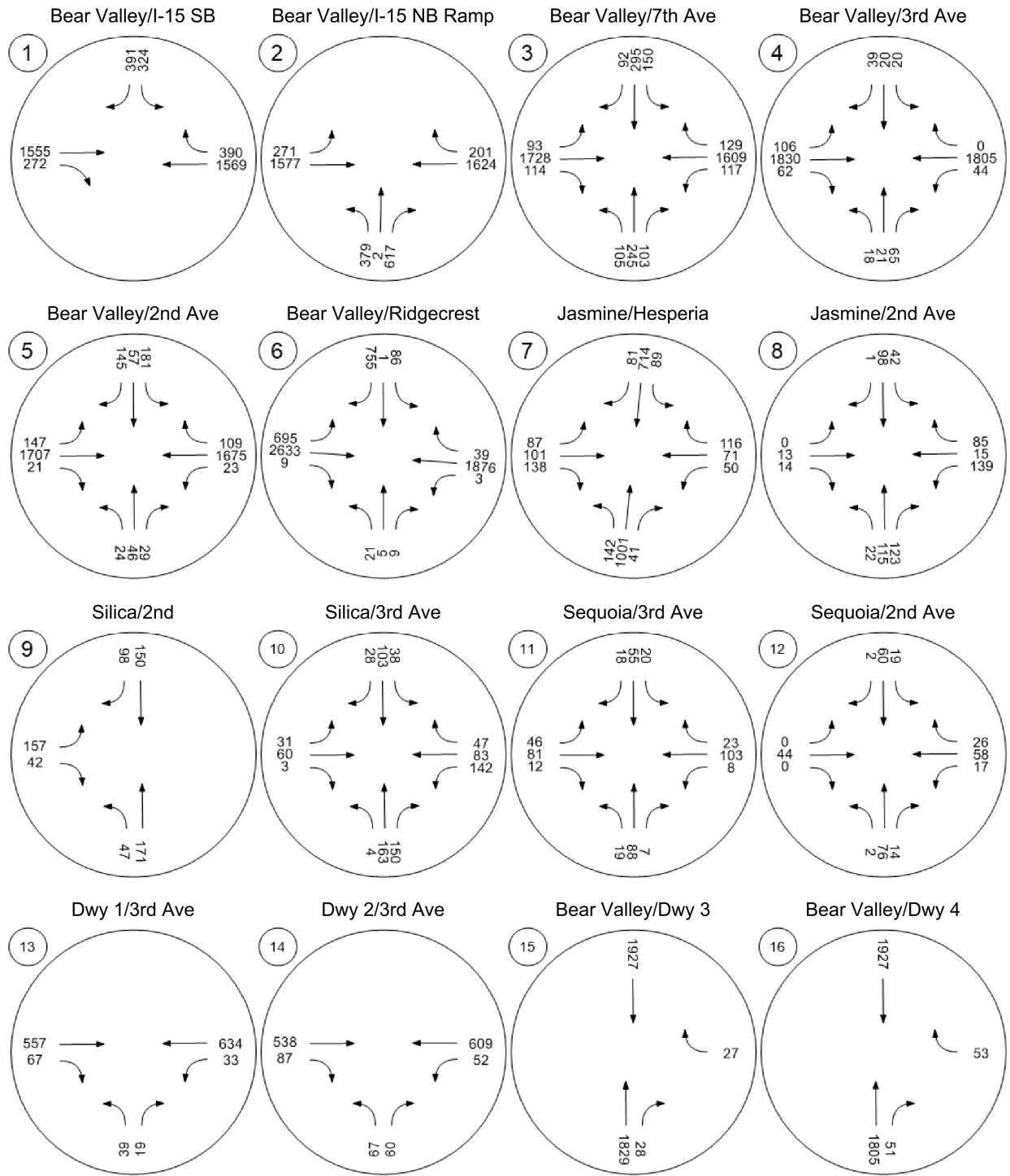
Legend:

- XX Peak Hour Volumes
- Project Site



Exhibit 8 (Continued): Existing Plus Project AM Peak Hour Volumes



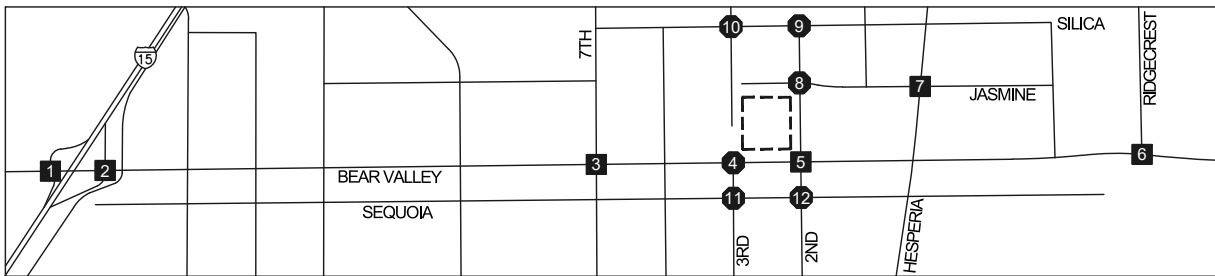
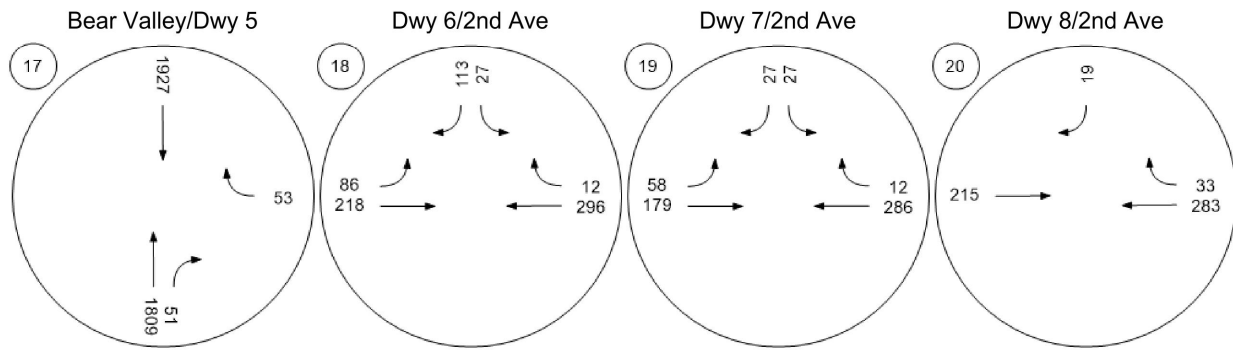


Legend:
 XX Peak Hour Volumes
 --- Project Site



Exhibit 9: Existing Plus Project PM Peak Hour Volumes





Legend:

- XX Peak Hour Volumes
- Project Site



Exhibit 9 (Continued): Existing Plus Project PM Peak Hour Volumes



Table 7: Intersection Analysis – Existing Plus Project Conditions

Intersection			Control Type	Peak Hour	Existing Conditions		EP Conditions		Change	Impact?
					Delay ¹	LOS	Delay ¹	LOS		
1	I-15 SB	Bear Valley	Signal	AM	7.5	A	8.0	A	0.5	No
				PM	11.6	B	11.9	B	0.3	No
2	I-15 NB	Bear Valley	Signal	AM	38.9	D	41.3	D	2.4	No
				PM	76.4	E	83.1	E	6.7	Yes
3	7th Ave	Bear Valley	Signal	AM	25.6	C	26.6	C	1.0	No
				PM	33.0	C	38.3	D	5.3	No
4	3rd Ave	Bear Valley	Signal	AM	65.1	F	21.3	C	-43.8	No
				PM	166.1	F	20.5	C	-145.6	No
5	2nd Ave	Bear Valley	Signal	AM	14.4	B	19.9	B	5.5	No
				PM	19.6	B	27.3	C	7.7	No
6	Ridgecrest	Bear Valley	Signal	AM	108.6	F	113.4	F	4.7	Yes
				PM	100.4	F	113.2	F	12.8	Yes
7	Jasmine	Hesperia	Signal	AM	23.4	C	23.9	C	0.5	No
				PM	25.9	C	26.4	C	0.5	No
8	Jasmine	2nd Ave	AWSC	AM	9.5	A	10.0	A	0.5	No
				PM	9.6	A	10.2	B	0.6	No
9	Silica	2nd Ave	AWSC	AM	11.3	B	11.5	B	0.3	No
				PM	10.8	B	11.3	B	0.5	No
10	Silica	3rd Ave	AWSC	AM	13.0	B	15.2	C	2.2	No
				PM	12.1	B	15.6	C	3.5	No
11	Sequoia	3rd Ave	TWSC	AM	11.1	B	11.4	B	0.3	No
				PM	12.6	B	13.1	B	0.5	No
12	Sequoia	2nd Ave	TWSC	AM	10.1	B	10.3	B	0.2	No
				PM	10.5	B	10.7	B	0.2	No
13	3rd Ave	Driveway 1	OWSC	AM	--	--	13.7	B	--	--
				PM	--	--	20.2	C	--	--
14	3rd Ave	Driveway 2	OWSC	AM	--	--	12.9	B	--	--
				PM	--	--	23.1	C	--	--
15	Driveway 3	Bear Valley	OWSC	AM	--	--	17.1	C	--	--
				PM	--	--	22.8	C	--	--
16	Driveway 4	Bear Valley	OWSC	AM	--	--	17.9	C	--	--
				PM	--	--	24.9	C	--	--
17	Driveway 5	Bear Valley	OWSC	AM	--	--	17.9	C	--	--
				PM	--	--	25.0	D	--	--
18	2nd Ave	Driveway 6	OWSC	AM	--	--	10.3	B	--	--
				PM	--	--	11.4	B	--	--
19	2nd Ave	Driveway 7	OWSC	AM	--	--	10.4	B	--	--
				PM	--	--	11.5	B	--	--

Note: AWSC = All- Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Intersection			Control Type	Peak Hour	Existing Conditions		EP Conditions		Change	Impact?
					Delay ¹	LOS	Delay ¹	LOS		
20	2nd Ave	Driveway 8	OWSC	AM	--	--	9.0	A	--	--
				PM	--	--	9.3	A	--	--

Note: AWSC = All-Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 7**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *existing plus project* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS E PM Peak Hour); and
- #6 - Ridgecrest Rd / Bear Valley Rd (LOS F AM/PM Peak Hour).

5.4 EXISTING PLUS PROJECT CONDITIONS SIGNAL WARRANT ANALYSIS

Traffic signal warrants for *existing plus project* conditions have been prepared based on *EP* peak-hour and four-hour intersection volumes at the project site access locations.

Table 8 summarizes the results of the signal warrant analysis. Detailed warrant analysis sheets are contained in **Appendix D**.

Table 8: Signal Warrant Analysis – EP Conditions

Intersection			Four-Hour Signal Warrant Met?	Peak Hour Signal Warrant Met?	
				AM Peak Hour	PM Peak Hour
4	3rd Ave	Bear Valley	Yes	Yes	Yes
8	Jasmine	2nd Ave	No	No	No
9	Silica	2nd Ave	No	No	No
10	Silica	3rd Ave	No	No	No
11	Sequoia	3rd Ave	No	No	No
12	Sequoia	2nd Ave	No	No	No

Peak-hour and four-hour signal warrants are not met at any of the unsignalized study intersections for *EP* conditions.

5.5 EXISTING PLUS PROJECT RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *existing plus project* conditions.

EP Recommended Improvement (EP-1): I-15 NB Ramp/Bear Valley Rd - Improve intersection to accommodate a right turn lane for westbound Bear Valley Street.

EP Recommended Improvement (EP-2): 3rd Ave/Bear Valley Rd - Signalize intersection. This improvement will be a part of project related improvements, which include the addition of the north leg of the intersection.

EP Recommended Improvement (EP-3): Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

Table 9 shows *existing plus project* level of service at the intersection with the recommended improvements.

Table 9: Intersection Analysis – EP Conditions with Recommended Improvements

Intersection			Control Type	Peak Hour	Existing Conditions		EP Conditions		EP With Recommended Improvements	
					Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
2	I-15 NB	Bear Valley	Signal	AM	33.6	C	41.3	D	34.6	C
				PM	67.4	E	83.1	E	72.3	E
4	3rd Ave	Bear Valley	Signal	AM	65.1	F	21.3	C	22.7	C
				PM	166.1	F	20.5	C	19.9	B
6	Ridgecrest	Bear Valley	Signal	AM	96.7	F	113.4	F	104.5	F
				PM	83.2	F	113.2	F	80.5	F

Note: AWSC = All-Way Stop-Control, TWSC = Two-Way Stop Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in

Table 9, with the recommended improvements, the intersection is projected to operate at an acceptable/improved LOS for *existing plus project* conditions.

6.0 PROJECT OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS (OYNP)

Project opening year without project (OYNP) conditions analysis is intended to identify baseline conditions in the near-term without the proposed project.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *project opening year without project* scenario are consistent with those previously shown in **Exhibit 3**.

6.2 PROJECT OPENING YEAR WITHOUT PROJECT TRAFFIC VOLUMES

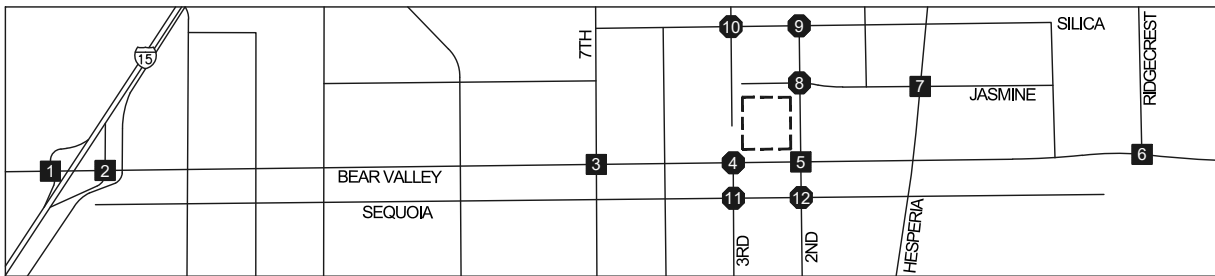
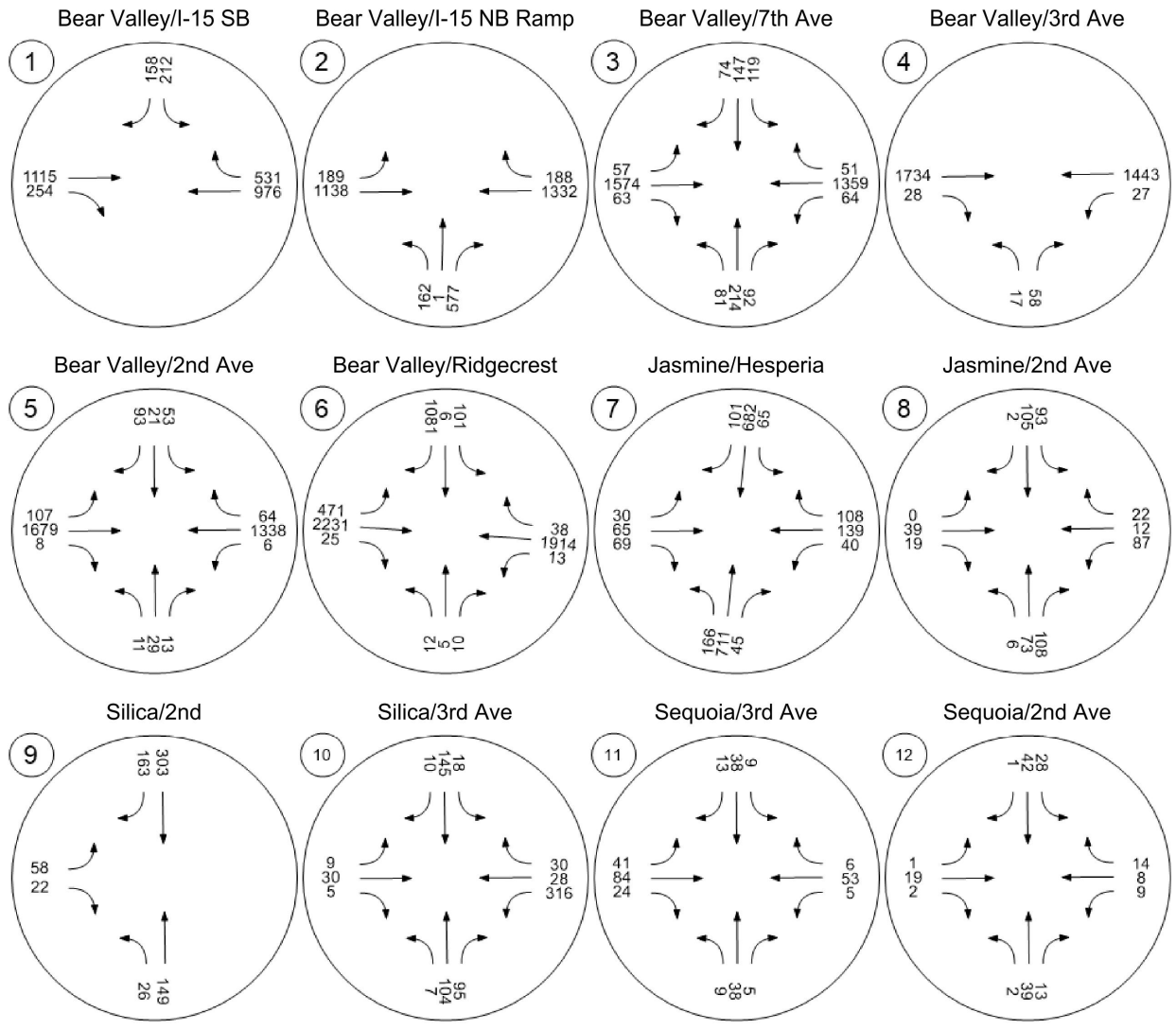
Project opening year without project volumes include background traffic. The proposed project is anticipated to be built in two phases with the entire project expected to be completed and generating traffic in 2023. *Project opening year without project* volumes include a growth rate of 2% per year for four years, applied to existing volumes.

OYNP Volumes = (Existing (2019) Counts * 1.02⁴) + Cumulative Project Volume

Exhibit 10 and **Exhibit 11** shows *project opening year without project* AM and PM peak hour volumes at the study intersections.

6.3 PROJECT OPENING YEAR WITHOUT PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

Project opening year without project conditions AM and PM peak hour intersection analysis is shown in **Table 10**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 3**. HCM analysis sheets are provided in **Appendix C**.

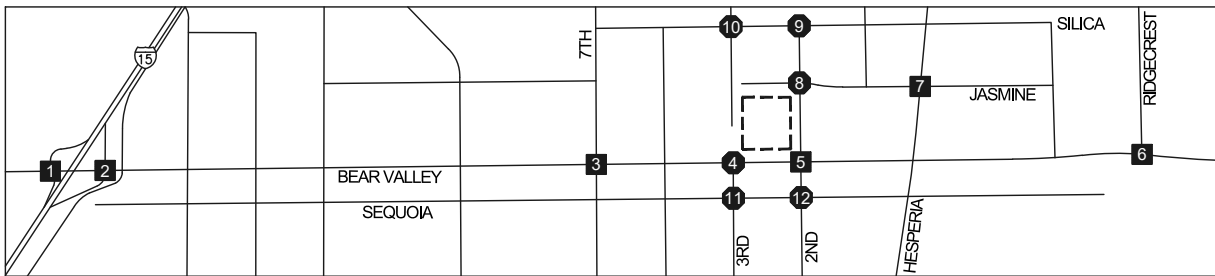
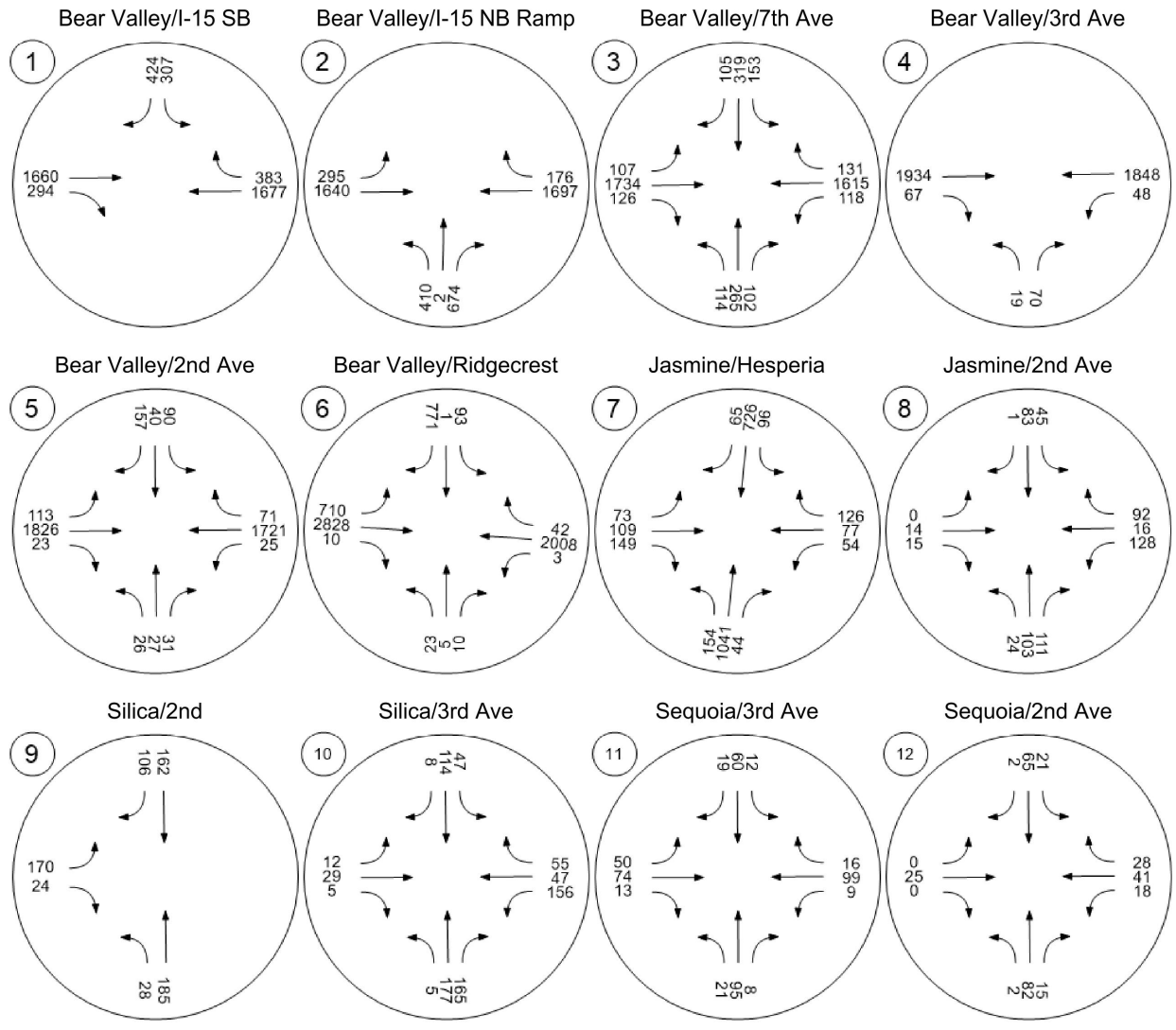


Legend:
 XX Peak Hour Volumes
 - - - - Project Site



Exhibit 10: OYNP (2023) Project AM Peak Hour Volumes





Legend:
 XX Peak Hour Volumes
 - - - - Project Site



Exhibit 11: OYNP (2023) PM Peak Hour Volumes



Table 10: Intersection Analysis – OYNP Conditions

Intersection			Control Type	Peak Hour	OYNP Conditions	
					Delay ¹	LOS
1	I-15 SB	Bear Valley	Signal	AM	7.8	A
				PM	12.5	B
2	I-15 NB	Bear Valley	Signal	AM	49.0	D
				PM	99.8	F
3	7th Ave	Bear Valley	Signal	AM	27.7	C
				PM	41.4	D
4	3rd Ave	Bear Valley	OWSC	AM	110.2	F
				PM	374.4	F
5	2nd Ave	Bear Valley	Signal	AM	15.5	B
				PM	21.6	C
6	Ridgecrest	Bear Valley	Signal	AM	133.0	F
				PM	138.4	F
7	Jasmine	Hesperia	Signal	AM	24.1	C
				PM	27.2	C
8	Jasmine	2nd Ave	AWSC	AM	9.8	A
				PM	9.9	A
9	Silica	2nd Ave	AWSC	AM	12.2	B
				PM	11.5	B
10	Silica	3rd Ave	AWSC	AM	15.5	C
				PM	13.8	B
11	Sequoia	3rd Ave	TWSC	AM	11.4	B
				PM	13.3	B
12	Sequoia	2nd Ave	TWSC	AM	10.2	B
				PM	10.6	B

Note: TWSC = Two-Way Stop-Control, OWSC = One-Way Stop-Control; Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized.

As shown in **Table 10**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *project opening year without project* conditions with the exception of the following intersections:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS F PM Peak Hour);
- #4 - 3rd Ave/Bear Valley Rd (LOS F AM/PM Peak Hour); and
- #5 - 2nd Ave/Bear Valley Rd (LOS F PM Peak Hour).

7.0 PROJECT OPENING YEAR (2023) WITH PROJECT CONDITIONS (OYWP)

Project opening year with project (OYWP) conditions analysis is intended to identify the project-related cumulative impacts on both the existing and planned near-term circulation system.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *project opening year with project* scenario are consistent with those previously shown in **Exhibit 3**, with the exception of project driveways and other facilities assumed to be constructed by the proposed project to provide site access. Improvements include the north end of the intersection of Bear Valley Road/3rd Avenue and signalization of the intersection.

7.2 PROJECT OPENING YEAR WITH PROJECT TRAFFIC VOLUMES

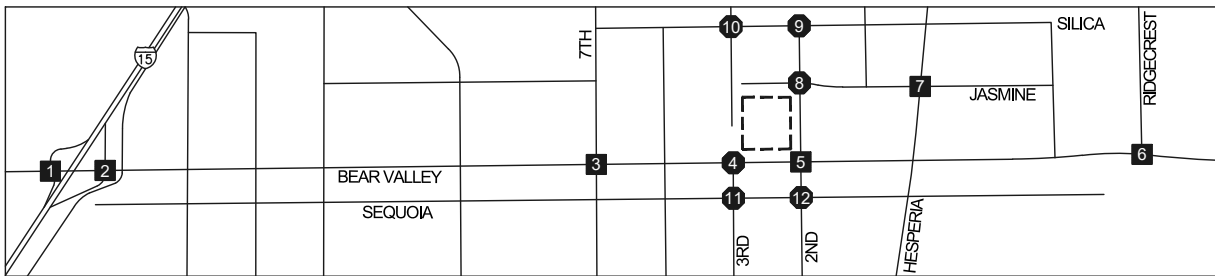
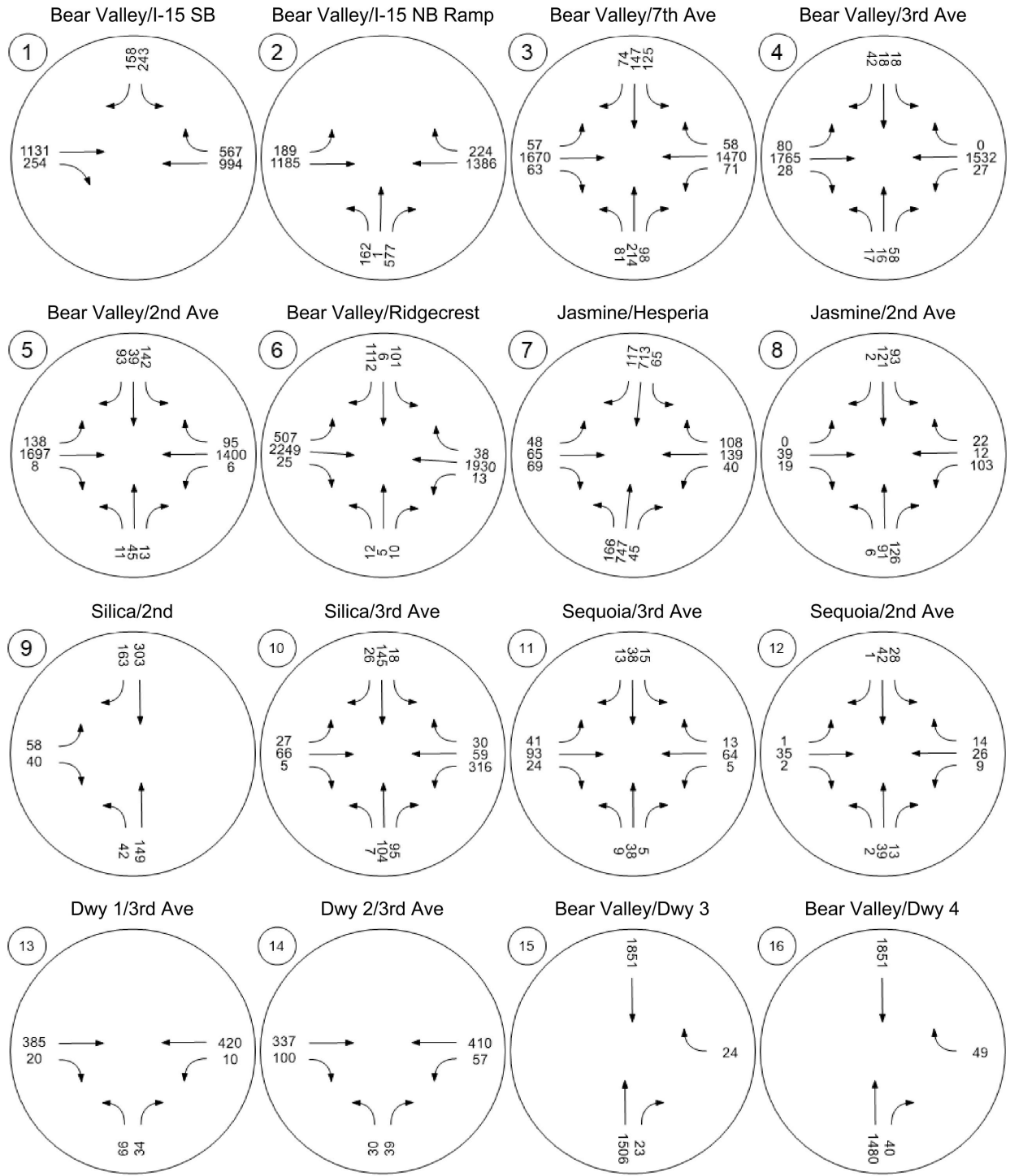
Project opening year with project volumes include background traffic plus the addition of the traffic projected to be generated by the proposed project. The proposed project is anticipated to be built in two phases with the entire project expected to be completed and generating traffic in 2023, therefore *project opening year with project* volumes include a growth rate of 2% per year for four years, applied to existing volumes.

$OYWP \text{ Volumes} = (\text{Existing (2019) Counts} * 1.02^4) + \text{Cumulative Project Volume} + \text{Project Volume}$

Exhibit 12 and **Exhibit 13** shows OYWP AM and PM peak hour volumes at the study intersections.

7.3 PROJECT OPENING YEAR WITH PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Project opening year with project conditions AM and PM peak hour intersection analysis is shown in **Table 11**. HCM analysis sheets are provided in **Appendix C**.

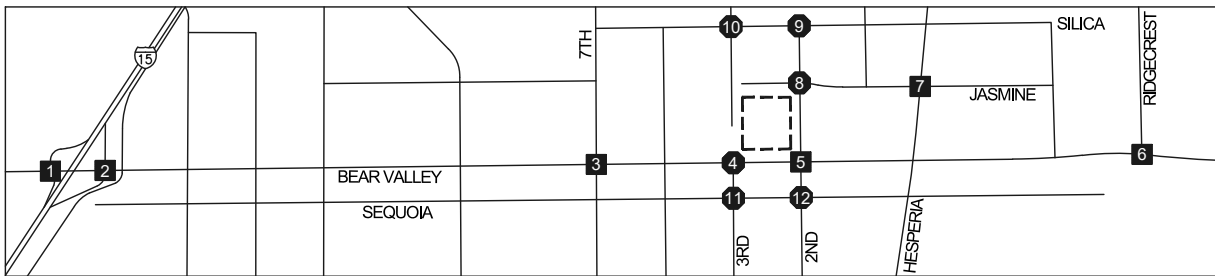
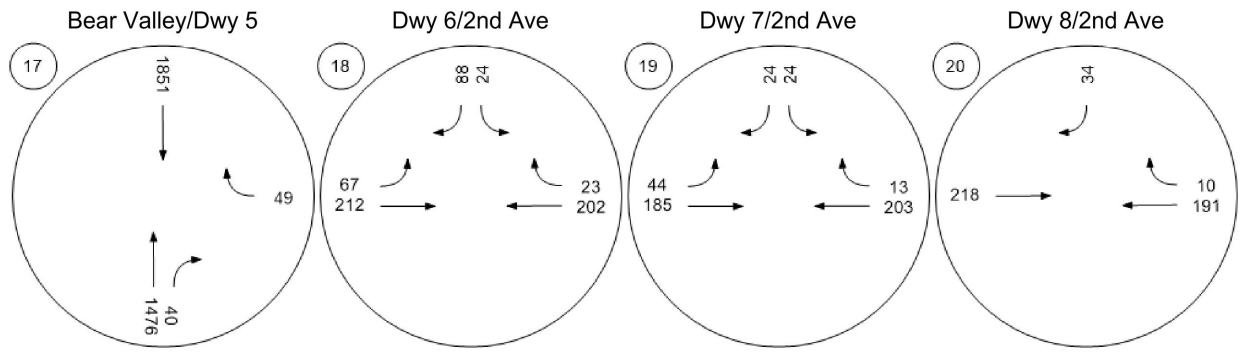


Legend:
 XX Peak Hour Volumes
 - - - - Project Site



Exhibit 12: OYWP (2023) AM Peak Hour Volumes



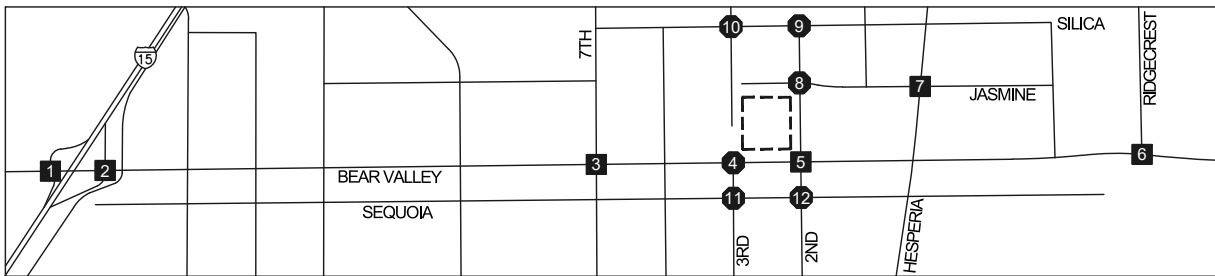
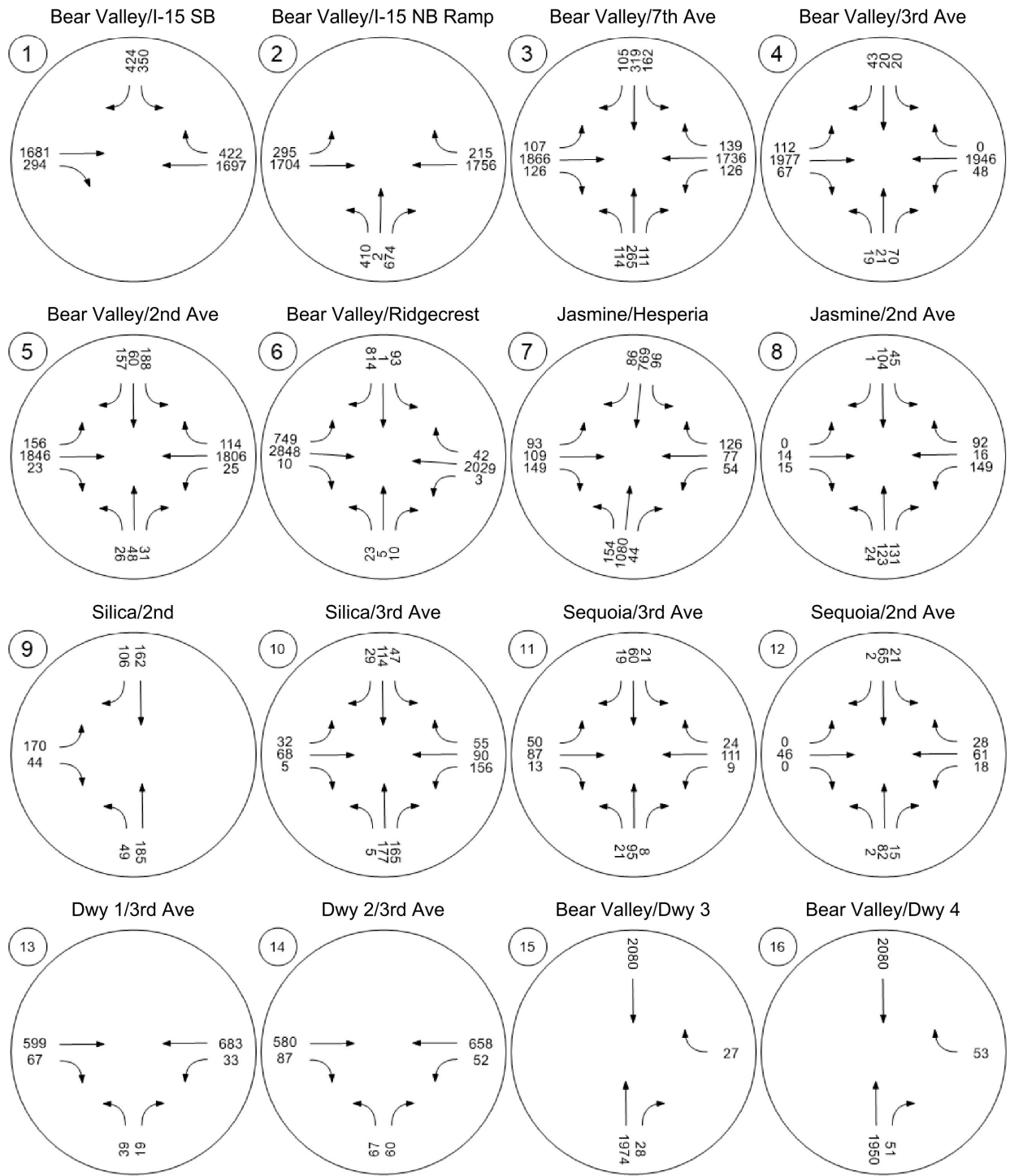


Legend:
 XX Peak Hour Volumes
 - - - - Project Site



Exhibit 12 (Continued): OYWP (2023) AM Peak Hour Volumes





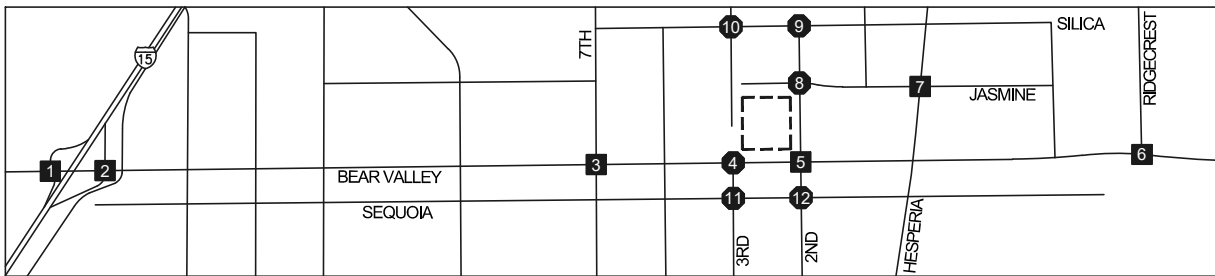
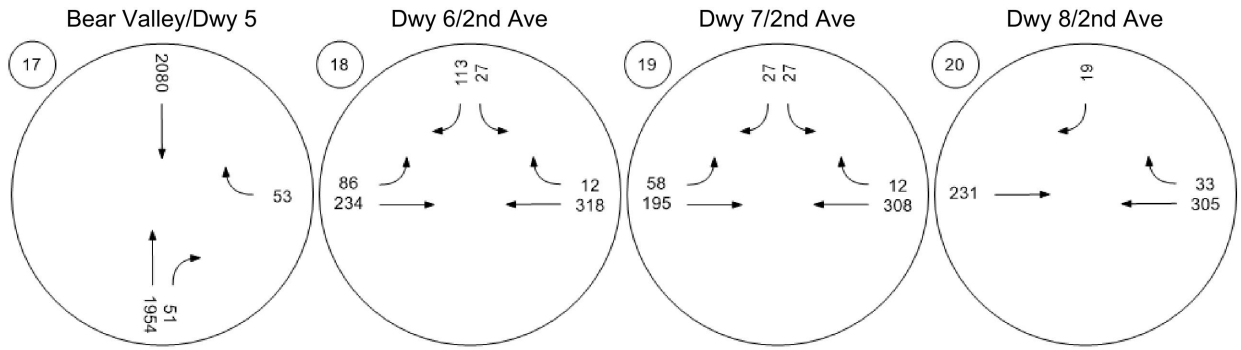
Legend:

- XX Peak Hour Volumes
- Project Site



Exhibit 13: OYWP (2023) PM Peak Hour Volumes





Legend:

- XX Peak Hour Volumes
- Project Site



Exhibit 13 (Continued): OYWP (2023) PM Peak Hour Volumes



Table 11: Intersection Analysis – OYWP Conditions

Intersection			Control Type	Peak Hour	OYNP Conditions		OYWP Conditions		Change	Impact?
					Delay ¹	LOS	Delay ¹	LOS		
1	I-15 SB	Bear Valley	Signal	AM	7.8	A	8.3	A	0.5	No
				PM	12.5	B	12.8	B	0.3	No
2	I-15 NB	Bear Valley	Signal	AM	49.0	D	52.7	D	3.7	No
				PM	99.8	F	105.8	F	6.0	Yes
3	7th Ave	Bear Valley	Signal	AM	27.7	C	30.0	C	2.3	No
				PM	41.4	D	47.3	D	5.9	No
4	3rd Ave	Bear Valley	Signal	AM	110.2	F	18.6	B	-91.6	No
				PM	374.4	F	18.3	B	-356.1	No
5	2nd Ave	Bear Valley	Signal	AM	15.5	B	21.2	C	5.7	No
				PM	21.6	C	30.3	C	8.6	No
6	Ridgecrest	Bear Valley	Signal	AM	133.0	F	138.3	F	5.3	Yes
				PM	138.4	F	153.6	F	15.2	Yes
7	Jasmine	Hesperia	Signal	AM	24.1	C	24.6	C	0.6	No
				PM	27.2	C	28.0	C	0.8	No
8	Jasmine	2nd Ave	AWSC	AM	9.8	A	10.3	B	0.5	No
				PM	9.9	A	10.5	B	0.7	No
9	Silica	2nd Ave	AWSC	AM	12.2	B	12.6	B	0.3	No
				PM	11.5	B	12.2	B	0.6	No
10	Silica	3rd Ave	AWSC	AM	15.5	C	19.4	C	3.9	No
				PM	13.8	B	17.4	C	3.5	No
11	Sequoia	3rd Ave	TWSC	AM	11.4	B	11.6	B	0.3	No
				PM	13.3	B	13.8	B	0.5	No
12	Sequoia	2nd Ave	TWSC	AM	10.2	B	10.4	B	0.2	No
				PM	10.6	B	10.8	B	0.2	No
13	3rd Ave	Driveway 1	OWSC	AM	--	--	14.3	B	--	--
				PM	--	--	22.1	C	--	--
14	3rd Ave	Driveway 2	OWSC	AM	--	--	13.4	B	--	--
				PM	--	--	25.9	D	--	--
15	Driveway 3	Bear Valley	OWSC	AM	--	--	18.3	C	--	--
				PM	--	--	25.3	D	--	--
16	Driveway 4	Bear Valley	OWSC	AM	--	--	19.3	C	--	--
				PM	--	--	28.1	D	--	--
17	Driveway 5	Bear Valley	OWSC	AM	--	--	19.3	C	--	--
				PM	--	--	28.2	D	--	--
18	2nd Ave	Driveway 6	OWSC	AM	--	--	10.4	B	--	--
				PM	--	--	11.6	B	--	--
19	2nd Ave	Driveway 7	OWSC	AM	--	--	10.6	B	--	--
				PM	--	--	11.7	B	--	--

Note: AWSC = All-Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Intersection			Control Type	Peak Hour	OYNP Conditions		OYWP Conditions		Change	Impact?
					Delay ¹	LOS	Delay ¹	LOS		
20	2nd Ave	Driveway 8	OWSC	AM	--	--	9.0	A	--	--
				PM	--	--	9.4	A	--	--

Note: AWSC = All-Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 11**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *project opening year with project conditions* with the exception of the following intersection:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS F PM Peak Hour); and
- #6 - Ridgecrest Rd / Bear Valley Rd (LOS F AM/PM Peak Hour).

7.4 PROJECT OPENING YEAR WITH PROJECT CONDITIONS SIGNAL WARRANT ANALYSIS

Traffic signal warrants for *project opening year with project conditions* have been prepared based on *project opening year with project peak-hour* and four-hour intersection volumes at the project site access locations.

Table 12 summarizes the results of the signal warrant analysis. Detailed warrant analysis sheets are contained in **Appendix D**.

Table 12: Signal Warrant Analysis – OYWP Conditions

Intersection			Four-Hour Signal Warrant Met?	Peak Hour Signal Warrant Met?	
				AM Peak Hour	PM Peak Hour
4	3rd Ave	Bear Valley	Yes	Yes	Yes
8	Jasmine	2nd Ave	No	No	No
9	Silica	2nd Ave	No	No	No
10	Silica	3rd Ave	No	No	No
11	Sequoia	3rd Ave	No	No	No
12	Sequoia	2nd Ave	No	No	No

Peak-hour and four-hour signal warrants are not met at any of the unsignalized study intersections for *project opening year with project conditions*.

7.5 PROJECT OPENING YEAR WITH PROJECT RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *project opening year with project conditions*.

OYWP Recommended Improvement (OYWP-1): I-15 NB Ramp/Bear Valley Rd - Improve intersection to accommodate a right turn lane for westbound Bear Valley Street.

OYWP Recommended Improvement (OYWP-2): 3rd Ave/Bear Valley Rd - Signalize intersection. This improvement will be a part of project related improvements, which include the addition of the north leg of the intersection.

OYWP Recommended Improvement (OYWP-3): Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

Table 13 shows *project opening year with project* level of service at the intersection with the recommended improvements.

Table 13: Intersection Analysis – OYWP Conditions with Recommended Improvements

Intersection			Control Type	Peak Hour	OYNP Conditions		OYWP Conditions		OYWP with Recommended Improvements	
					Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
2	I-15 NB	Bear Valley	Signal	AM	49.0	D	52.7	D	45.8	D
				PM	99.8	F	105.8	F	93.8	F
4	3rd Ave	Bear Valley	Signal	AM	110.2	F	18.6	B	18.5	B
				PM	374.4	F	18.3	B	16.1	B
6	Ridgecrest	Bear Valley	Signal	AM	133.0	F	138.3	F	126.4	F
				PM	138.4	F	153.6	F	117.2	F

Note: AWSC = All-Way Stop-Control, TWSC = Two-Way Stop Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 13**, with the recommended improvements, the intersection is projected to operate at an acceptable/improved LOS for OYWP conditions.

8.0 FUTURE YEAR (2033) WITHOUT PROJECT CONDITIONS (2033 NP)

Future year without project (2033NP) conditions analysis is intended to determine any long-range cumulative project impacts on the planned circulation system.

8.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *future year without project* conditions are consistent with those previously shown in **Exhibit 3**, with the following exception:

- Intersection of 3rd Ave and Bear Valley Road fully built out to include north leg of intersection. Intersection assumed to be fully signalized.

8.2 FUTURE YEAR (2033) WITHOUT PROJECT TRAFFIC VOLUMES

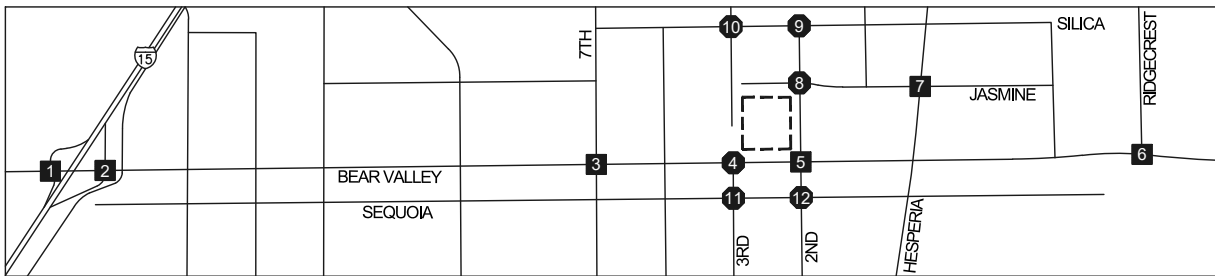
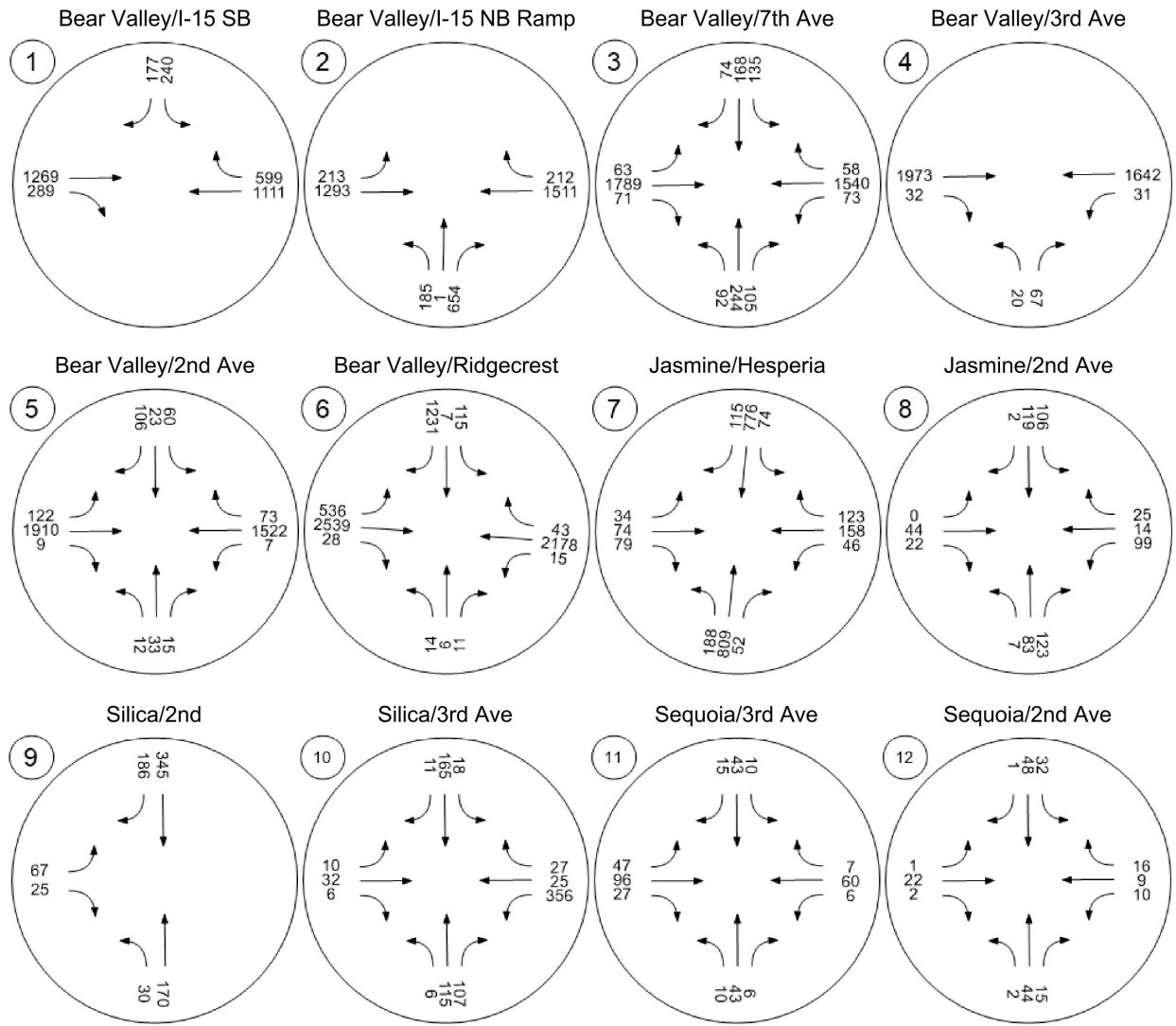
Future year without project volumes include background traffic anticipated for year 2033. A growth rate of 1.5% per year from existing year (2019) to future year (2033) was used to determine *future year without project* volumes. This growth rate accounts for cumulative project traffic and was determined based on the San Bernardino Transportation Analysis Model (SBTAM) Year 2012 and Year 2040 traffic models.

$2033NP \text{ Volumes} = (\text{Existing (2019) Counts} * 1.015^{14})$

Exhibit 14 and **Exhibit 15** shows *future year without project* AM and PM peak hour volumes at the study intersections.

8.3 FUTURE YEAR WITHOUT PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Future year without project conditions AM and PM peak hour intersection analysis is shown in **Table 14**. HCM analysis sheets are provided in **Appendix C**.

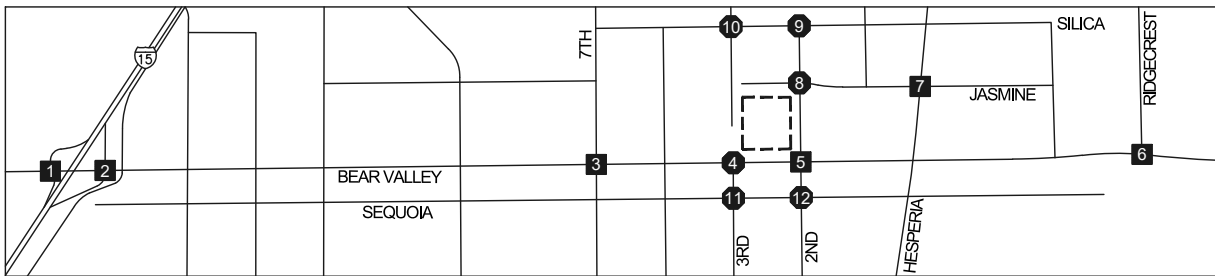
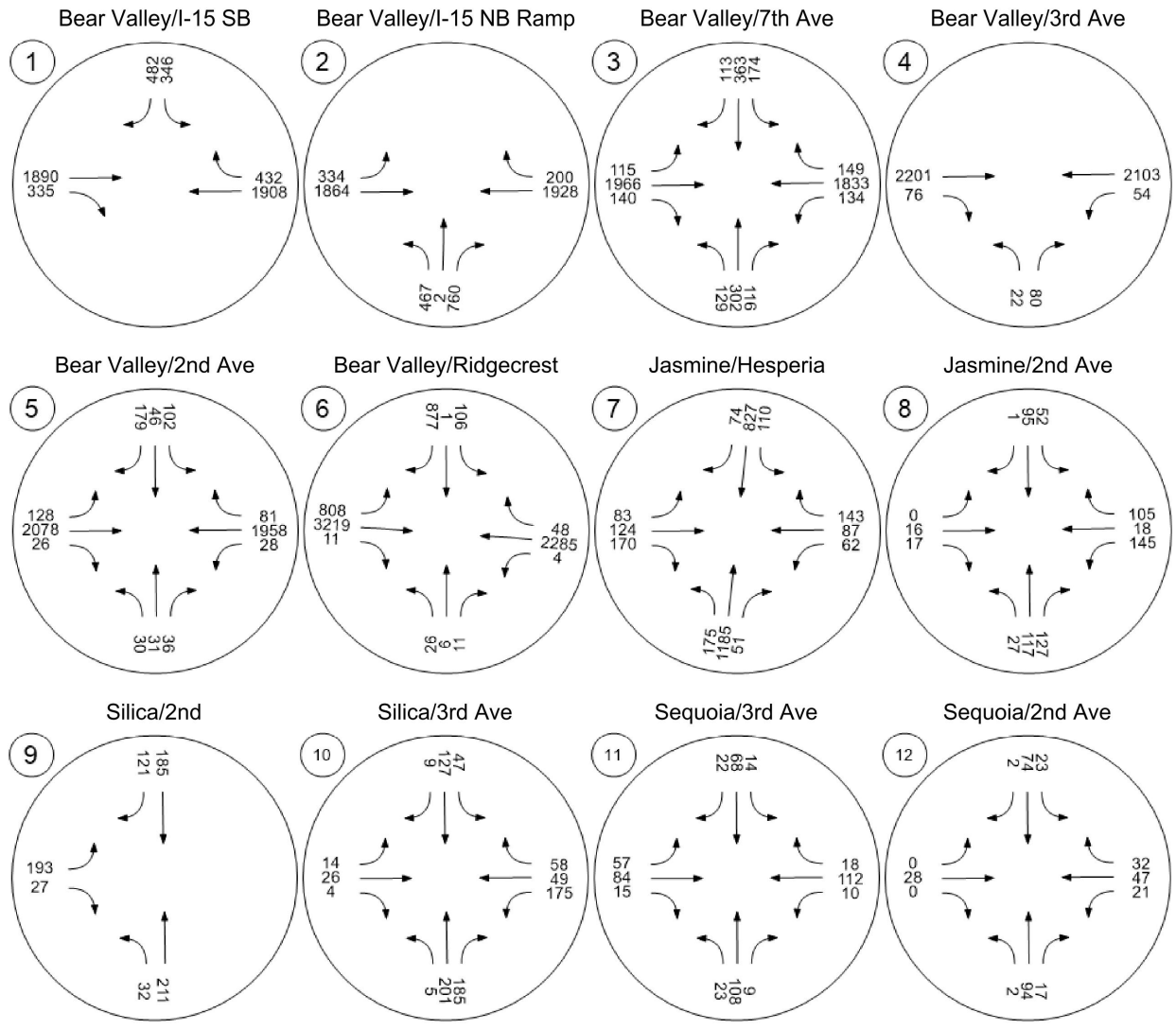


Legend:
 XX Peak Hour Volumes
 --- Project Site



Exhibit 14: Future Year (2033) without Project AM Peak Hour Volumes





Legend:
 XX Peak Hour Volumes
 --- Project Site



Exhibit 15: Future Year (2033) without Project PM Peak Hour Volumes



Table 14: Intersection Analysis – 2033 NP Conditions

Intersection			Control Type	Peak Hour	2033NP Conditions	
					Delay ¹	LOS
1	I-15 SB	Bear Valley	Signal	AM	8.2	A
				PM	14.3	B
2	I-15 NB	Bear Valley	Signal	AM	75.1	E
				PM	139.4	F
3	7th Ave	Bear Valley	Signal	AM	36.3	D
				PM	59.2	E
4	3rd Ave	Bear Valley	Signal	AM	421.5	F
				PM	1768.9	F
5	2nd Ave	Bear Valley	Signal	AM	17.5	B
				PM	26.4	C
6	Ridgecrest	Bear Valley	Signal	AM	187.5	F
				PM	224.3	F
7	Jasmine	Hesperia	Signal	AM	25.6	C
				PM	30.7	C
8	Jasmine	2nd Ave	AWSC	AM	10.4	B
				PM	10.5	B
9	Silica	2nd Ave	AWSC	AM	14.9	B
				PM	13.2	B
10	Silica	3rd Ave	AWSC	AM	19.3	C
				PM	16.6	C
11	Sequoia	3rd Ave	TWSC	AM	11.9	B
				PM	14.4	B
12	Sequoia	2nd Ave	TWSC	AM	10.4	B
				PM	10.9	B

Note: AWSC = All- Way Stop-Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 14**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *future year without project* conditions with the exception of the following intersection:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS E AM Peak Hour/LOS F PM Peak Hour);
- #3 – 7th Ave/Bear Valley Rd (LOS E PM Peak Hour);
- #4 - 3rd Ave/Bear Valley Rd (LOS F AM/PM Peak Hour); and
- #6 - Ridgecrest Rd/Bear Valley (LOS F AM/PM Peak Hour).

9.0 FUTURE YEAR (2033) WITH PROJECT CONDITIONS (2033WP)

Future year with project (2033WP) conditions analysis is intended to determine any long-range cumulative project impacts on the planned circulation system.

9.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *future year with project* conditions are consistent with those previously shown in **Exhibit 3**, with the exception of project driveways and other facilities assumed to be constructed by the proposed project to provide site access. Improvements include the north end of the intersection of Bear Valley Road/3rd Avenue and signalization of the intersection.

9.2 FUTURE YEAR (2033) WITH PROJECT TRAFFIC VOLUMES

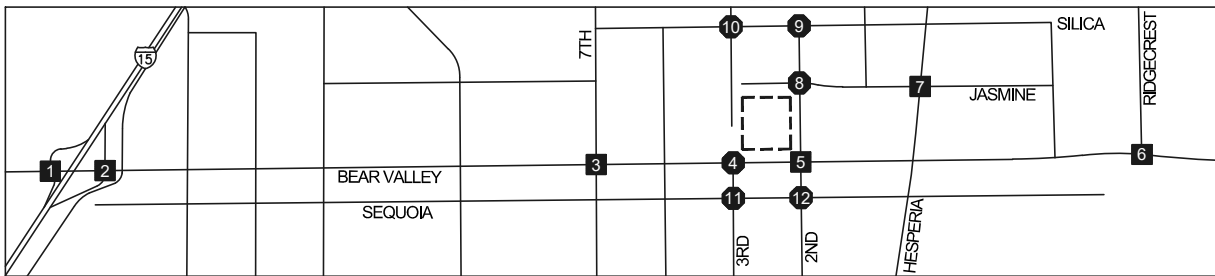
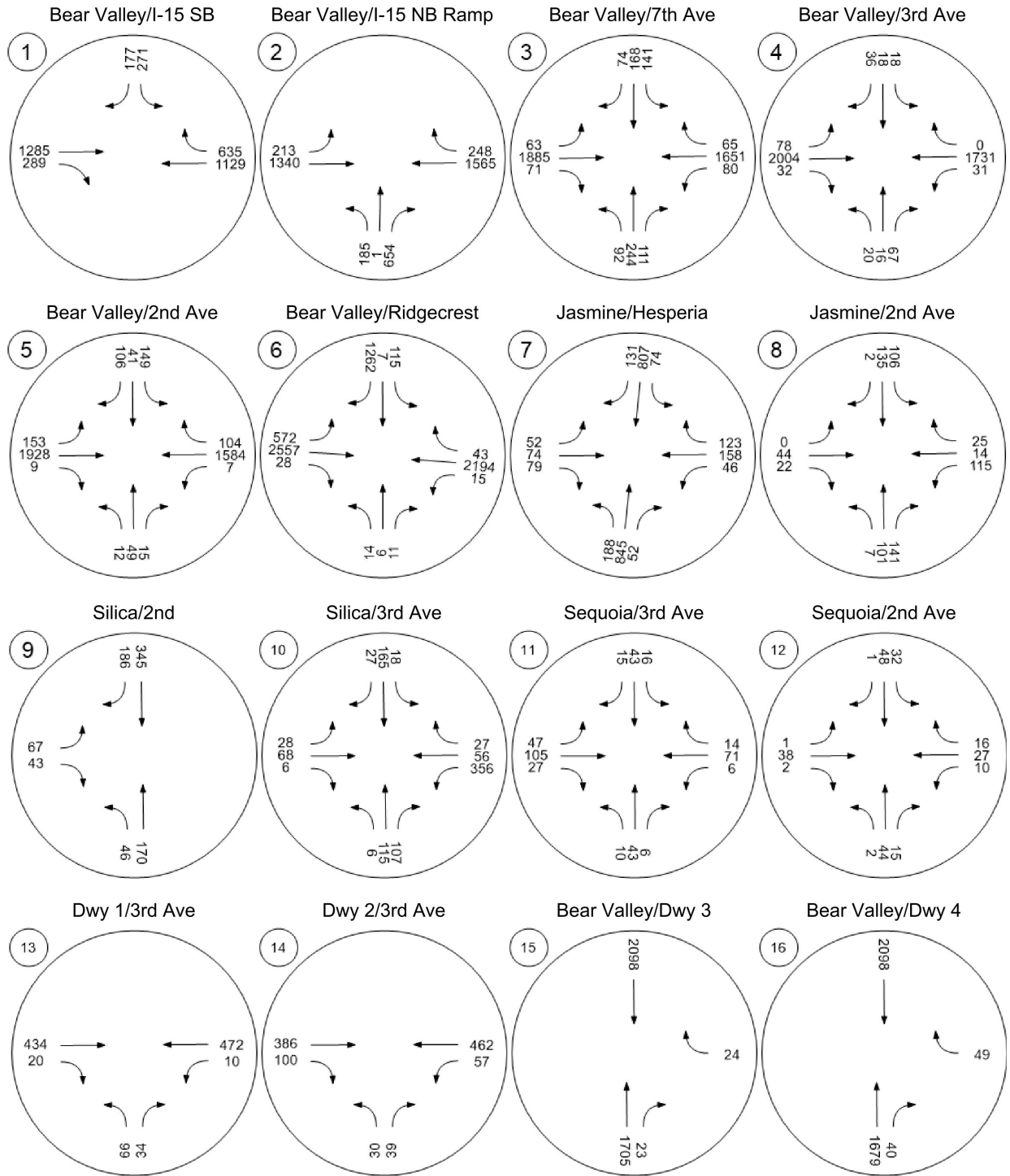
Future year with project volumes include background traffic anticipated for year 2033 plus the addition of the traffic projected to be generated by the proposed project. A growth rate of 1.5% per year from existing year (2019) to future year (2033) was used to determine *future year with project* volumes. This growth rate accounts for cumulative project traffic and was determined based on the San Bernardino Transportation Analysis Model (SBTAM) Year 2012 and Year 2040 traffic models.

$2033WP \text{ Volumes} = (\text{Existing (2019) Counts} * 1.015^{14}) + \text{Project Volume}$

Exhibit 16 and **Exhibit 17** shows *future year with project* AM and PM peak hour volumes at the study intersections.

9.3 FUTURE YEAR (2033) WITH PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

2033WP conditions AM and PM peak hour intersection analysis is shown in **Table 15**. HCM analysis sheets are provided in **Appendix C**.

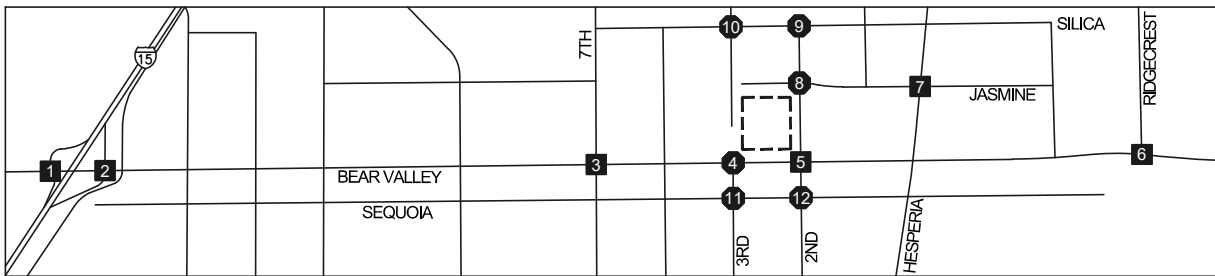
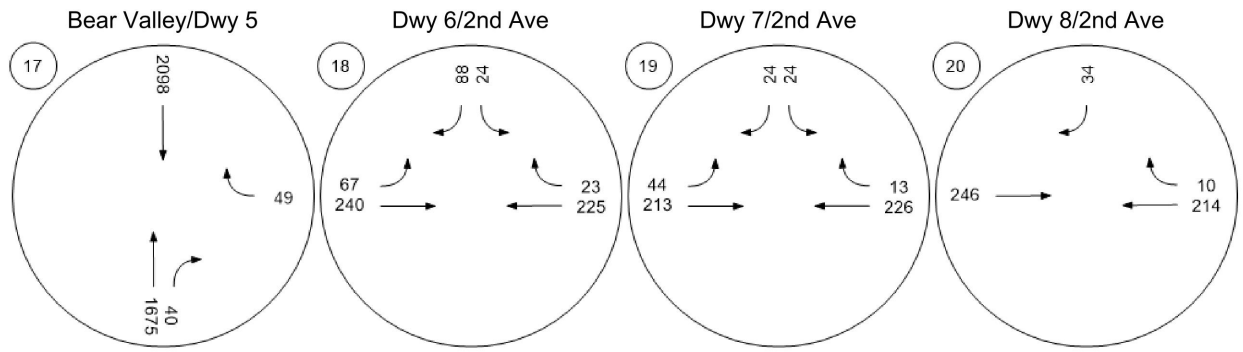


Legend:
 XX Peak Hour Volumes
 --- Project Site



Exhibit 16: Future Year (2033) with Project AM Peak Hour Volumes





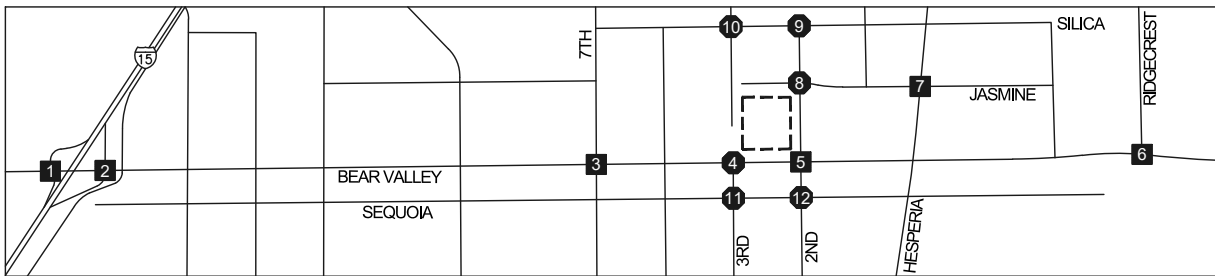
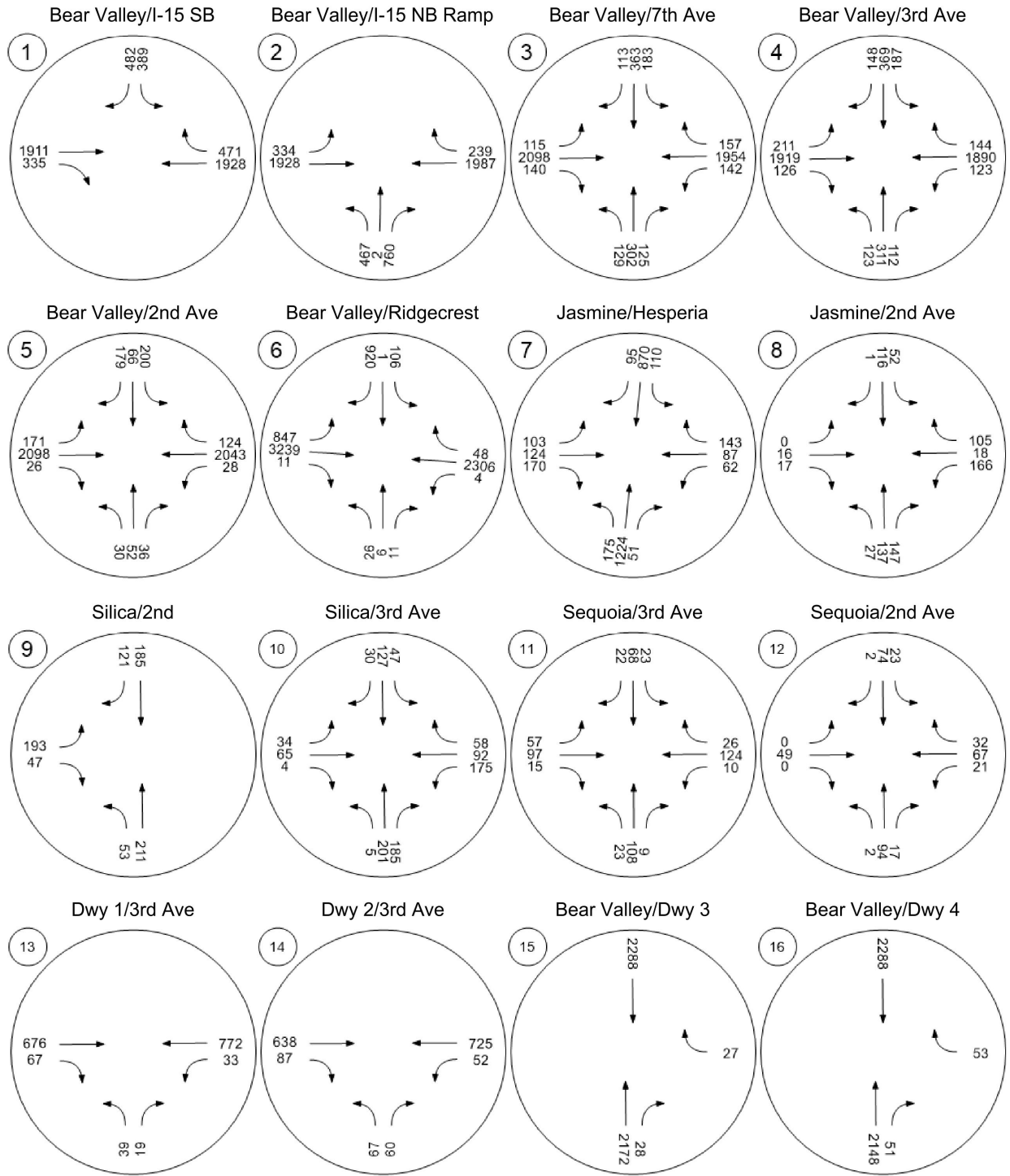
Legend:

- XX Peak Hour Volumes
- Project Site



Exhibit 16 (Continued): Future Year (2033) with Project AM Peak Hour Volumes





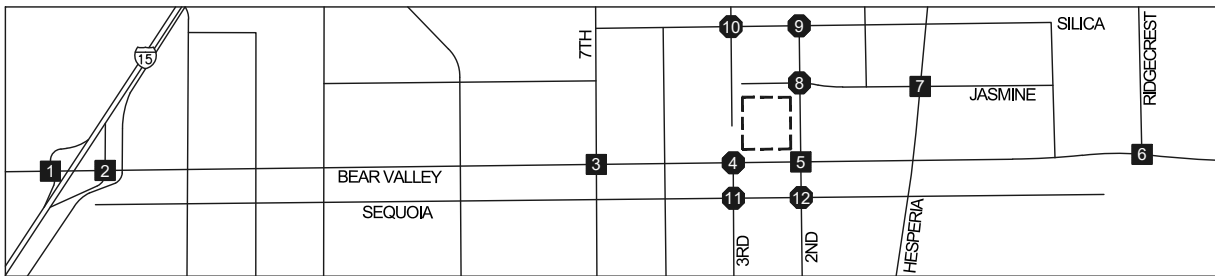
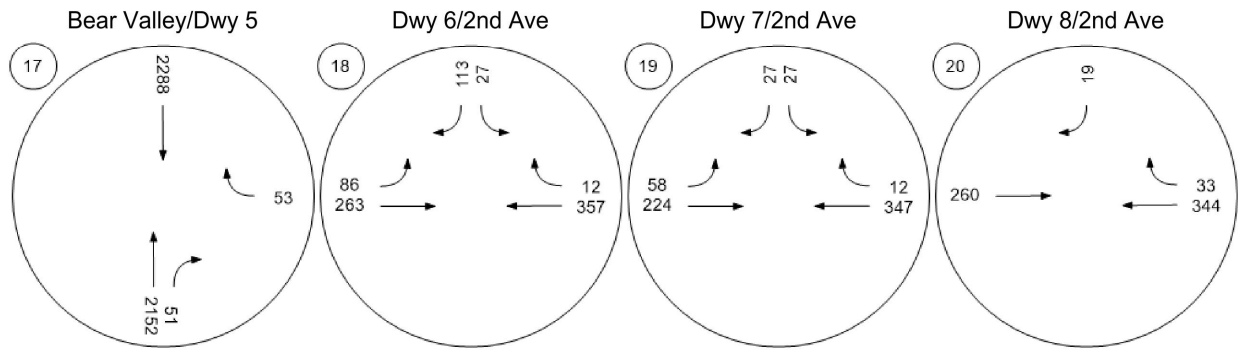
Legend:

- XX Peak Hour Volumes
- Project Site



Exhibit 17: Future Year (2033) with Project PM Peak Hour Volumes





Legend:

- XX Peak Hour Volumes
- Project Site



Exhibit 17 (Continued): Future Year (2033) with Project PM Peak Hour Volumes



Table 15: Intersection Analysis – 2033WP Conditions

Intersection			Control Type	Peak Hour	2033NP Conditions		2033WP Conditions		Change	Impact?
					Delay ¹	LOS	Delay ¹	LOS		
1	I-15 SB	Bear Valley	Signal	AM	8.2	A	8.7	A	0.5	No
				PM	14.3	B	14.6	B	0.3	No
2	I-15 NB	Bear Valley	Signal	AM	75.1	E	81.1	F	5.9	Yes
				PM	139.4	F	145.6	F	6.3	Yes
3	7th Ave	Bear Valley	Signal	AM	36.3	D	39.7	D	3.5	No
				PM	59.2	E	68.0	E	8.9	Yes
4	3rd Ave	Bear Valley	Signal	AM	421.5	F	15.7	B	-405.8	No
				PM	1768.9	F	53.9	D	-1714.9	No
5	2nd Ave	Bear Valley	Signal	AM	17.5	B	24.0	C	6.6	No
				PM	26.4	C	40.3	D	13.9	No
6	Ridgecrest	Bear Valley	Signal	AM	187.5	F	193.9	F	6.4	Yes
				PM	224.3	F	240.4	F	16.0	Yes
7	Jasmine	Hesperia	Signal	AM	25.6	C	26.2	C	0.7	No
				PM	30.7	C	32.7	C	2.0	No
8	Jasmine	2nd Ave	AWSC	AM	10.4	B	10.9	B	0.6	No
				PM	10.5	B	11.2	B	0.8	No
9	Silica	2nd Ave	AWSC	AM	14.9	B	18.5	C	3.7	No
				PM	13.2	B	14.1	B	0.9	No
10	Silica	3rd Ave	AWSC	AM	19.3	C	26.6	D	7.3	No
				PM	16.6	C	22.4	C	5.8	No
11	Sequoia	3rd Ave	TWSC	AM	11.9	B	12.2	B	0.3	No
				PM	14.4	B	15.1	C	0.6	No
12	Sequoia	2nd Ave	TWSC	AM	10.4	B	10.6	B	0.2	No
				PM	10.9	B	11.2	B	0.3	No
13	3rd Ave	Driveway 1	OWSC	AM	--	--	15.5	C	--	--
				PM	--	--	26.4	D	--	--
14	3rd Ave	Driveway 2	OWSC	AM	--	--	14.3	B	--	--
				PM	--	--	30.9	D	--	--
15	Driveway 3	Bear Valley	OWSC	AM	--	--	20.7	C	--	--
				PM	--	--	29.4	D	--	--
16	Driveway 4	Bear Valley	OWSC	AM	--	--	22.3	C	--	--
				PM	--	--	33.6	D	--	--
17	Driveway 5	Bear Valley	OWSC	AM	--	--	22.2	C	--	--
				PM	--	--	33.7	D	--	--
18	2nd Ave	Driveway 6	OWSC	AM	--	--	10.6	B	--	--
				PM	--	--	11.9	B	--	--
19	2nd Ave	Driveway 7	OWSC	AM	--	--	10.8	B	--	--
				PM	--	--	12.2	B	--	--

Note: AWSC = All- Way Stop-Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Intersection			Control Type	Peak Hour	2033NP Conditions		2033WP Conditions		Change	Impact?
					Delay ¹	LOS	Delay ¹	LOS		
20	2nd Ave	Driveway 8	OWSC	AM	--	--	9.1	A	--	--
				PM	--	--	9.5	A	--	--

Note: AWSC = All-Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 15**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *future year with project* conditions with the exception of the following intersection:

- #2 - I-15 NB Ramp/Bear Valley Rd (LOS F AM/PM Peak Hour);
- #3 - 7th Ave/Bear Valley Rd (LOS E PM Peak Hour); and
- #6 - Ridgecrest Rd/Bear Valley Rd (LOS F AM/PM Peak Hour).

9.4 FUTURE YEAR (2033) WITH PROJECT CONDITIONS SIGNAL WARRANT ANALYSIS

Traffic signal warrants for *future year with project* conditions have been prepared based on *future year with project* peak-hour and four-hour intersection volumes at the project site access locations.

Table 16 summarizes the results of the signal warrant analysis. Detailed warrant analysis sheets are contained in **Appendix D**.

Table 16: Signal Warrant Analysis – 2033WP Conditions

Intersection			Four-Hour Signal Warrant Met?	Peak Hour Signal Warrant Met?	
				AM Peak Hour	PM Peak Hour
4	3rd Ave	Bear Valley	Yes	Yes	Yes
8	Jasmine	2nd Ave	No	No	No
9	Silica	2nd Ave	No	No	No
10	Silica	3rd Ave	No	No	No
11	Sequoia	3rd Ave	No	No	No
12	Sequoia	2nd Ave	No	No	No

Peak-hour and four-hour signal warrants are not met at any of the unsignalized study intersections for *future year with project* conditions.

9.5 FUTURE YEAR (2033) WITH PROJECT RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *future year with project* conditions.

2033WP Recommended Improvement (2033WP-1): I-15 NB Ramp/Bear Valley Rd - Improve intersection to accommodate a right turn lane for westbound Bear Valley Street.

2033WP Recommended Improvement (2033WP-2): 7th Ave/Bear Valley Rd - Re-stripe intersection to accommodate a northbound left-turn lane, northbound through lane, and northbound right-turn lane.

2033WP Recommended Improvement (2033WP-3): 3rd Ave/Bear Valley Rd - Signalize intersection. This improvement will be a part of project related improvements, which include the addition of the north leg of the intersection.

2033WP Recommended Improvement (2033WP-4): Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

Table 17 shows *future year with project* level of service at the intersections with the recommended improvements.

Table 17: Intersection Analysis – 2033WP Conditions with Recommended Improvements

Intersection			Control Type	Peak Hour	2033NP Conditions		2033WP Conditions		2033WP with Recommended Improvements	
					Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
2	I-15 NB	Bear Valley	Signal	AM	75.1	E	81.1	F	68.0	E
				PM	139.4	F	145.6	F	130.4	F
3	7th Ave	Bear Valley	Signal	AM	36.3	D	39.7	D	30.9	C
				PM	59.2	E	68.0	E	53.8	D
4	3rd Ave	Bear Valley	Signal	AM	421.5	F	15.7	B	15.7	B
				PM	1768.9	F	53.9	D	53.9	D
6	Ridgecrest	Bear Valley	Signal	AM	187.5	F	193.9	F	176.5	F
				PM	224.3	F	240.4	F	193.1	F

Note: AWSC = All-Way Stop-Control, TWSC = Two-Way Stop Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 17**, with the recommended improvements, the intersections are projected to operate at an acceptable/improved LOS for *future year with project* conditions.

10.0 VEHICLE MILES TRAVELED (VMT) ANALYSIS

This section summarizes the VMT analysis conducted for the proposed project to provide consistency and compliance with California Environmental Quality Act (CEQA).

10.1 SAN BERNARDINO COUNTY TRAFFIC ANALYSIS MODEL (SBTAM)

As outlined in Section 2.3.2, this VMT analysis utilized the San Bernardino County Traffic Analysis Model (SBTAM). The SBTAM model was utilized to develop the project VMT per service population to be compared to the City's General Plan Buildout scenario VMT per service population to identify project impacts. The City's General Plan Buildout scenario VMT per service population data was obtained from the online San Bernardino County Transportation Authority (SBCTA) screening tool.¹

The project VMT per service population was estimated using SBTAM model runs. The SBTAM socioeconomic database for the City's General Plan Buildout (2040) scenario were updated with the project land uses to calculate project VMT. The project TAZ was utilized to calculate project specific VMT per service population. Model runs were conducted for this updated model after incorporating the project land uses. Since the project is a mixed land use type, Origin/Destination (OD) methods were used as recommended in the City guidelines. Project-generated VMT was extracted from these SBTAM model runs using the origin-destination trip matrix and by multiplying the matrix by the final assignment skims.

10.2 VMT ANALYSIS

The City's General Plan Buildout scenario and SBTAM model run's (as outlined above) VMT per service population are summarized below. As shown in **Table 18**, the project's VMT per service population is 10.2 percent lower than the City's General Plan Buildout scenario VMT per service population. Therefore, based on the City guidelines, the project will not have significant VMT impacts. Detailed VMT calculations for the project are included in **Appendix E**.

Table 18: General Plan Buildout (2040) VMT Per Service Population

Scenario	City of Victorville	Project	Difference	Percentage Difference
General Plan Buildout	36.2	32.5	(3.7)	(10.2%)

Source: SBCTA Online Screening Tool; SBTAM Model Run

¹ <https://devapps.fehrandpeers.com/sbctavmt/>

11.0 CONCEPTUAL STRIPING

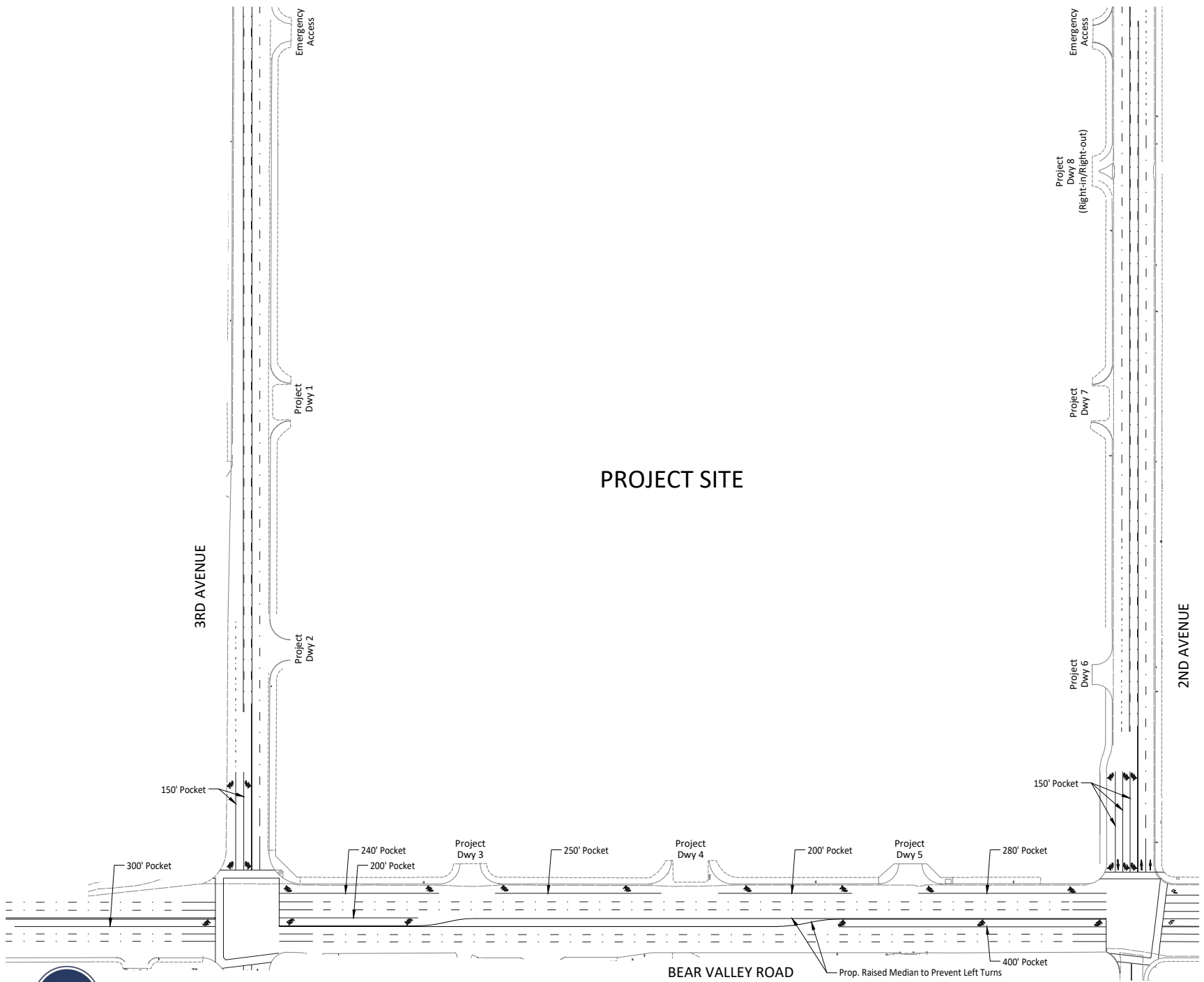
This section summarizes proposed site access and on-site circulation recommendations.

11.1 ON-SITE ROADWAY IMPROVEMENTS

Whenever necessary, roadways adjacent to the proposed project site and site access points should be constructed in compliance with recommended roadway classifications and respective cross-sections in the City of Victorville General Plan Circulation Element or as directed by the City Engineer.

11.2 CONCEPTUAL STRIPING

As shown in *Exhibit 18*, the conceptual striping depicts 3rd Avenue, Bear Valley Road, and 2nd Avenue. 3rd Avenue is a 3-Lane divided roadway and will have a two-way left turn lane to allow access into the project. Bear Valley Road is a 6-Lane divided roadway and will have a raised median to maintain right-int right-out access to the project site. 2nd Avenue is a 4-Lane divided roadway. It will have a two-way left turn lane for access into the project.



TJW ENGINEERING, INC.

Exhibit 18: Conceptual Striping Plan

LVA-19-002 Bear Valley Marketplace Traffic Impact Analysis



Not to Scale

12.0 MITIGATION AND FAIR SHARE

The proposed project will contribute to the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program.

The City Engineer will ultimately determine the improvements required at off-site intersections.

12.1 MITIGATION MEASURES

The traffic study was conducted to identify any anticipated deficiencies that the proposed project may contribute to. Roadway improvements have been identified that will reduce operational deficiencies throughout the proposed study area.

12.2 FAIR SHARE CALCULATIONS

Transportation improvements throughout the City of Victorville are funded through a combination of direct project mitigation, faire share contributions, or development impact fee programs. The project's contribution to the aforementioned transportation improvement funding mechanisms or as a fair share contribution towards a cumulatively impacted facility should be considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate cumulative project impacts. **Table 19** calculates the proposed project's fair share percentage at impacted intersections.

Table 19: Fair Share Calculations

Intersection	Existing AM&PM Peak Hour Volume (A)	2033 AM & PM Peak Hour		
		Total Volume (B)	Project Volume (C)	Fair Share (C)/(B-A)
#2 - I-15 NB Ramp/Bear Valley Rd	7813	9997	373	17.08%
#3 - 7 th Ave/Bear Valley Rd	8074	10466	520	21.74%
#6 - Ridgecrest Rd/Bear Valley Rd	11466	14349	224	7.77%

Appendices

APPENDIX A

SCOPING AGREEMENT AND CITY OF VICTORVILLE GENERAL PLAN ROADWAY CLASSIFICATIONS
AND CROSS SECTIONS



TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

September 29, 2020

Mr. Anwar Wagdy, TE
City of Victorville
14343 Civic Drive
Victorville, CA 92392

SUBJECT: Bear Valley Marketplace Traffic Impact Analysis Scoping Agreement, City of Victorville

Dear Mr. Wagdy,

TJW Engineering, Inc. (TJW) will be preparing a traffic impact analysis (TIA) for the proposed Bear Valley Marketplace project located at the northwest corner of Bear Valley Road and 2nd Ave in City of Victorville. The proposed project will be built in phases between 2021 and 2023 and includes the following land uses:

- Parcel A
 - 16 pump gas station with 3,500 square feet convenience store
- Parcel B
 - 4,400 square feet fast food with drive thru
- Parcel C1
 - 6,100 square feet of commercial retail space
 - 6,600 square feet of fast food with drive thru
- Parcel C2
 - 55,989 square feet of commercial retail space
- Parcel C3
 - 10,080 square feet of medical office space
- Parcel D
 - 376 dwelling unit multi-family residential complex
- Parcel E
 - 10,000 square feet of general office space
 - 139,091 square feet of storage space

Note, there are two (2) site plan options being considered. Option 1 is presented above. Option 2 would expand housing in Parcel D from 376 to 438 dwelling units and reduce commercial retail space in Parcel C2 from 55,989 square feet to 23,000 square feet. This scoping agreement (and subsequent TIA) assumes Option 1, as the retail land use generates a higher volume of trips and allows for a conservative analysis. The proposed site plan (Option 1) has been attached to this letter in addition to the alternative site plan (Option 2). TJW anticipates the following scope will be required for a traffic impact analysis.

SCOPE OF SERVICES

Trip Generation Assumptions

Trip generation for the proposed project will be developed using rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). As shown below, Table 1 shows the project is anticipated to generate 10,694 daily trips, 667 AM peak hour trips, and 816 PM peak hour trips.

Table 1: Proposed Project Trip Generation

Proposed Land Use ¹	Qty	Unit ²	Daily Trips (ADTs)		AM Peak Hour					PM Peak Hour					Pass-By % Reduction		
			Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume			AM	PM	Daily
							In	Out	Total			In	Out	Total			
Parcel A																	
Gas Station w/ Convenience Market (945)	16.00	VFP	205.36	3,286	12.47	51:49	102	98	200	13.99	51:49	114	110	224	50%	45%	45%
Parcel B																	
Fast Food with Drive Thru (934)	4.40	TSF	470.95	2,072	40.19	51:49	90	87	177	32.67	52:48	75	69	144	35%	35%	35%
Parcel C1																	
Shopping Center (820)	6.10	TSF	37.75	230	0.94	62:38	4	2	6	3.81	48:52	11	12	23	10%	25%	10%
Fast Food with Drive Thru (934)	6.60	TSF	470.95	3,108	40.19	51:49	135	130	265	32.67	52:48	112	104	216	35%	35%	35%
Parcel C2																	
Shopping Center (820)	55.99	TSF	37.75	2,114	0.94	62:38	33	20	53	3.81	48:52	102	111	213	10%	25%	10%
Parcel C3																	
Medical Offices (720)	10.08	TSF	34.8	351	2.78	78:22	22	6	28	3.46	28:72	10	25	35	--	--	--
Parcel D																	
Multi-Family Residential (220)	376	DU	7.32	2,752	0.46	23:77	40	133	173	0.56	63:37	133	78	211	--	--	--
Parcel E																	
General Office Building (710)	10.00	TSF	9.74	97	1.16	86:14	10	2	12	1.15	16:84	2	10	12	--	--	--
Mini-Warehouse (151)	139.09	TSF	1.51	210	0.10	60:40	8	6	14	0.17	47:53	11	13	24	--	--	--
Totals																	
Total				14,220			444	484	928			571	531	1,102	--	--	--
Pass-By				-3,526			-134	-127	-260.6			-145	-141	-285.8			
Net Total				10,694			311	357	667			425	391	816			

1: Rates from ITE Trip Generation (10th Edition, 2017)

2: TSF = Thousand Square Feet; DU = Dwelling Units, VFP = Vehicle Fueling Positions

Trip Distribution Assumptions

Project trip distributions will be based on the surrounding regional access routes to identify probable routes onto which project traffic would distribute. The anticipated travel patterns to and from the project site are shown in the attached exhibits.

Study Intersections

The study area shall generally include intersections in which the proposed project may create a significant impact. As such, TJW proposes to include the following intersections:

1. Bear Valley Rd / I-15 SB Ramps
2. Bear Valley Rd / I-15 NB Ramps
3. Bear Valley Rd / 7th Ave
4. Bear Valley Rd / 3rd Ave
5. Bear Valley Rd / 2nd Ave
6. Bear Valley Rd / Ridgecrest Rd
7. Jasmine St / Hesperia Rd
8. Jasmine St / 2nd Ave
9. Silica Dr / 2nd Ave
10. Silica Dr / 3rd Ave
11. Sequoia St / 3rd Ave
12. Sequoia St / 2nd Ave

Analysis Methodology and Scenarios

The analysis of traffic and level of service will be provided for the following scenarios and will include an assessment of traffic mitigation measures if any are required. It should be noted, the project will be constructed in phases beginning 2021 and completing in 2023.

1. Existing Conditions
2. Existing Plus Project Conditions
3. Project Opening Year 2023 without Project Conditions
4. Project Opening Year 2023 with Project Conditions
5. Future Year 2033 without Project Conditions
6. Future Year 2033 with Project Conditions

The TIA will analyze study intersections during the AM and PM peak hours. Intersection level of service (LOS) will be calculated using the Highway Capacity Manual 6 (HCM 6) analysis methodologies.

Volume Development

Traffic volumes for existing year traffic conditions will be based on existing AM and PM peak hour traffic counts for the study intersections identified above. Traffic counts were conducted between the hours of 7 AM and 9 AM for the AM peak hour and between the hours of 4 PM and 6 PM for the PM peak hour and avoiding any school/roadway closure periods. Existing year traffic counts were taken in October and December of 2019 before any closure/effects of COVID-19.

Project Opening Year 2023 traffic volumes will be developed by applying an annual growth rate of 2% to the existing volumes, plus the addition of cumulative projects (to be provided by the City).

Future Year 2033 traffic volumes will be developed by applying an annual growth rate to the existing volumes. The annual growth rate will be developed and based on the San Bernardino County Transportation Analysis Model (SBTAM).

Project Impact Assessment and Mitigation Measures

Intersection LOS without the project will be compared to the intersection LOS with the project for each of the analysis scenarios to determine potential project impacts. Determination of a project impact will be made based on the City's LOS threshold standards. If the level of service analysis shows that the project causes a significant impact at a study facility, feasible improvements will be recommended to reduce the impact to a level considered less than significant and/or to baseline conditions. As applicable, the project's fair share will be estimated as part of the mitigation section (fair share is 100% for direct impacts).

Vehicle Miles Traveled (VMT) Analysis

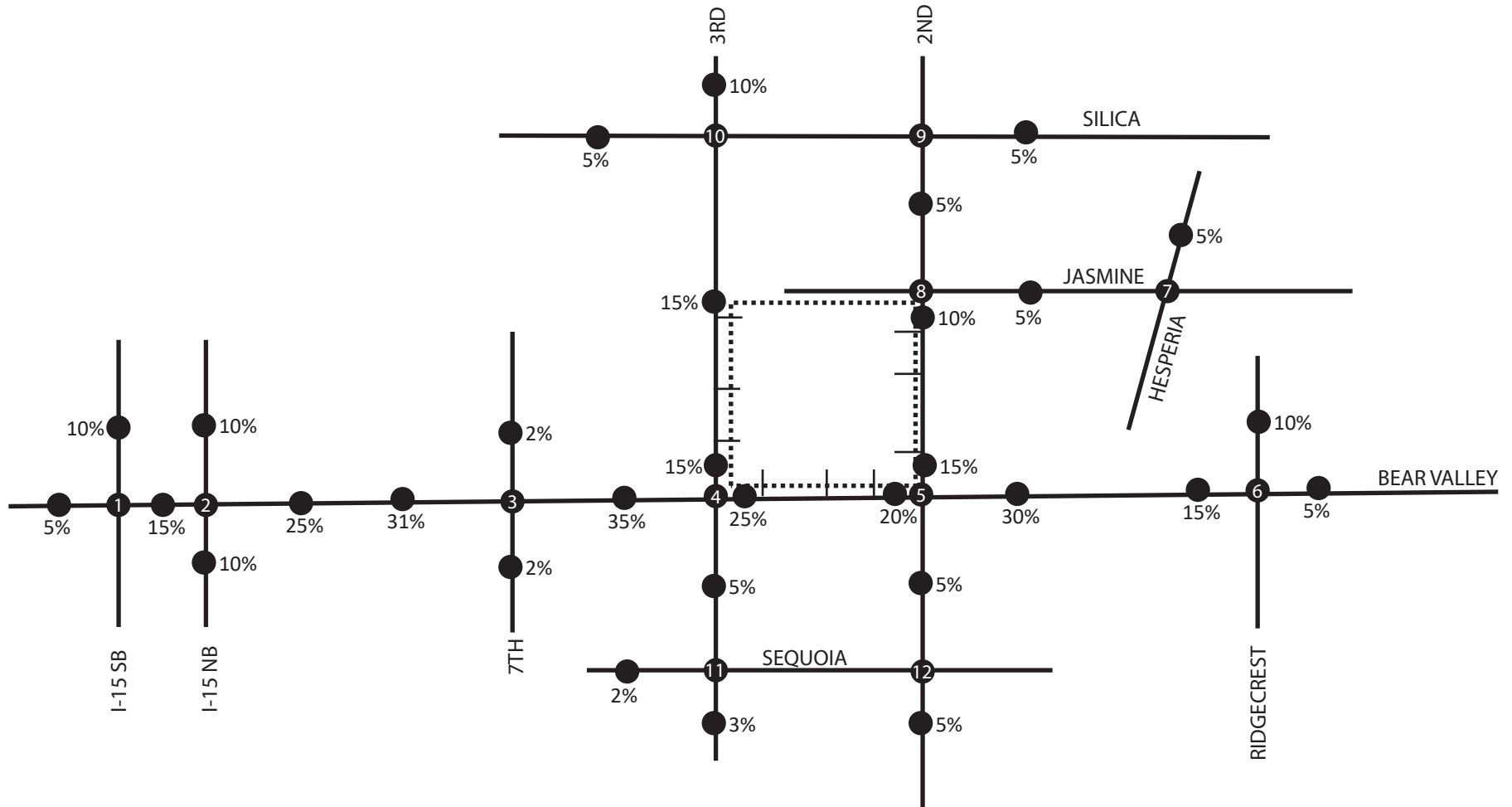
A Vehicle Miles Traveled (VMT) Analysis will be conducted in compliance with SB 743 and CEQA regulations. This analysis will follow the City of Victorville VMT Analysis Guideline's. This process will include project screening results, and if applicable, a comprehensive VMT analysis utilizing the San Bernardino County Transportation Analysis Model (SBTAM).

Project Site Access

This section will include analysis of traffic operations at the proposed driveways and recommendations regarding any turning restrictions at driveways with respect to Bear Valley Road, 2nd Avenue, and 3rd Avenue. The project also proposes to construct a signal at Bear Valley Rd and 3rd Ave. This analysis will include a signal warrant analysis to ensure justification of the signal at the intersection. Queue lengths will also be provided to ensure proper design of any left turn pockets.

When reviewing and analyzing the project site access, compliance with the roadway designations outlined in the City's General Plan Circulation Element will be followed. Specifically, a required raised median along Bear Valley. In addition, concept striping plans for site access along the roadways will be provided to ensure compliance with any roadway classification requirements outlined in the City's General Plan.

If you have any questions regarding this scope of work or project, please feel free to contact me at David@tjwengineering.com or at (949) 878-3509.



XX% Percent Trip Distribution

----- Project Site

X Study Intersection Location

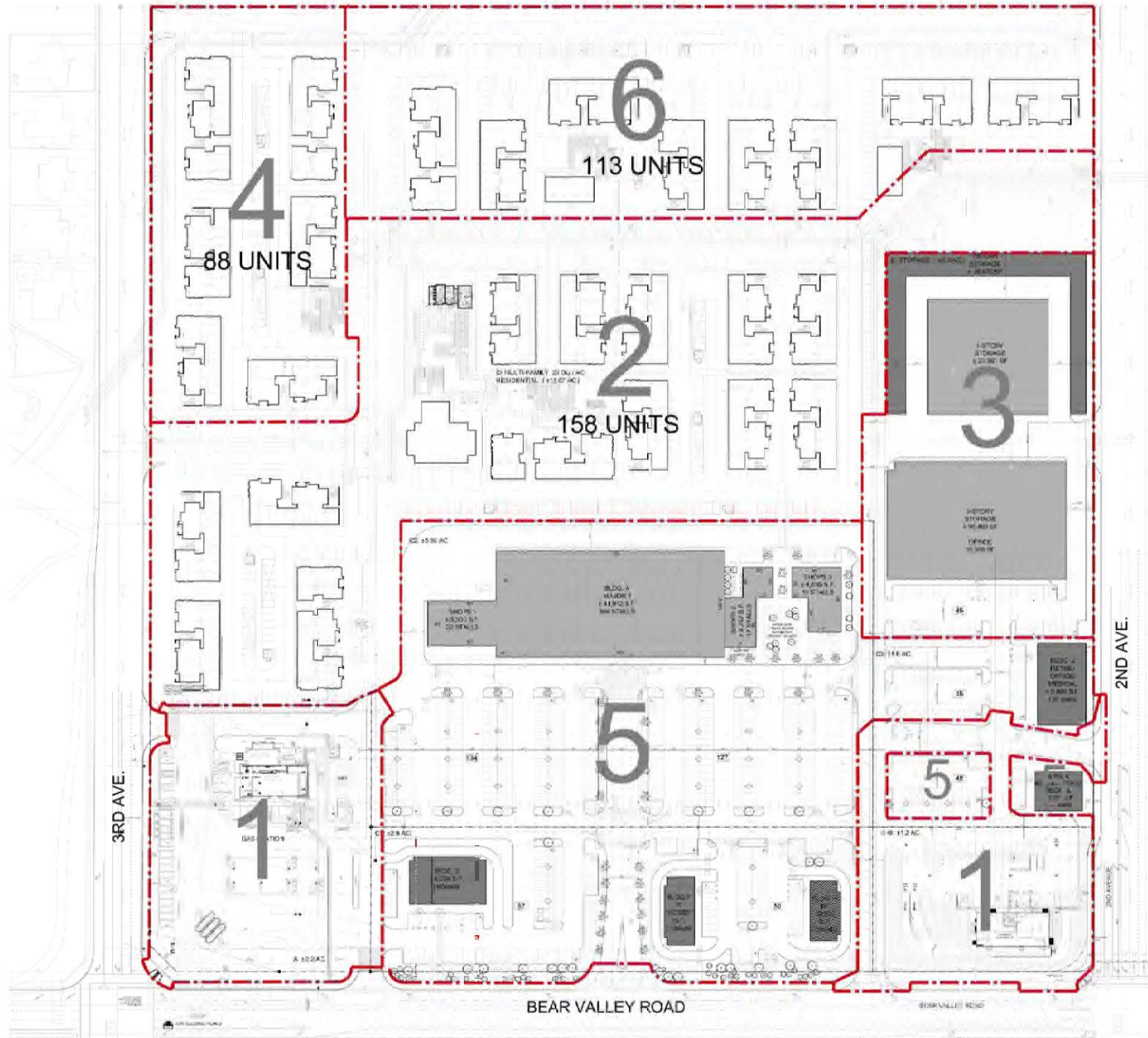


Exhibit 1: Projected Trip Distribution of Proposed Project

LVA-19-002 Bear Valley Marketplace Traffic Impact Analysis



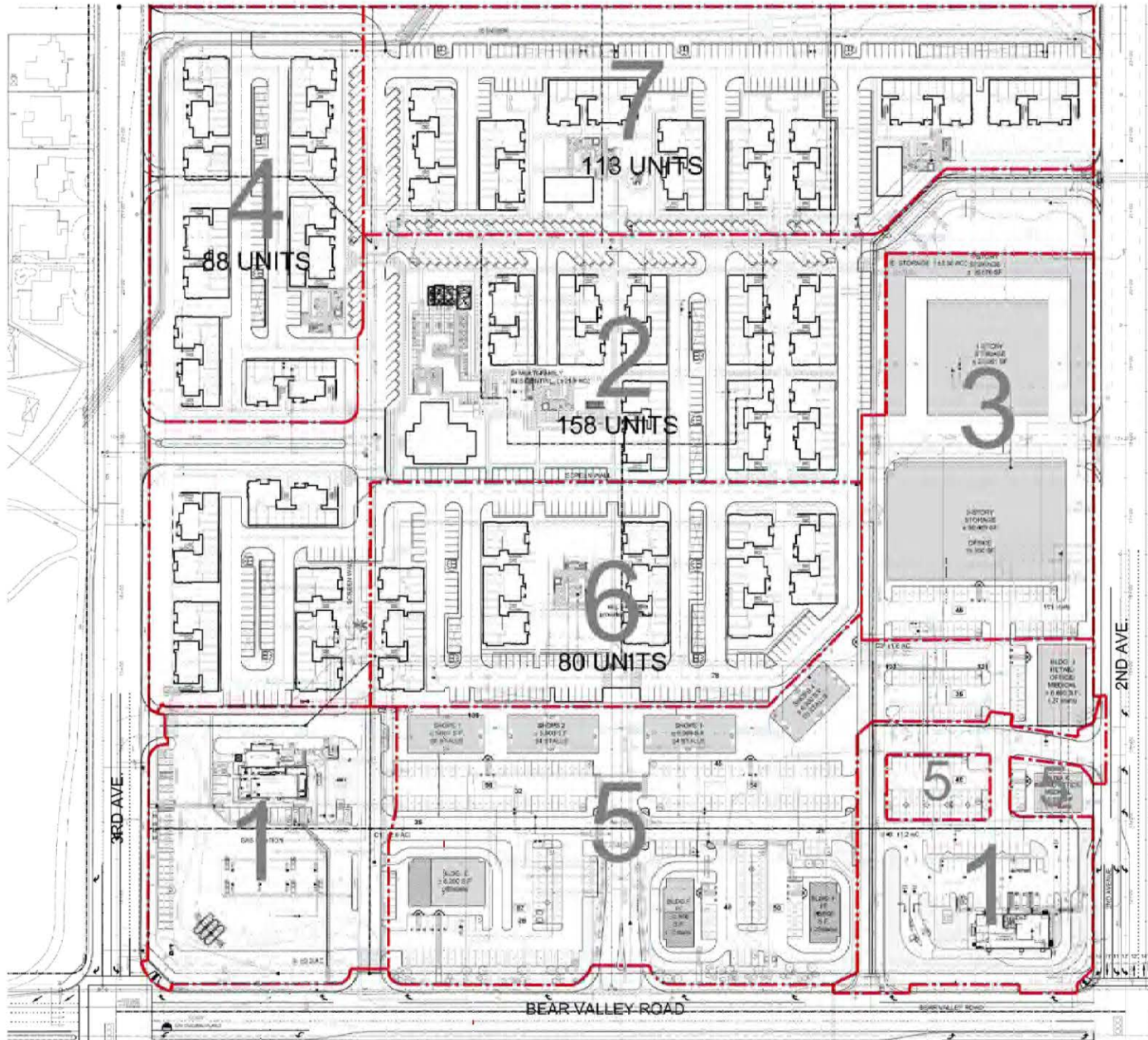
Not to Scale



SUMMARY:

PARCEL A (GAS STATION)	= ± 2.1 AC.
RETAIL	= ± 3,500 S.F.
PARKING PROVIDED	= ± 38 SPACES
PARCEL B (McDonald)	
FAST FOOD	= ± 1.2 AC.
PARKING REQ.	= 44 SPACES
PARKING PROVIDED	= ± 43 SPACES
PARCEL C1 (RETAIL)	
PADS W/ DRIVE THRU	= ± 2.9 AC
	= ± 12,700 S.F.
PAD E	= 6,200 SF
1,800 SF DRIVE-THRU (See delineated area)	
4,400 SF SHOPS	
PAD F	= 3,500 SF
1,800 SF DRIVE-THRU (See delineated area)	
1,700 SF SHOPS	
PAD H	= 3,000 SF
3,000 SF DRIVE-THRU (See delineated area)	
PARKING PROVIDED	
DRIVE THRU	= ± 117 SPACES
RATIO	= 10/1000
PARCEL C2 (RETAIL/ OFFICE)	
MAJOR 1	= ± 5.89 AC
PADS AND SHOPS	= ± 41,912 S.F.
	= ± 14,077 S.F.
PARCEL C3 (RETAIL/ OFFICE)	
RETAIL/OFFICE/MEDICAL	= ± 1.6 AC
	= ± 10,080 S.F.
TOTAL	= ± 66,069 S.F.
PARKING PROVIDED	= ± 338 SPACES
OVERALL PARKING RATIO	= ± 5/1000
PARCEL D (RESIDENTIAL)	
DWELLING UNITS	= ± 18.67 AC
GROSS AREA	= 376 UNITS
PARKING REQ'D.	= 483,736 SF
PARKING PROVIDED	= 750
	= 771
PARCEL E	
STORAGE / OFFICE	= ± 3.3 AC
	= ± 139,091 SF.
	= 10,000 SF.
OFFICE PARKING RATIO	= 4/1000
PARKING PROVIDED	= ± 45 SPACES
NOTE:	
(2) TWO UNITS WILL BECOME MAINTENANCE ROOMS	

PROPOSED SITE PLAN
 SCALE: 1" = 50' - 0"
 Conceptual Design Package



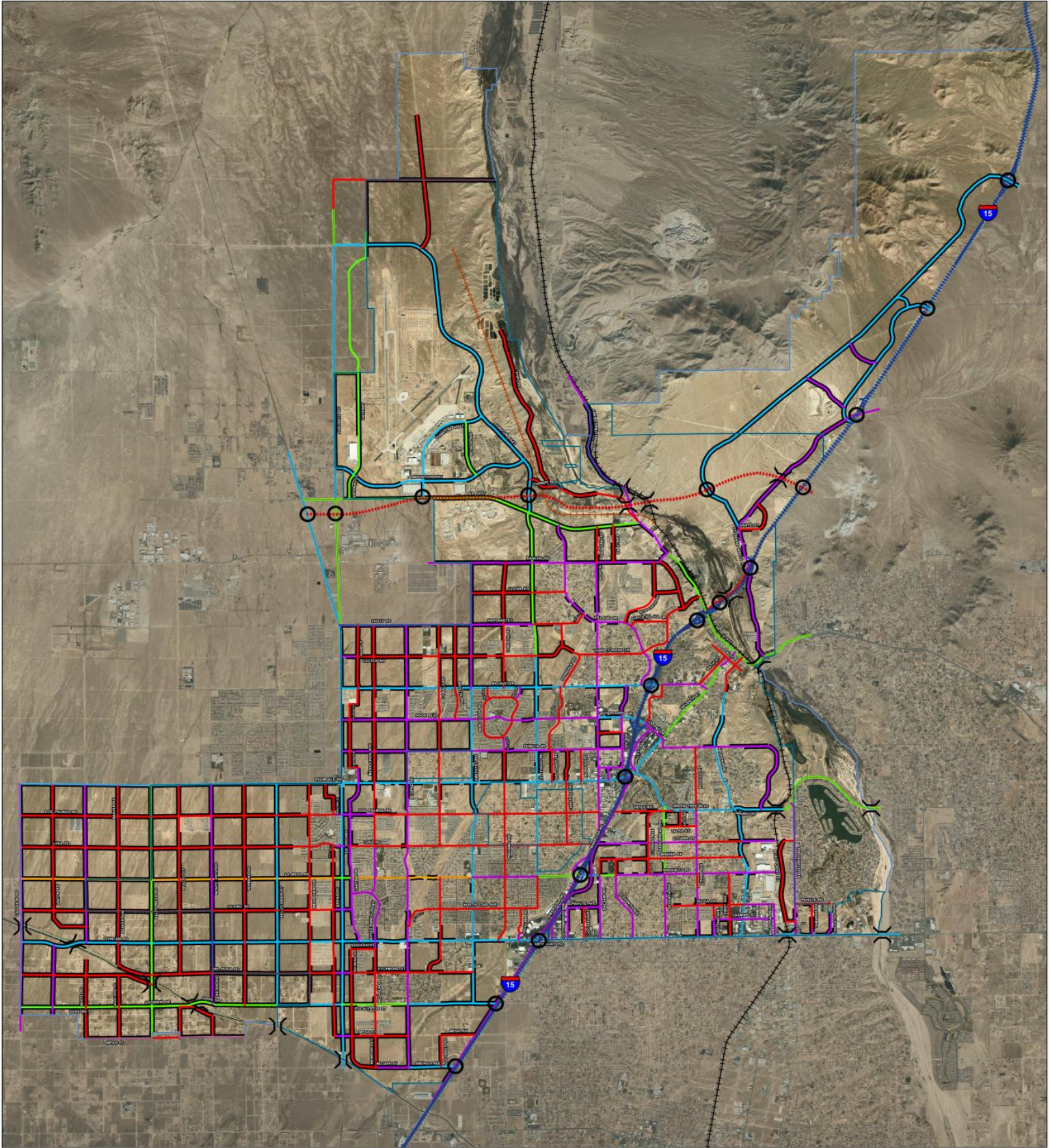
SUMMARY:

PARCEL A (GAS STATION)	= ± 2.1 AC.
RETAIL	= ± 3,500 S.F.
PARKING PROVIDED	= ± 38 SPACES
<hr/>	
PARCEL B (McDonald)	= ± 1.2 AC.
FAST FOOD	= ± 4,400 S.F.
PARKING REQ.	= 44 SPACES
PARKING PROVIDED	= ± 43 SPACES
<hr/>	
PARCEL C1 (RETAIL)	= ± 2.9 AC
PADS W/ DRIVE THRU	= ± 12,700 S.F.
<hr/>	
PAD E	= 6,200 SF
1,800 SF DRIVE-THRU (See delineated area)	
4,400 SF SHOPS	
<hr/>	
PAD F	= 3,500 SF
1,800 SF DRIVE-THRU (See delineated area)	
1,700 SF SHOPS	
<hr/>	
PAD H	= 3,000 SF
3,000 SF DRIVE-THRU (See delineated area)	
<hr/>	
PARKING PROVIDED	
DRIVE THRU	= ± 117 SPACES
RATIO	= 10/1000
<hr/>	
PARCEL C2 (RETAIL/ OFFICE)	= ± 2.6 AC
PADS AND SHOPS	= ± 23,000 S.F.
<hr/>	
PARCEL C3 (RETAIL/ OFFICE)	= ± 1.6 AC
RETAIL/OFFICE/MEDICAL	= ± 10,080 S.F.
<hr/>	
TOTAL	= ± 33,080 S.F.
PARKING PROVIDED	= ± 187 SPACES
OVERALL PARKING RATIO	= ± 5.7 /1000
<hr/>	
PARCEL D (RESIDENTIAL)	= ± 21.9 AC
DWELLING UNITS	= 438 UNITS
GROSS AREA	= 500,000 SF
AMENITY GROSS AREA	= 10,300 SF
PARKING REQ'D.	= 876
PARKING PROVIDED	= 876
<hr/>	
PARCEL E	= ± 3.3 AC
STORAGE / OFFICE	= ± 139,091 SF.
	= 10,000 SF.
<hr/>	
OFFICE PARKING RATIO	= 4/1000
PARKING PROVIDED	= ±45 SPACES

NOTE:
 (2) TWO UNITS WILL BECOME MAINTENANCE ROOMS

PROPOSED SITE PLAN- ALT
 SCALE: 1" = 50' -0"
 Conceptual Design Package

CITY OF VICTORVILLE - CIRCULATION MAP



Victorville City Boundary	I-15
Victorville Sphere of Influence	BNSF Rail
High Desert Corridor Freeway	City Rail
Interchange	Bridge

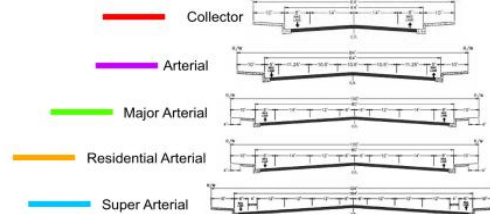


City of Victorville - Circulation Map
 City of Victorville
 Printed: February 13, 2018
 Contact: Matthew Pugh - Technology Div.

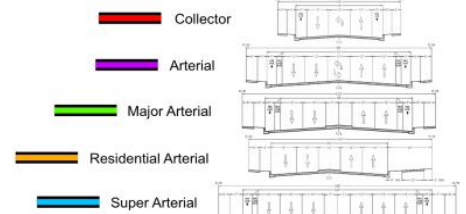


Disclaimer: This map is to be used for visual reference only. Sources are available upon request.

Retrofit Street Sections



Street Sections



*Where indicated, roadway improvements shall be completed to half-width per designed cross section for both Street Sections and Retrofit Street Sections

Historic Route 66

One of the original federal routes, Route 66 or Will Rogers Highway was established in 1926. Its original length of approximately 2,500 miles connected the cities of Chicago, Illinois and Los Angeles, California, traversing through the states of Missouri, Kansas, Oklahoma, Texas, New Mexico and Arizona. As a major migratory path west, especially during the Dust Bowl of the 1930s, it supported the economies of the communities through which it passed. These communities later fought to keep it alive when the new interstate freeway system began dominating the country's transportation network. This route was officially decommissioned after the interstate freeways began to define this country's surface transportation and segments of this route that were not replaced by interstate freeway alignments were designated as national scenic byways and renamed 'Historic Route 66' (Hist-66).

Today, from the southern limit of the City of Victorville, Hist-66 follows the current alignment of I-15 to the freeway's interchange with Palmdale Road (SR-18) / 7th Street. North of this interchange, Hist-66 follows the alignment of 7th Street to D Street. Continuing northeast on D Street it follows the National Trails Highway alignment into the community of Oro Grande on the northwestern edge of the City.

Roadway Classifications

There are several different types of roadway classifications maintained by the City of Victorville that range from two lane, undivided collectors to super arterials with six lanes and a positive separation (raised median). The City has developed design standards and specifications for fourteen different street classifications, which are illustrated by their standard cross-sections shown in **Figure Circ-3**, and described below.

The roadways are designated by their primary function and level of mobility. The typical roadway cross-sections illustrated in **Figure Circ-3** are general standards and in certain cases, where implementation of the standard street width may not be possible due to various constraints, such as right of way, existing development, etc., these may be modified. Median, shoulder, lane widths and other features may be modified to the non-desired widths but still provide the functionality and safety designated in standard roadways. The function of the street will still remain the same to serve the City's traffic demand.

Super Arterials

Super Arterials transport large volumes of intercity, intra-city, and regional traffic at higher speeds with limited access control points. Super arterials generally connect to freeways to distribute traffic to other facilities such as major and secondary arterials, and collector facilities serving the City and other regional networks. At a minimum, super arterials have a 124-foot wide right of way consisting of six travel lanes, two parking lanes, and may have a raised median up to twelve-feet wide. On-street parking, if permitted, is restricted to distances 300 feet or greater from the signalized intersections. This classification is modified in the SCLA Specific Plan area.

Super arterials can also have the lane configuration of six travel lanes; a center left turn lane and additional No. 4 lanes to accommodate right turn lanes at intersections and for right in / right out, merge in / merge out movement for commercial driveway access. This lane configuration requires a curb to curb 116 foot width and 136 foot wide right of way. At intersections, the super arterial can have a double left, three through lanes and a right turn lane. The lane configuration requires a centerline to curb of 64 width and centerline to right of way of 74 foot width.

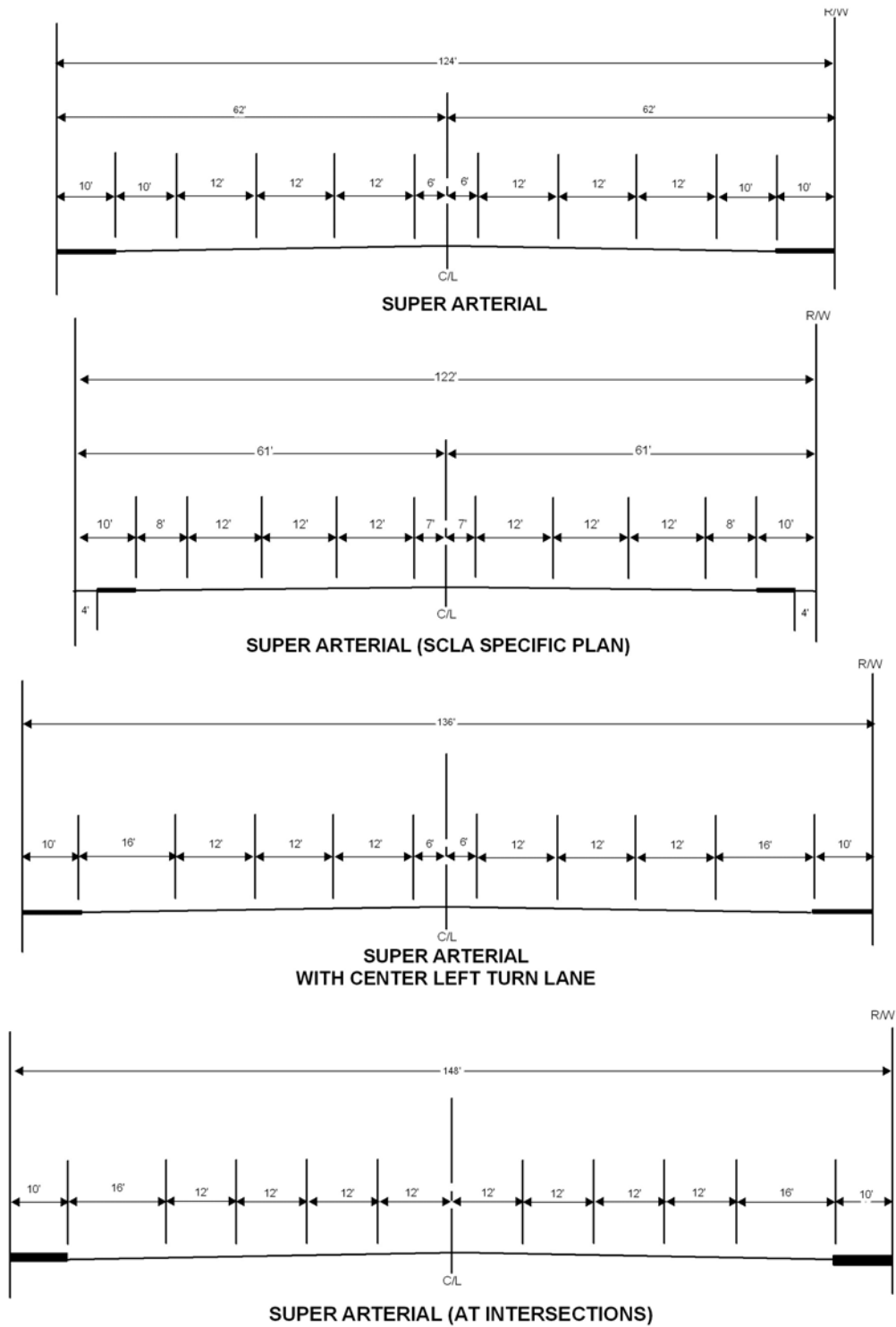


FIGURE Circ-3a: Roadway Classification Standards

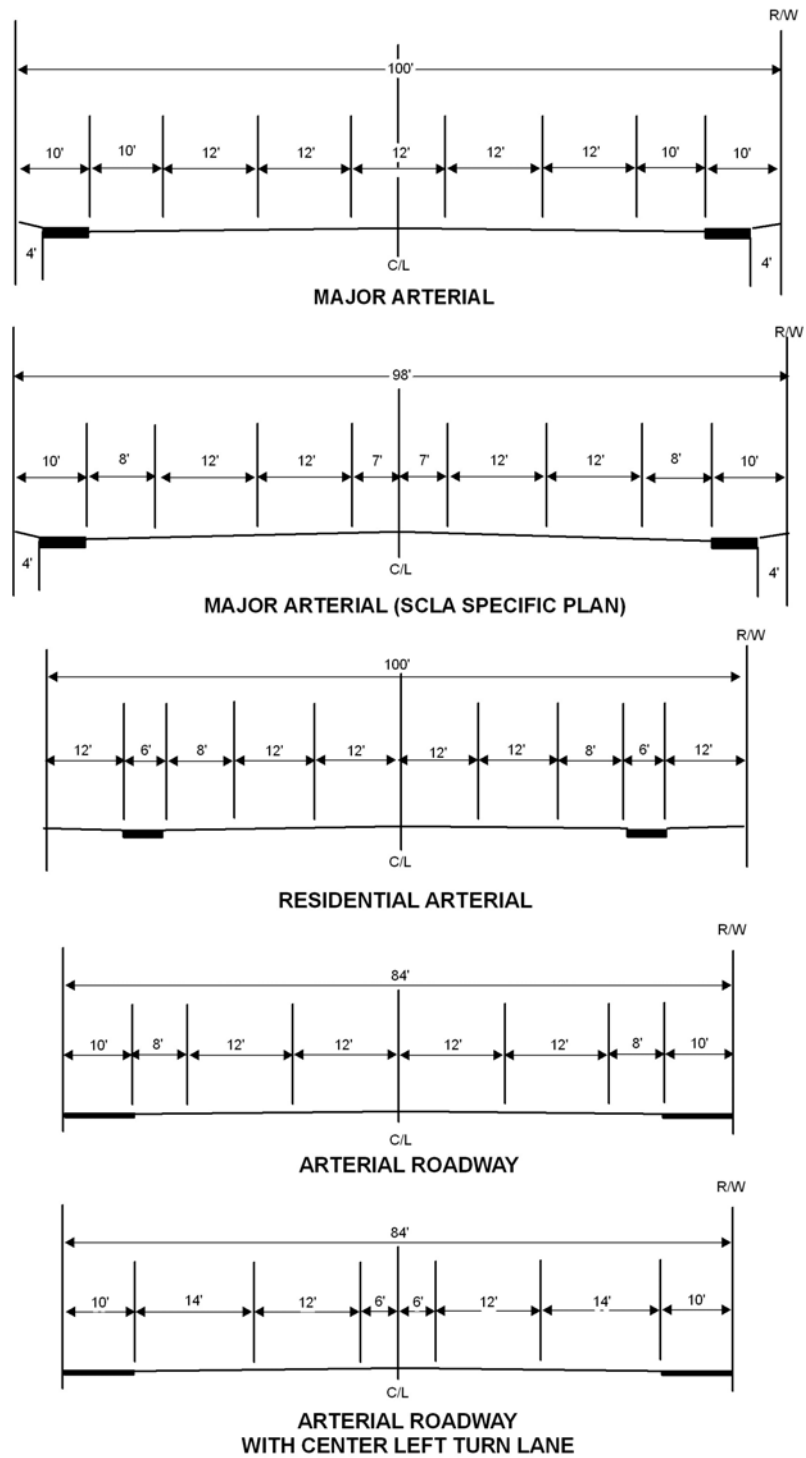


FIGURE Circ-3b: Roadway Classification Standards

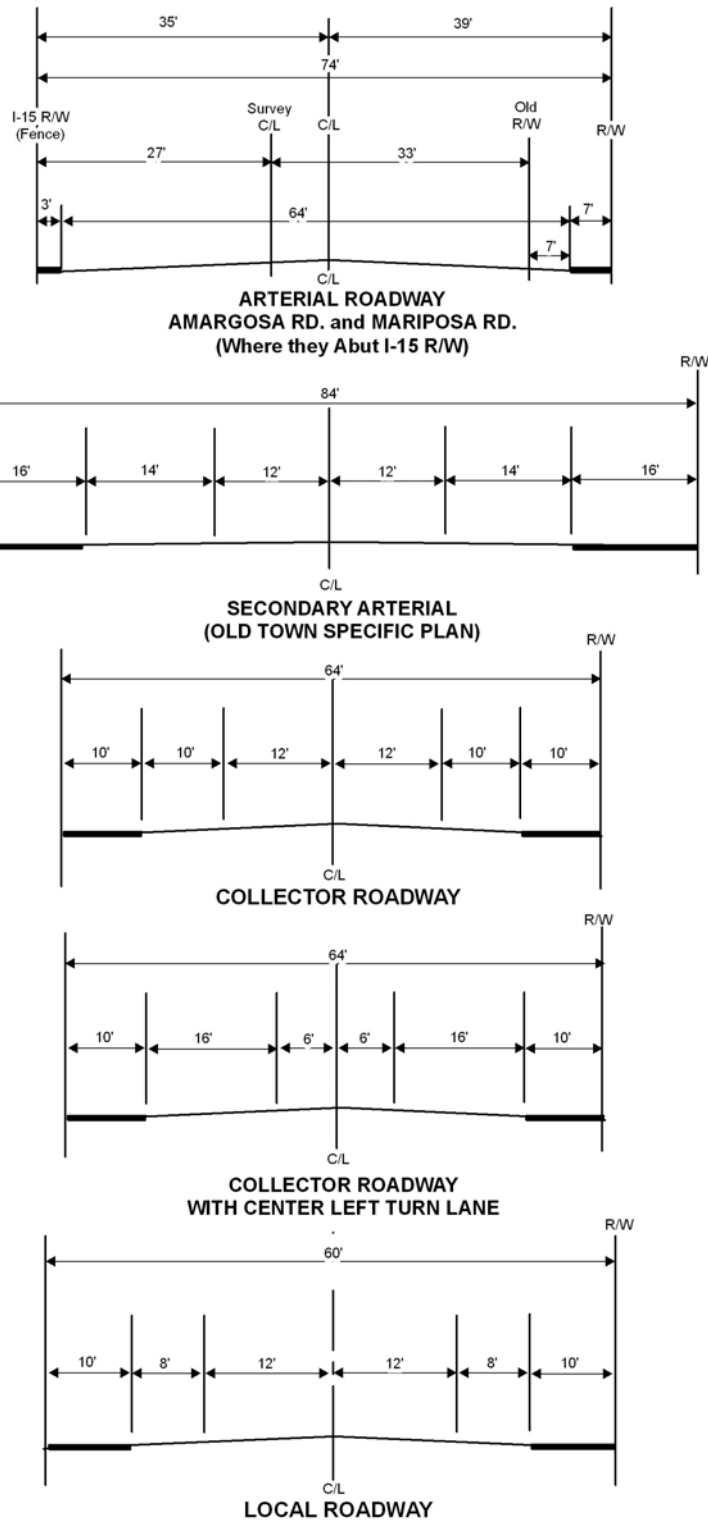


FIGURE Circ-3c: Roadway Classification Standards

Currently, this category includes Bear Valley Road east of Petaluma Road. The City's recently updated Circulation Map at build-out indicates that the full extent of Bear Valley Road, Palmdale Road, Mojave Drive, and US-395 are designated as Super Arterials.

Major Arterials

Major Arterials facilitate mobility of large volumes of intra-city traffic. These streets access freeways or super arterials and distribute traffic to secondary arterials or collector streets. Major Arterials have a 100-foot minimum right of way consisting of a minimum of four travel lanes, two parking lanes and a 12-foot wide, two-way left-turn median lane. Traffic signals are located at major intersections. Parking may be prohibited near intersections or in segments. Similar to the Super Arterials, this roadway is modified in the SCLA Specific Plan area. Existing major arterials in the Planning Area include: 7th Street, Amethyst Road, El Evado Road, Green Tree Boulevard, Hesperia Road, and La Mesa Road east of Amethyst Road

Residential Arterials

Residential Arterials transport large volumes of intra-city traffic to and from residential areas. These streets connect to major arterials, arterials, and collectors. Residential arterials have a minimum right of way of one hundred feet, four traffic lanes, and two eight-foot parking lanes. Traffic signals are located at major intersections. Parking may be prohibited near intersections or in segments. La Mesa Road west of Amethyst Road is the only designated Residential Arterial.

Arterials

Arterials serve the same function as Major Arterials, although serving relatively lower

traffic demands. The standard 84-foot right of way contains four travel lanes with a center left turn lane with parking prohibited. Alternatively, parking may be allowed without a center turn lane and may be prohibited near intersections or in segments. Left-turn and right-turn lanes are provided, as needed, at intersections. Some of the Arterials in Victorville include Amargosa Road, Eagle Ranch Parkway, Hook Boulevard, Mariposa Road, Mesa Linda Avenue, Topaz Road, Village Drive, and most of El Evado Road.

Secondary Arterials

Secondary Arterials are localized in the Old Town area, situated in the northeastern part of the City, bounded by I-15 in the west, Hesperia Road in the east, Mojave Drive/Verde Road in the south and to the north by E Street. The 84-foot R.O.W facilitates for wider sidewalks and four travel lanes. Exclusive parking and turning lanes (left and right) are not provided. 7th Street between Forrest Avenue and D Street is the only Secondary Arterial.

Collectors

Collectors are street that provide circulation within a defined geographic area and connect this area to intra-city traffic routes. Some motorists may use collectors as through routes, but the primary function of a collector is to connect local traffic to larger streets and to provide access to nearby destinations.

Collectors contain two travel lanes and two parking lanes with a 64-foot right of way. Alternatively, collectors may have two travel lanes and a center left turn lane with parking prohibited near intersections or in segments. Collector streets in the Planning Area include 1st Avenue, 9th Avenue, Cobalt Road, Cypress Avenue, Luna Road,

Pacoima Road, Reno Loop, Sycamore Street, and Tawney Ridge Lane.

Local Streets

Local Streets provide direct access to adjacent properties and transport local traffic from these properties to higher volume, higher speed facilities. In general, local streets are not intended to carry through traffic. The 60-foot right of way contains two traffic lanes and two parking lanes. Sidewalks are generally provided within a ten-foot, right of way. Most streets in residential neighborhoods are designed as Local Streets.

Modification of Design Standards in Specific Plans

The above street classification system may be modified for Specific Plans. For example, the SCLA Specific Plan specifies a slightly altered section for Super Arterials and Major Arterials. The Super Arterials in the airport area have a 122-foot wide right of way, with a continuous 14-foot wide left turn pocket and narrower parking lanes. Similarly, Major Arterials have a 98-foot right of way, continuous 14-foot wide left turn pocket and narrower parking lanes. Despite varying standards, functionality of the right of way does not deviate from the respective classification hierarchy.

Roadway Components

Super Arterial Components

Traffic Signals – Super Arterials

Locations for new traffic signals shall be at a minimum of one-half mile spacing, or at collector street classifications or above. Proposed traffic signal locations shall be justified by a traffic study and are subject to the approval of the City Engineer.

Driveway Access – Super Arterials

Residential driveway access is not allowed to a super arterial. Commercial driveway access, if allowed, should be as far away from a street intersection or other driveways as feasible. Shared driveway access with other parcels or other developments may be required. If a commercial driveway access is allowed, an additional number 4, merge in / merge out, lane is required. New driveway access shall allow right in / right out access only. Left turns in and out shall be prohibited. The design of the access control, whether raised median or other controls, is subject to the approval of the City Engineer.

Street Connections – Super Arterials

New street connections to super arterials, including Bear Valley Road, Mojave Drive, Palmdale Road and US-395 will be restricted. Only streets classified as collector or higher may connect to a super arterial. No new local street connections shall be allowed.

Major Arterial, Arterial and Collector Street Components

Traffic Signals – Major Arterial, Arterial and Collector Street

Proposed traffic signals locations shall be justified by a traffic study and are subject to the approval of the City Engineer.

Driveway Access – Major Arterial, Arterial and Collector Street

Residential driveway access is not allowed to new segments or for new subdivisions fronting on existing segments. For infill single family homes on existing segments, forward egress for residential driveways is required by either a standard circular or hammerhead driveway. Commercial driveway access should be as far away from a street intersection or other driveways as feasible,

2035 Roadway Classification

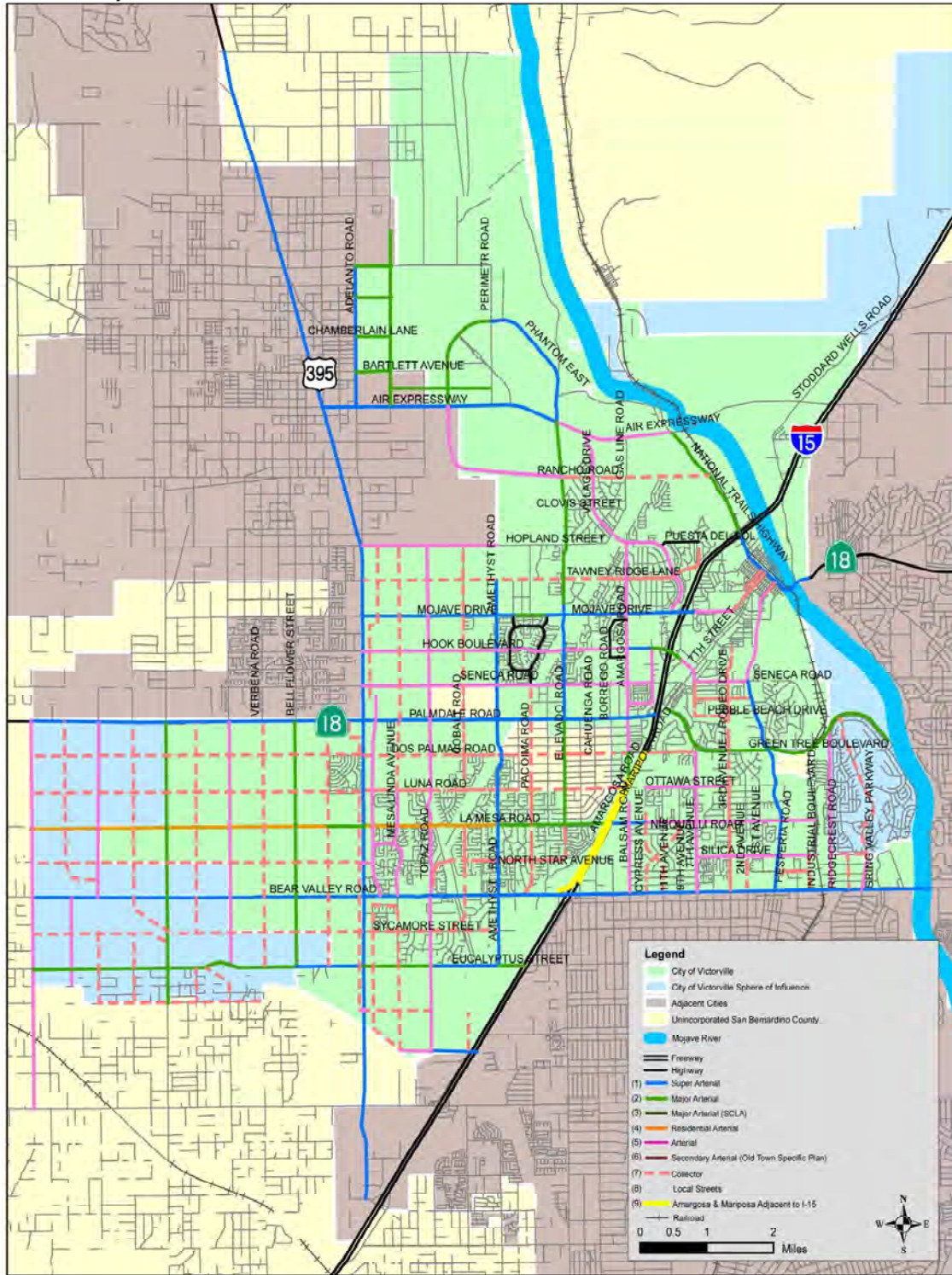


FIGURE Circ-6: 2035 Vehicular Circulation System

City of Victorville General Plan Circulation Map

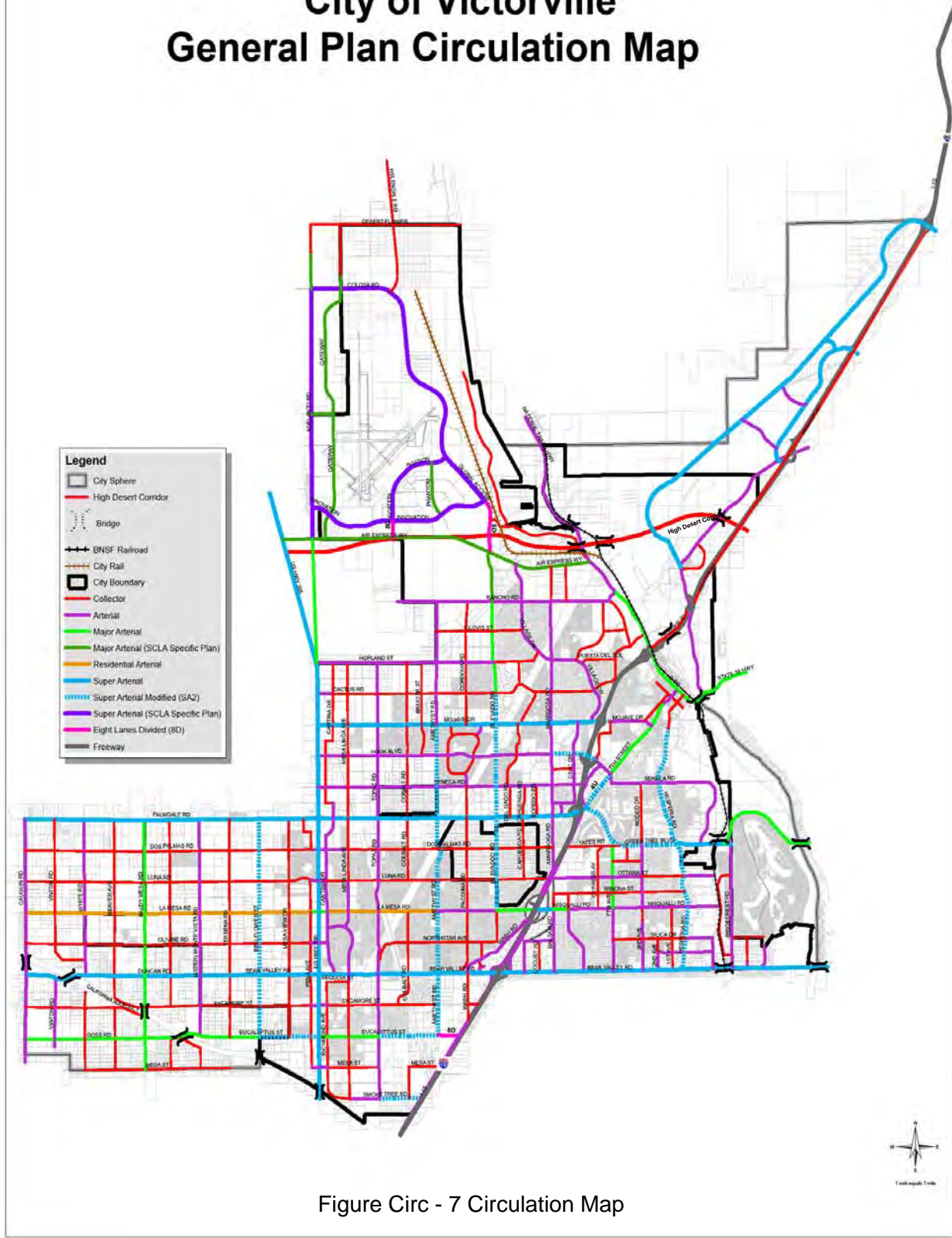


Figure Circ - 7 Circulation Map

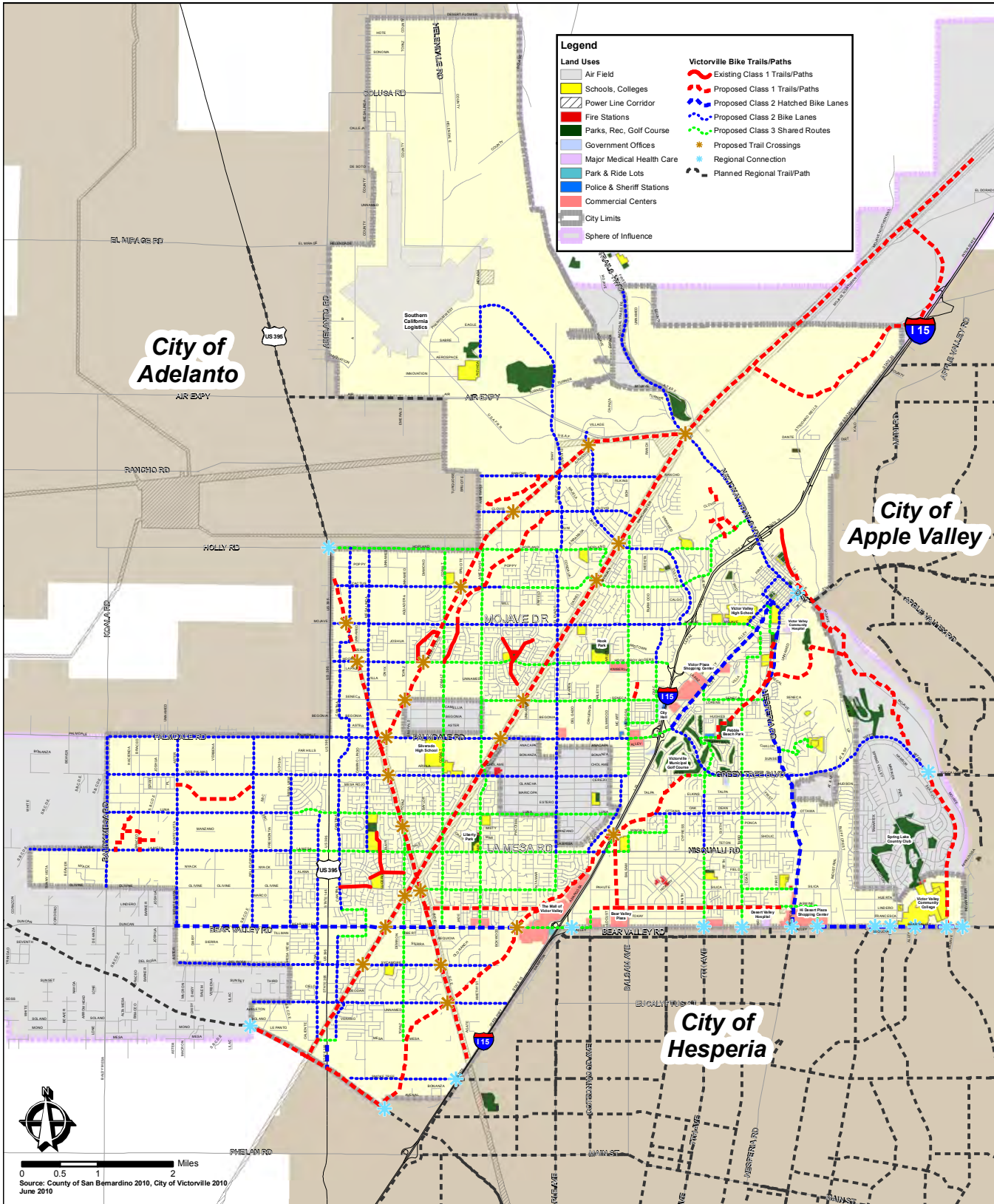


Exhibit 6.1
Non-Motorized Transportation Plan Map

APPENDIX B

BASELINE TRAFFIC COUNTS (EXISTING YEAR)

City of Victorville
 N/S: Second Avenue
 E/W: Silica Drive
 Weather: Clear

File Name : 08_VIC_Second_Silica AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue (dirt) Southbound				Silica Drive Westbound				Second Avenue Northbound				Silica 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	0	0	0	0	1	15	0	16	5	0	4	9	0	53	25	78	103
07:15 AM	0	0	0	0	5	23	0	28	11	0	3	14	0	73	30	103	145
07:30 AM	0	0	0	0	7	49	0	56	11	0	4	15	0	77	40	117	188
07:45 AM	0	0	0	0	6	41	0	47	19	0	8	27	0	67	45	112	186
Total	0	0	0	0	19	128	0	147	46	0	19	65	0	270	140	410	622
08:00 AM	0	0	0	0	6	25	0	31	13	0	5	18	0	63	36	99	148
08:15 AM	0	0	0	0	5	38	0	43	20	0	7	27	0	37	37	74	144
08:30 AM	0	0	0	0	2	17	0	19	24	0	3	27	0	43	35	78	124
08:45 AM	0	0	0	0	3	28	0	31	18	0	4	22	0	42	27	69	122
Total	0	0	0	0	16	108	0	124	75	0	19	94	0	185	135	320	538
Grand Total	0	0	0	0	35	236	0	271	121	0	38	159	0	455	275	730	1160
Apprch %	0	0	0		12.9	87.1	0		76.1	0	23.9		0	62.3	37.7		
Total %	0	0	0	0	3	20.3	0	23.4	10.4	0	3.3	13.7	0	39.2	23.7	62.9	

Start Time	Second Avenue (dirt) Southbound				Silica Drive Westbound				Second Avenue Northbound				Silica 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 07:15 AM																	
07:15 AM	0	0	0	0	5	23	0	28	11	0	3	14	0	73	30	103	145
07:30 AM	0	0	0	0	7	49	0	56	11	0	4	15	0	77	40	117	188
07:45 AM	0	0	0	0	6	41	0	47	19	0	8	27	0	67	45	112	186
08:00 AM	0	0	0	0	6	25	0	31	13	0	5	18	0	63	36	99	148
Total Volume	0	0	0	0	24	138	0	162	54	0	20	74	0	280	151	431	667
% App. Total	0	0	0		14.8	85.2	0		73	0	27		0	65	35		
PHF	.000	.000	.000	.000	.857	.704	.000	.723	.711	.000	.625	.685	.000	.909	.839	.921	.887

City of Victorville
 N/S: Second Avenue
 E/W: Silica Drive
 Weather: Clear

File Name : 08_VIC_Second_Silica PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue (dirt) Southbound				Silica Drive Westbound				Second Avenue Northbound				Silica 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	0	0	0	0	7	48	0	55	41	0	10	51	0	34	24	58	164
04:15 PM	0	0	0	0	2	35	0	37	33	0	2	35	0	35	20	55	127
04:30 PM	0	0	0	0	5	43	0	48	39	0	5	44	0	38	27	65	157
04:45 PM	0	0	0	0	4	34	0	38	30	0	5	35	0	32	20	52	125
Total	0	0	0	0	18	160	0	178	143	0	22	165	0	139	91	230	573
05:00 PM	0	0	0	0	10	46	0	56	56	0	8	64	0	50	25	75	195
05:15 PM	0	0	0	0	7	48	0	55	32	0	4	36	0	30	26	56	147
05:30 PM	0	0	0	0	4	53	0	57	30	0	3	33	0	32	20	52	142
05:45 PM	0	0	0	0	2	22	0	24	25	0	1	26	0	24	18	42	92
Total	0	0	0	0	23	169	0	192	143	0	16	159	0	136	89	225	576
Grand Total	0	0	0	0	41	329	0	370	286	0	38	324	0	275	180	455	1149
Apprch %	0	0	0		11.1	88.9	0		88.3	0	11.7		0	60.4	39.6		
Total %	0	0	0	0	3.6	28.6	0	32.2	24.9	0	3.3	28.2	0	23.9	15.7	39.6	

Start Time	Second Avenue (dirt) Southbound				Silica Drive Westbound				Second Avenue Northbound				Silica 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 04:30 PM																	
04:30 PM	0	0	0	0	5	43	0	48	39	0	5	44	0	38	27	65	157
04:45 PM	0	0	0	0	4	34	0	38	30	0	5	35	0	32	20	52	125
05:00 PM	0	0	0	0	10	46	0	56	56	0	8	64	0	50	25	75	195
05:15 PM	0	0	0	0	7	48	0	55	32	0	4	36	0	30	26	56	147
Total Volume	0	0	0	0	26	171	0	197	157	0	22	179	0	150	98	248	624
% App. Total	0	0	0		13.2	86.8	0		87.7	0	12.3		0	60.5	39.5		
PHF	.000	.000	.000	.000	.650	.891	.000	.879	.701	.000	.688	.699	.000	.750	.907	.827	.800

City of Victorville
 N/S: Third Avenue
 E/W: Silica Drive
 Weather: Clear

File Name : 09_VIC_Third_Silica AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Third Avenue Southbound				Silica Drive Westbound				Third Avenue Northbound				Silica 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	52	3	0	55	1	9	10	20	2	6	4	12	3	19	2	24	111
07:15 AM	66	3	3	72	3	18	11	32	3	6	2	11	3	38	2	43	158
07:30 AM	67	2	8	77	0	35	22	57	3	8	2	13	5	39	5	49	196
07:45 AM	86	12	8	106	2	31	27	60	2	7	1	10	5	29	2	36	212
Total	271	20	19	310	6	93	70	169	10	27	9	46	16	125	11	152	677
08:00 AM	70	3	3	76	0	9	27	36	0	5	0	5	2	28	0	30	147
08:15 AM	40	4	7	51	0	15	43	58	1	9	1	11	6	27	3	36	156
08:30 AM	43	4	13	60	1	11	28	40	2	2	1	5	29	41	5	75	180
08:45 AM	40	5	4	49	0	24	26	50	1	2	2	5	5	27	0	32	136
Total	193	16	27	236	1	59	124	184	4	18	4	26	42	123	8	173	619
Grand Total	464	36	46	546	7	152	194	353	14	45	13	72	58	248	19	325	1296
Apprch %	85	6.6	8.4		2	43.1	55		19.4	62.5	18.1		17.8	76.3	5.8		
Total %	35.8	2.8	3.5	42.1	0.5	11.7	15	27.2	1.1	3.5	1	5.6	4.5	19.1	1.5	25.1	

Start Time	Third Avenue Southbound				Silica Drive Westbound				Third Avenue Northbound				Silica 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 07:15 AM																	
07:15 AM	66	3	3	72	3	18	11	32	3	6	2	11	3	38	2	43	158
07:30 AM	67	2	8	77	0	35	22	57	3	8	2	13	5	39	5	49	196
07:45 AM	86	12	8	106	2	31	27	60	2	7	1	10	5	29	2	36	212
08:00 AM	70	3	3	76	0	9	27	36	0	5	0	5	2	28	0	30	147
Total Volume	289	20	22	331	5	93	87	185	8	26	5	39	15	134	9	158	713
% App. Total	87.3	6	6.6		2.7	50.3	47		20.5	66.7	12.8		9.5	84.8	5.7		
PHF	.840	.417	.688	.781	.417	.664	.806	.771	.667	.813	.625	.750	.750	.859	.450	.806	.841

City of Victorville
 N/S: Third Avenue
 E/W: Silica Drive
 Weather: Clear

File Name : 09_VIC_Third_Silica PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Third Avenue Southbound				Silica Drive Westbound				Third Avenue Northbound				Silica 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	39	5	9	53	3	38	42	83	2	7	1	10	8	19	2	29	175
04:15 PM	31	9	17	57	1	27	39	67	5	3	1	9	8	24	1	33	166
04:30 PM	37	7	15	59	0	36	42	78	2	7	1	10	9	22	1	32	179
04:45 PM	26	12	10	48	2	40	23	65	3	4	1	8	12	28	0	40	161
Total	133	33	51	217	6	141	146	293	12	21	4	37	37	93	4	134	681
05:00 PM	51	7	12	70	1	52	52	105	3	6	0	9	8	23	2	33	217
05:15 PM	28	14	10	52	1	35	33	69	3	4	1	8	9	30	4	43	172
05:30 PM	36	5	6	47	2	45	37	84	2	4	0	6	4	19	4	27	164
05:45 PM	25	7	7	39	0	27	21	48	1	0	0	1	4	15	3	22	110
Total	140	33	35	208	4	159	143	306	9	14	1	24	25	87	13	125	663
Grand Total	273	66	86	425	10	300	289	599	21	35	5	61	62	180	17	259	1344
Apprch %	64.2	15.5	20.2		1.7	50.1	48.2		34.4	57.4	8.2		23.9	69.5	6.6		
Total %	20.3	4.9	6.4	31.6	0.7	22.3	21.5	44.6	1.6	2.6	0.4	4.5	4.6	13.4	1.3	19.3	

Start Time	Third Avenue Southbound				Silica Drive Westbound				Third Avenue Northbound				Silica 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 04:30 PM																	
04:30 PM	37	7	15	59	0	36	42	78	2	7	1	10	9	22	1	32	179
04:45 PM	26	12	10	48	2	40	23	65	3	4	1	8	12	28	0	40	161
05:00 PM	51	7	12	70	1	52	52	105	3	6	0	9	8	23	2	33	217
05:15 PM	28	14	10	52	1	35	33	69	3	4	1	8	9	30	4	43	172
Total Volume	142	40	47	229	4	163	150	317	11	21	3	35	38	103	7	148	729
% App. Total	62	17.5	20.5		1.3	51.4	47.3		31.4	60	8.6		25.7	69.6	4.7		
PHF	.696	.714	.783	.818	.500	.784	.721	.755	.917	.750	.750	.875	.792	.858	.438	.860	.840

City of Victorville
 N/S: Third Avenue
 E/W: Sequoia Street
 Weather: Clear

File Name : 10_VIC_Third_Sequoia AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Third Avenue Southbound				Sequoia Street Westbound				Third Avenue Northbound				Sequoia Street 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	6	2	8	5	5	0	10	3	9	1	13	0	9	2	11	42
07:15 AM	1	6	1	8	0	5	0	5	8	5	4	17	2	5	2	9	39
07:30 AM	1	13	2	16	1	9	0	10	10	17	8	35	1	3	5	9	70
07:45 AM	2	18	1	21	4	8	0	12	9	22	4	35	2	11	4	17	85
Total	4	43	6	53	10	27	0	37	30	53	17	100	5	28	13	46	236
08:00 AM	2	11	1	14	3	5	4	12	11	17	5	33	2	11	1	14	73
08:15 AM	0	7	2	9	0	13	1	14	8	22	5	35	3	10	2	15	73
08:30 AM	0	9	0	9	5	11	0	16	9	9	2	20	1	11	4	16	61
08:45 AM	0	13	2	15	2	11	0	13	11	20	2	33	4	6	4	14	75
Total	2	40	5	47	10	40	5	55	39	68	14	121	10	38	11	59	282
Grand Total	6	83	11	100	20	67	5	92	69	121	31	221	15	66	24	105	518
Apprch %	6	83	11		21.7	72.8	5.4		31.2	54.8	14		14.3	62.9	22.9		
Total %	1.2	16	2.1	19.3	3.9	12.9	1	17.8	13.3	23.4	6	42.7	2.9	12.7	4.6	20.3	

Start Time	Third Avenue Southbound				Sequoia Street Westbound				Third Avenue Northbound				Sequoia Street 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	1	13	2	16	1	9	0	10	10	17	8	35	1	3	5	9	70
07:45 AM	2	18	1	21	4	8	0	12	9	22	4	35	2	11	4	17	85
08:00 AM	2	11	1	14	3	5	4	12	11	17	5	33	2	11	1	14	73
08:15 AM	0	7	2	9	0	13	1	14	8	22	5	35	3	10	2	15	73
Total Volume	5	49	6	60	8	35	5	48	38	78	22	138	8	35	12	55	301
% App. Total	8.3	81.7	10		16.7	72.9	10.4		27.5	56.5	15.9		14.5	63.6	21.8		
PHF	.625	.681	.750	.714	.500	.673	.313	.857	.864	.886	.688	.986	.667	.795	.600	.809	.885

City of Victorville
 N/S: Third Avenue
 E/W: Sequoia Street
 Weather: Clear

File Name : 10_VIC_Third_Sequoia PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Third Avenue Southbound				Sequoia Street Westbound				Third Avenue Northbound				Sequoia Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	13	6	20	3	17	2	22	8	21	1	30	3	20	4	27	99
04:15 PM	3	20	3	26	6	25	3	34	11	15	3	29	0	16	8	24	113
04:30 PM	2	24	1	27	2	20	0	22	12	14	4	30	4	13	4	21	100
04:45 PM	3	20	5	28	4	19	3	26	13	19	2	34	4	15	2	21	109
Total	9	77	15	101	15	81	8	104	44	69	10	123	11	64	18	93	421
05:00 PM	0	27	6	33	7	24	1	32	10	20	3	33	3	11	4	18	116
05:15 PM	1	22	4	27	4	14	0	18	10	19	4	33	1	16	7	24	102
05:30 PM	2	23	1	26	2	21	0	23	11	8	3	22	0	10	3	13	84
05:45 PM	0	15	4	19	2	17	1	20	11	10	1	22	0	4	4	8	69
Total	3	87	15	105	15	76	2	93	42	57	11	110	4	41	18	63	371
Grand Total	12	164	30	206	30	157	10	197	86	126	21	233	15	105	36	156	792
Apprch %	5.8	79.6	14.6		15.2	79.7	5.1		36.9	54.1	9		9.6	67.3	23.1		
Total %	1.5	20.7	3.8	26	3.8	19.8	1.3	24.9	10.9	15.9	2.7	29.4	1.9	13.3	4.5	19.7	

Start Time	Third Avenue Southbound				Sequoia Street Westbound				Third Avenue Northbound				Sequoia Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	3	20	3	26	6	25	3	34	11	15	3	29	0	16	8	24	113
04:30 PM	2	24	1	27	2	20	0	22	12	14	4	30	4	13	4	21	100
04:45 PM	3	20	5	28	4	19	3	26	13	19	2	34	4	15	2	21	109
05:00 PM	0	27	6	33	7	24	1	32	10	20	3	33	3	11	4	18	116
Total Volume	8	91	15	114	19	88	7	114	46	68	12	126	11	55	18	84	438
% App. Total	7	79.8	13.2		16.7	77.2	6.1		36.5	54	9.5		13.1	65.5	21.4		
PHF	.667	.843	.625	.864	.679	.880	.583	.838	.885	.850	.750	.926	.688	.859	.563	.875	.944

City of Victorville
 N/S: Second Avenue
 E/W: Sequoia Street
 Weather: Clear

File Name : 11_VIC_Second_Sequoia AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue Southbound				Sequoia Street Westbound				Second Avenue Northbound				Sequoia Street 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	2	3	5	0	5	1	6	0	3	0	3	5	6	0	11	25
07:15 AM	3	4	2	9	1	6	2	9	0	4	1	5	4	5	0	9	32
07:30 AM	0	2	3	5	1	8	4	13	0	9	0	9	10	5	0	15	42
07:45 AM	1	3	3	7	0	6	3	9	1	6	1	8	9	10	1	20	44
Total	4	11	11	26	2	25	10	37	1	22	2	25	28	26	1	55	143
08:00 AM	3	1	3	7	2	8	3	13	0	3	0	3	5	11	0	16	39
08:15 AM	3	2	2	7	0	10	5	15	0	3	0	3	3	6	0	9	34
08:30 AM	1	1	5	7	0	12	1	13	0	6	1	7	9	12	0	21	48
08:45 AM	1	2	4	7	0	6	6	12	0	3	0	3	3	6	0	9	31
Total	8	6	14	28	2	36	15	53	0	15	1	16	20	35	0	55	152
Grand Total	12	17	25	54	4	61	25	90	1	37	3	41	48	61	1	110	295
Apprch %	22.2	31.5	46.3		4.4	67.8	27.8		2.4	90.2	7.3		43.6	55.5	0.9		
Total %	4.1	5.8	8.5	18.3	1.4	20.7	8.5	30.5	0.3	12.5	1	13.9	16.3	20.7	0.3	37.3	

Start Time	Second Avenue Southbound				Sequoia Street Westbound				Second Avenue Northbound				Sequoia Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	1	3	3	7	0	6	3	9	1	6	1	8	9	10	1	20	44
08:00 AM	3	1	3	7	2	8	3	13	0	3	0	3	5	11	0	16	39
08:15 AM	3	2	2	7	0	10	5	15	0	3	0	3	3	6	0	9	34
08:30 AM	1	1	5	7	0	12	1	13	0	6	1	7	9	12	0	21	48
Total Volume	8	7	13	28	2	36	12	50	1	18	2	21	26	39	1	66	165
% App. Total	28.6	25	46.4		4	72	24		4.8	85.7	9.5		39.4	59.1	1.5		
PHF	.667	.583	.650	1.00	.250	.750	.600	.833	.250	.750	.500	.656	.722	.813	.250	.786	.859

City of Victorville
 N/S: Second Avenue
 E/W: Sequoia Street
 Weather: Clear

File Name : 11_VIC_Second_Sequoia PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue Southbound				Sequoia Street Westbound				Second Avenue Northbound				Sequoia Street 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	7	9	8	24	0	13	5	18	0	7	0	7	2	17	1	20	69
04:15 PM	4	8	8	20	0	23	2	25	0	7	0	7	7	13	0	20	72
04:30 PM	1	10	4	15	1	21	0	22	0	6	0	6	3	16	1	20	63
04:45 PM	5	11	6	22	1	19	7	27	0	3	0	3	7	14	0	21	73
Total	17	38	26	81	2	76	14	92	0	23	0	23	19	60	2	81	277
05:00 PM	2	11	11	24	0	24	3	27	1	1	1	3	4	11	0	15	69
05:15 PM	5	9	8	22	0	10	4	14	0	7	0	7	7	16	0	23	66
05:30 PM	2	9	5	16	0	19	3	22	0	5	0	5	4	11	0	15	58
05:45 PM	7	4	3	14	0	15	1	16	0	3	0	3	2	3	0	5	38
Total	16	33	27	76	0	68	11	79	1	16	1	18	17	41	0	58	231
Grand Total	33	71	53	157	2	144	25	171	1	39	1	41	36	101	2	139	508
Apprch %	21	45.2	33.8		1.2	84.2	14.6		2.4	95.1	2.4		25.9	72.7	1.4		
Total %	6.5	14	10.4	30.9	0.4	28.3	4.9	33.7	0.2	7.7	0.2	8.1	7.1	19.9	0.4	27.4	

Start Time	Second Avenue Southbound				Sequoia Street Westbound				Second Avenue Northbound				Sequoia Street 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	7	9	8	24	0	13	5	18	0	7	0	7	2	17	1	20	69
04:15 PM	4	8	8	20	0	23	2	25	0	7	0	7	7	13	0	20	72
04:30 PM	1	10	4	15	1	21	0	22	0	6	0	6	3	16	1	20	63
04:45 PM	5	11	6	22	1	19	7	27	0	3	0	3	7	14	0	21	73
Total Volume	17	38	26	81	2	76	14	92	0	23	0	23	19	60	2	81	277
% App. Total	21	46.9	32.1		2.2	82.6	15.2		0	100	0		23.5	74.1	2.5		
PHF	.607	.864	.813	.844	.500	.826	.500	.852	.000	.821	.000	.821	.679	.882	.500	.964	.949

City of Victorville
 N/S: Ridgecrest Road
 E/W: Bear Valley Road
 Weather: Clear

File Name : VIC_Ridgecrest_Bear Valley AM
 Site Code : 99919745
 Start Date : 10/29/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley 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	26	0	194	220	3	338	5	346	2	2	1	5	70	264	1	335	906
07:15 AM	17	1	246	264	0	394	5	399	2	0	3	5	66	312	1	379	1047
07:30 AM	21	0	224	245	2	395	8	405	0	0	2	2	73	471	2	546	1198
07:45 AM	32	4	251	287	4	488	6	498	3	1	1	5	115	633	8	756	1546
Total	96	5	915	1016	9	1615	24	1648	7	3	7	17	324	1680	12	2016	4697
08:00 AM	16	2	234	252	5	439	9	453	3	0	3	6	109	488	6	603	1314
08:15 AM	23	0	263	286	0	411	10	421	2	3	2	7	106	500	5	611	1325
08:30 AM	22	0	251	273	3	430	10	443	3	1	3	7	105	440	4	549	1272
08:45 AM	17	1	266	284	5	500	14	519	2	1	5	8	121	488	5	614	1425
Total	78	3	1014	1095	13	1780	43	1836	10	5	13	28	441	1916	20	2377	5336
Grand Total	174	8	1929	2111	22	3395	67	3484	17	8	20	45	765	3596	32	4393	10033
Apprch %	8.2	0.4	91.4		0.6	97.4	1.9		37.8	17.8	44.4		17.4	81.9	0.7		
Total %	1.7	0.1	19.2	21	0.2	33.8	0.7	34.7	0.2	0.1	0.2	0.4	7.6	35.8	0.3	43.8	

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley 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 07:45 AM																	
07:45 AM	32	4	251	287	4	488	6	498	3	1	1	5	115	633	8	756	1546
08:00 AM	16	2	234	252	5	439	9	453	3	0	3	6	109	488	6	603	1314
08:15 AM	23	0	263	286	0	411	10	421	2	3	2	7	106	500	5	611	1325
08:30 AM	22	0	251	273	3	430	10	443	3	1	3	7	105	440	4	549	1272
Total Volume	93	6	999	1098	12	1768	35	1815	11	5	9	25	435	2061	23	2519	5457
% App. Total	8.5	0.5	91		0.7	97.4	1.9		44	20	36		17.3	81.8	0.9		
PHF	.727	.375	.950	.956	.600	.906	.875	.911	.917	.417	.750	.893	.946	.814	.719	.833	.882

City of Victorville
 N/S: Ridgecrest Road
 E/W: Bear Valley Road
 Weather: Clear

File Name : VIC_Ridgecrest_Bear Valley PM
 Site Code : 99919745
 Start Date : 10/29/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley 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	14	0	269	283	2	447	8	457	4	2	3	9	155	612	3	770	1519
04:15 PM	20	0	208	228	1	479	6	486	4	0	2	6	159	549	0	708	1428
04:30 PM	25	1	191	217	0	471	11	482	3	0	0	3	163	618	4	785	1487
04:45 PM	20	0	170	190	2	420	8	430	4	1	2	7	171	589	3	763	1390
Total	79	1	838	918	5	1817	33	1855	15	3	7	25	648	2368	10	3026	5824
05:00 PM	17	0	182	199	0	458	16	474	10	3	5	18	158	685	1	844	1535
05:15 PM	24	0	169	193	1	506	4	511	4	1	2	7	164	721	1	886	1597
05:30 PM	18	0	149	167	1	446	6	453	1	4	1	6	168	655	5	828	1454
05:45 PM	20	0	143	163	0	411	12	423	0	2	0	2	178	628	2	808	1396
Total	79	0	643	722	2	1821	38	1861	15	10	8	33	668	2689	9	3366	5982
Grand Total	158	1	1481	1640	7	3638	71	3716	30	13	15	58	1316	5057	19	6392	11806
Apprch %	9.6	0.1	90.3		0.2	97.9	1.9		51.7	22.4	25.9		20.6	79.1	0.3		
Total %	1.3	0	12.5	13.9	0.1	30.8	0.6	31.5	0.3	0.1	0.1	0.5	11.1	42.8	0.2	54.1	

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley 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 04:30 PM																	
04:30 PM	25	1	191	217	0	471	11	482	3	0	0	3	163	618	4	785	1487
04:45 PM	20	0	170	190	2	420	8	430	4	1	2	7	171	589	3	763	1390
05:00 PM	17	0	182	199	0	458	16	474	10	3	5	18	158	685	1	844	1535
05:15 PM	24	0	169	193	1	506	4	511	4	1	2	7	164	721	1	886	1597
Total Volume	86	1	712	799	3	1855	39	1897	21	5	9	35	656	2613	9	3278	6009
% App. Total	10.8	0.1	89.1		0.2	97.8	2.1		60	14.3	25.7		20	79.7	0.3		
PHF	.860	.250	.932	.921	.375	.917	.609	.928	.525	.417	.450	.486	.959	.906	.563	.925	.941

City of Victorville
 N/S: I-15 Southbound Ramps
 E/W: Bear Valley Road
 Weather: Clear

File Name : 01_VIC_15S_Bear Valley AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	I-15 Southbound Ramps Southbound				Bear Valley Road Westbound				I-15 Southbound On Ramp Northbound				Bear Valley 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	46	0	31	77	0	182	131	313	0	0	0	0	0	211	76	287	677
07:15 AM	40	0	26	66	0	144	135	279	0	0	0	0	0	258	73	331	676
07:30 AM	53	0	30	83	0	182	93	275	0	0	0	0	0	301	65	366	724
07:45 AM	43	0	44	87	0	183	119	302	0	0	0	0	0	301	66	367	756
Total	182	0	131	313	0	691	478	1169	0	0	0	0	0	1071	280	1351	2833
08:00 AM	45	0	28	73	0	209	126	335	0	0	0	0	0	268	48	316	724
08:15 AM	51	0	32	83	0	215	121	336	0	0	0	0	0	269	59	328	747
08:30 AM	53	0	39	92	0	239	113	352	0	0	0	0	0	246	61	307	751
08:45 AM	46	0	45	91	0	239	126	365	0	0	0	0	0	247	67	314	770
Total	195	0	144	339	0	902	486	1388	0	0	0	0	0	1030	235	1265	2992
Grand Total	377	0	275	652	0	1593	964	2557	0	0	0	0	0	2101	515	2616	5825
Apprch %	57.8	0	42.2		0	62.3	37.7		0	0	0		0	80.3	19.7		
Total %	6.5	0	4.7	11.2	0	27.3	16.5	43.9	0	0	0	0	0	36.1	8.8	44.9	

Start Time	I-15 Southbound Ramps Southbound				Bear Valley Road Westbound				I-15 Southbound On Ramp Northbound				Bear Valley 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 08:00 AM																	
08:00 AM	45	0	28	73	0	209	126	335	0	0	0	0	0	268	48	316	724
08:15 AM	51	0	32	83	0	215	121	336	0	0	0	0	0	269	59	328	747
08:30 AM	53	0	39	92	0	239	113	352	0	0	0	0	0	246	61	307	751
08:45 AM	46	0	45	91	0	239	126	365	0	0	0	0	0	247	67	314	770
Total Volume	195	0	144	339	0	902	486	1388	0	0	0	0	0	1030	235	1265	2992
% App. Total	57.5	0	42.5		0	65	35		0	0	0		0	81.4	18.6		
PHF	.920	.000	.800	.921	.000	.944	.964	.951	.000	.000	.000	.000	.000	.957	.877	.964	.971

City of Victorville
 N/S: I-15 Southbound Ramps
 E/W: Bear Valley Road
 Weather: Clear

File Name : 01_VIC_15S_Bear Valley PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	I-15 Southbound Ramps Southbound				Bear Valley Road Westbound				I-15 Southbound On Ramp Northbound				Bear Valley 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	66	0	107	173	0	353	92	445	0	0	0	0	0	394	79	473	1091
04:15 PM	63	0	81	144	0	448	86	534	0	0	0	0	0	382	75	457	1135
04:30 PM	76	0	103	179	0	374	80	454	0	0	0	0	0	377	60	437	1070
04:45 PM	76	0	100	176	0	374	93	467	0	0	0	0	0	381	58	439	1082
Total	281	0	391	672	0	1549	351	1900	0	0	0	0	0	1534	272	1806	4378
05:00 PM	72	0	65	137	0	417	84	501	0	0	0	0	0	353	67	420	1058
05:15 PM	76	0	111	187	0	381	87	468	0	0	0	0	0	369	68	437	1092
05:30 PM	73	0	83	156	0	430	88	518	0	0	0	0	0	359	47	406	1080
05:45 PM	60	0	91	151	0	405	90	495	0	0	0	0	0	351	48	399	1045
Total	281	0	350	631	0	1633	349	1982	0	0	0	0	0	1432	230	1662	4275
Grand Total	562	0	741	1303	0	3182	700	3882	0	0	0	0	0	2966	502	3468	8653
Apprch %	43.1	0	56.9		0	82	18		0	0	0		0	85.5	14.5		
Total %	6.5	0	8.6	15.1	0	36.8	8.1	44.9	0	0	0	0	0	34.3	5.8	40.1	

Start Time	I-15 Southbound Ramps Southbound				Bear Valley Road Westbound				I-15 Southbound On Ramp Northbound				Bear Valley 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	66	0	107	173	0	353	92	445	0	0	0	0	0	394	79	473	1091
04:15 PM	63	0	81	144	0	448	86	534	0	0	0	0	0	382	75	457	1135
04:30 PM	76	0	103	179	0	374	80	454	0	0	0	0	0	377	60	437	1070
04:45 PM	76	0	100	176	0	374	93	467	0	0	0	0	0	381	58	439	1082
Total Volume	281	0	391	672	0	1549	351	1900	0	0	0	0	0	1534	272	1806	4378
% App. Total	41.8	0	58.2		0	81.5	18.5		0	0	0		0	84.9	15.1		
PHF	.924	.000	.914	.939	.000	.864	.944	.890	.000	.000	.000	.000	.000	.973	.861	.955	.964

City of Victorville
 N/S: I-15 Northbound Ramps
 E/W: Bear Valley Road
 Weather: Clear

File Name : 02_VIC_15N_Bear Valley AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	I-15 Northbound On Ramp Southbound				Bear Valley Road Westbound				I-15 Northbound Off Ramp Northbound				Bear Valley 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	259	58	317	47	0	117	164	43	216	0	259	740
07:15 AM	0	0	0	0	0	251	58	309	27	0	119	146	53	248	0	301	756
07:30 AM	0	0	0	0	0	240	60	300	26	0	123	149	70	283	0	353	802
07:45 AM	0	0	0	0	0	277	58	335	29	1	123	153	50	300	0	350	838
Total	0	0	0	0	0	1027	234	1261	129	1	482	612	216	1047	0	1263	3136
08:00 AM	0	0	0	0	0	303	43	346	27	0	116	143	39	267	0	306	795
08:15 AM	0	0	0	0	0	295	50	345	37	1	131	169	49	272	0	321	835
08:30 AM	0	0	0	0	0	301	42	343	46	0	148	194	38	258	0	296	833
08:45 AM	0	0	0	0	0	328	37	365	40	0	136	176	47	253	0	300	841
Total	0	0	0	0	0	1227	172	1399	150	1	531	682	173	1050	0	1223	3304
Grand Total	0	0	0	0	0	2254	406	2660	279	2	1013	1294	389	2097	0	2486	6440
Apprch %	0	0	0		0	84.7	15.3		21.6	0.2	78.3		15.6	84.4	0		
Total %	0	0	0		0	35	6.3	41.3	4.3	0	15.7	20.1	6	32.6	0	38.6	

Start Time	I-15 Northbound On Ramp Southbound				Bear Valley Road Westbound				I-15 Northbound Off Ramp Northbound				Bear Valley 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 08:00 AM																	
08:00 AM	0	0	0	0	0	303	43	346	27	0	116	143	39	267	0	306	795
08:15 AM	0	0	0	0	0	295	50	345	37	1	131	169	49	272	0	321	835
08:30 AM	0	0	0	0	0	301	42	343	46	0	148	194	38	258	0	296	833
08:45 AM	0	0	0	0	0	328	37	365	40	0	136	176	47	253	0	300	841
Total Volume	0	0	0	0	0	1227	172	1399	150	1	531	682	173	1050	0	1223	3304
% App. Total	0	0	0		0	87.7	12.3		22	0.1	77.9		14.1	85.9	0		
PHF	.000	.000	.000	.000	.000	.935	.860	.958	.815	.250	.897	.879	.883	.965	.000	.952	.982

City of Victorville
 N/S: I-15 Northbound Ramps
 E/W: Bear Valley Road
 Weather: Clear

File Name : 02_VIC_15N_Bear Valley PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	I-15 Northbound On Ramp Southbound				Bear Valley Road Westbound				I-15 Northbound Off Ramp Northbound				Bear Valley 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	382	23	405	57	3	127	187	69	388	0	457	1049
04:15 PM	0	0	0	0	0	413	49	462	107	0	154	261	59	390	0	449	1172
04:30 PM	0	0	0	0	0	363	37	400	83	1	128	212	67	371	0	438	1050
04:45 PM	0	0	0	0	0	400	46	446	58	0	152	210	61	409	0	470	1126
Total	0	0	0	0	0	1558	155	1713	305	4	561	870	256	1558	0	1814	4397
05:00 PM	0	0	0	0	0	396	45	441	120	1	161	282	65	364	0	429	1152
05:15 PM	0	0	0	0	0	376	37	413	76	0	142	218	73	376	0	449	1080
05:30 PM	0	0	0	0	0	393	34	427	125	1	162	288	72	364	0	436	1151
05:45 PM	0	0	0	0	0	392	47	439	94	1	163	258	57	358	0	415	1112
Total	0	0	0	0	0	1557	163	1720	415	3	628	1046	267	1462	0	1729	4495
Grand Total	0	0	0	0	0	3115	318	3433	720	7	1189	1916	523	3020	0	3543	8892
Apprch %	0	0	0		0	90.7	9.3		37.6	0.4	62.1		14.8	85.2	0		
Total %	0	0	0	0	0	35	3.6	38.6	8.1	0.1	13.4	21.5	5.9	34	0	39.8	

Start Time	I-15 Northbound On Ramp Southbound				Bear Valley Road Westbound				I-15 Northbound Off Ramp Northbound				Bear Valley 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 04:45 PM																	
04:45 PM	0	0	0	0	0	400	46	446	58	0	152	210	61	409	0	470	1126
05:00 PM	0	0	0	0	0	396	45	441	120	1	161	282	65	364	0	429	1152
05:15 PM	0	0	0	0	0	376	37	413	76	0	142	218	73	376	0	449	1080
05:30 PM	0	0	0	0	0	393	34	427	125	1	162	288	72	364	0	436	1151
Total Volume	0	0	0	0	0	1565	162	1727	379	2	617	998	271	1513	0	1784	4509
% App. Total	0	0	0		0	90.6	9.4		38	0.2	61.8		15.2	84.8	0		
PHF	.000	.000	.000	.000	.000	.978	.880	.968	.758	.500	.952	.866	.928	.925	.000	.949	.979

City of Victorville
 N/S: Seventh Avenue
 E/W: Bear Valley Road
 Weather: Clear

File Name : 03_VIC_Seventh_Bear Valley AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Seventh Avenue Southbound				Bear Valley Road Westbound				Seventh Avenue Northbound				Bear Valley 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	18	30	10	58	8	268	13	289	21	23	9	53	7	227	17	251	651
07:15 AM	16	30	10	56	4	251	14	269	11	39	6	56	7	263	18	288	669
07:30 AM	29	36	15	80	11	266	17	294	19	41	19	79	11	341	16	368	821
07:45 AM	30	21	20	71	22	298	11	331	24	59	21	104	10	415	16	441	947
Total	93	117	55	265	45	1083	55	1183	75	162	55	292	35	1246	67	1348	3088
08:00 AM	21	35	12	68	14	336	10	360	14	36	19	69	13	346	15	374	871
08:15 AM	22	48	7	77	12	291	12	315	22	54	21	97	18	337	16	371	860
08:30 AM	37	32	21	90	11	325	14	350	15	49	24	88	10	354	11	375	903
08:45 AM	30	30	17	77	13	342	18	373	15	37	19	71	14	377	14	405	926
Total	110	145	57	312	50	1294	54	1398	66	176	83	325	55	1414	56	1525	3560
Grand Total	203	262	112	577	95	2377	109	2581	141	338	138	617	90	2660	123	2873	6648
Apprch %	35.2	45.4	19.4		3.7	92.1	4.2		22.9	54.8	22.4		3.1	92.6	4.3		
Total %	3.1	3.9	1.7	8.7	1.4	35.8	1.6	38.8	2.1	5.1	2.1	9.3	1.4	40	1.9	43.2	

Start Time	Seventh Avenue Southbound				Bear Valley Road Westbound				Seventh Avenue Northbound				Bear Valley 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 07:45 AM																	
07:45 AM	30	21	20	71	22	298	11	331	24	59	21	104	10	415	16	441	947
08:00 AM	21	35	12	68	14	336	10	360	14	36	19	69	13	346	15	374	871
08:15 AM	22	48	7	77	12	291	12	315	22	54	21	97	18	337	16	371	860
08:30 AM	37	32	21	90	11	325	14	350	15	49	24	88	10	354	11	375	903
Total Volume	110	136	60	306	59	1250	47	1356	75	198	85	358	51	1452	58	1561	3581
% App. Total	35.9	44.4	19.6		4.4	92.2	3.5		20.9	55.3	23.7		3.3	93	3.7		
PHF	.743	.708	.714	.850	.670	.930	.839	.942	.781	.839	.885	.861	.708	.875	.906	.885	.945

City of Victorville
 N/S: Seventh Avenue
 E/W: Bear Valley Road
 Weather: Clear

File Name : 03_VIC_Seventh_Bear Valley PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Seventh Avenue Southbound				Bear Valley Road Westbound				Seventh Avenue Northbound				Bear Valley 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	32	53	19	104	30	400	41	471	16	60	25	101	19	369	26	414	1090
04:15 PM	31	60	27	118	30	393	26	449	32	57	19	108	25	388	38	451	1126
04:30 PM	33	69	23	125	28	374	35	437	23	61	34	118	28	391	26	445	1125
04:45 PM	36	71	20	127	24	351	26	401	24	68	18	110	21	418	23	462	1100
Total	132	253	89	474	112	1518	128	1758	95	246	96	437	93	1566	113	1772	4441
05:00 PM	41	95	22	158	27	370	34	431	26	59	23	108	19	399	27	445	1142
05:15 PM	31	45	18	94	25	392	32	449	31	60	20	111	20	406	30	456	1110
05:30 PM	29	63	19	111	23	375	25	423	17	52	23	92	19	369	16	404	1030
05:45 PM	32	41	18	91	21	319	19	359	33	51	22	106	13	368	28	409	965
Total	133	244	77	454	96	1456	110	1662	107	222	88	417	71	1542	101	1714	4247
Grand Total	265	497	166	928	208	2974	238	3420	202	468	184	854	164	3108	214	3486	8688
Apprch %	28.6	53.6	17.9		6.1	87	7		23.7	54.8	21.5		4.7	89.2	6.1		
Total %	3.1	5.7	1.9	10.7	2.4	34.2	2.7	39.4	2.3	5.4	2.1	9.8	1.9	35.8	2.5	40.1	

Start Time	Seventh Avenue Southbound				Bear Valley Road Westbound				Seventh Avenue Northbound				Bear Valley 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 04:15 PM																	
04:15 PM	31	60	27	118	30	393	26	449	32	57	19	108	25	388	38	451	1126
04:30 PM	33	69	23	125	28	374	35	437	23	61	34	118	28	391	26	445	1125
04:45 PM	36	71	20	127	24	351	26	401	24	68	18	110	21	418	23	462	1100
05:00 PM	41	95	22	158	27	370	34	431	26	59	23	108	19	399	27	445	1142
Total Volume	141	295	92	528	109	1488	121	1718	105	245	94	444	93	1596	114	1803	4493
% App. Total	26.7	55.9	17.4		6.3	86.6	7		23.6	55.2	21.2		5.2	88.5	6.3		
PHF	.860	.776	.852	.835	.908	.947	.864	.957	.820	.901	.691	.941	.830	.955	.750	.976	.984

City of Victorville
 N/S: Third Avenue
 E/W: Bear Valley Road
 Weather: Clear

File Name : 04_VIC_Third_Bear Valley AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Bear Valley Road Westbound			Third Avenue Northbound			Bear Valley Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	3	281	284	1	8	9	252	5	257	550
07:15 AM	3	259	262	2	5	7	268	6	274	543
07:30 AM	7	275	282	4	17	21	362	10	372	675
07:45 AM	7	330	337	6	14	20	455	16	471	828
Total	20	1145	1165	13	44	57	1337	37	1374	2596
08:00 AM	10	315	325	3	14	17	400	8	408	750
08:15 AM	2	306	308	7	14	21	380	5	385	714
08:30 AM	6	338	344	3	8	11	402	5	407	762
08:45 AM	7	374	381	3	18	21	420	8	428	830
Total	25	1333	1358	16	54	70	1602	26	1628	3056
Grand Total	45	2478	2523	29	98	127	2939	63	3002	5652
Apprch %	1.8	98.2		22.8	77.2		97.9	2.1		
Total %	0.8	43.8	44.6	0.5	1.7	2.2	52	1.1	53.1	

Start Time	Bear Valley Road Westbound			Third Avenue Northbound			Bear Valley Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:00 AM	10	315	325	3	14	17	400	8	408	750
08:15 AM	2	306	308	7	14	21	380	5	385	714
08:30 AM	6	338	344	3	8	11	402	5	407	762
08:45 AM	7	374	381	3	18	21	420	8	428	830
Total Volume	25	1333	1358	16	54	70	1602	26	1628	3056
% App. Total	1.8	98.2		22.9	77.1		98.4	1.6		
PHF	.625	.891	.891	.571	.750	.833	.954	.813	.951	.920

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Victorville
 N/S: Third Avenue
 E/W: Bear Valley Road
 Weather: Clear

File Name : 04_VIC_Third_Bear Valley PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Bear Valley Road Westbound			Third Avenue Northbound			Bear Valley Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	5	464	469	6	20	26	407	10	417	912
04:15 PM	11	441	452	8	12	20	418	15	433	905
04:30 PM	10	429	439	3	15	18	422	16	438	895
04:45 PM	12	399	411	5	20	25	499	14	513	949
Total	38	1733	1771	22	67	89	1746	55	1801	3661
05:00 PM	11	438	449	2	18	20	448	17	465	934
05:15 PM	9	393	402	7	16	23	423	16	439	864
05:30 PM	10	410	420	4	7	11	418	12	430	861
05:45 PM	5	381	386	4	8	12	399	11	410	808
Total	35	1622	1657	17	49	66	1688	56	1744	3467
Grand Total	73	3355	3428	39	116	155	3434	111	3545	7128
Apprch %	2.1	97.9		25.2	74.8		96.9	3.1		
Total %	1	47.1	48.1	0.5	1.6	2.2	48.2	1.6	49.7	

Start Time	Bear Valley Road Westbound			Third Avenue Northbound			Bear Valley 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 04:15 PM										
04:15 PM	11	441	452	8	12	20	418	15	433	905
04:30 PM	10	429	439	3	15	18	422	16	438	895
04:45 PM	12	399	411	5	20	25	499	14	513	949
05:00 PM	11	438	449	2	18	20	448	17	465	934
Total Volume	44	1707	1751	18	65	83	1787	62	1849	3683
% App. Total	2.5	97.5		21.7	78.3		96.6	3.4		
PHF	.917	.968	.968	.563	.813	.830	.895	.912	.901	.970

City of Victorville
 N/S: Second Avenue
 E/W: Bear Valley Road
 Weather: Clear

File Name : 05_VIC_Second_Bear Valley AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue Southbound				Bear Valley Road Westbound				Second Avenue Northbound				Bear Valley 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	8	4	13	25	2	274	7	283	4	6	2	12	16	243	1	260	580
07:15 AM	14	6	15	35	2	247	11	260	1	5	6	12	20	246	1	267	574
07:30 AM	11	5	23	39	2	265	23	290	6	13	4	23	33	352	1	386	738
07:45 AM	9	2	22	33	2	305	14	321	5	8	5	18	30	428	3	461	833
Total	42	17	73	132	8	1091	55	1154	16	32	17	65	99	1269	6	1374	2725
08:00 AM	9	3	30	42	1	284	14	299	1	6	4	11	26	393	0	419	771
08:15 AM	15	7	18	40	1	282	21	304	2	9	1	12	20	363	2	385	741
08:30 AM	15	6	17	38	1	324	15	340	3	7	4	14	22	370	3	395	787
08:45 AM	10	3	21	34	3	346	9	358	4	5	3	12	31	425	2	458	862
Total	49	19	86	154	6	1236	59	1301	10	27	12	49	99	1551	7	1657	3161
Grand Total	91	36	159	286	14	2327	114	2455	26	59	29	114	198	2820	13	3031	5886
Apprch %	31.8	12.6	55.6		0.6	94.8	4.6		22.8	51.8	25.4		6.5	93	0.4		
Total %	1.5	0.6	2.7	4.9	0.2	39.5	1.9	41.7	0.4	1	0.5	1.9	3.4	47.9	0.2	51.5	

Start Time	Second Avenue Southbound				Bear Valley Road Westbound				Second Avenue Northbound				Bear Valley 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 08:00 AM																	
08:00 AM	9	3	30	42	1	284	14	299	1	6	4	11	26	393	0	419	771
08:15 AM	15	7	18	40	1	282	21	304	2	9	1	12	20	363	2	385	741
08:30 AM	15	6	17	38	1	324	15	340	3	7	4	14	22	370	3	395	787
08:45 AM	10	3	21	34	3	346	9	358	4	5	3	12	31	425	2	458	862
Total Volume	49	19	86	154	6	1236	59	1301	10	27	12	49	99	1551	7	1657	3161
% App. Total	31.8	12.3	55.8		0.5	95	4.5		20.4	55.1	24.5		6	93.6	0.4		
PHF	.817	.679	.717	.917	.500	.893	.702	.909	.625	.750	.750	.875	.798	.912	.583	.904	.917

City of Victorville
 N/S: Second Avenue
 E/W: Bear Valley Road
 Weather: Clear

File Name : 05_VIC_Second_Bear Valley PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue Southbound				Bear Valley Road Westbound				Second Avenue Northbound				Bear Valley 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	25	12	54	91	7	424	18	449	3	9	7	19	28	407	7	442	1001
04:15 PM	18	8	29	55	9	414	16	439	7	3	12	22	26	386	2	414	930
04:30 PM	22	8	35	65	6	379	15	400	6	7	4	17	23	414	6	443	925
04:45 PM	18	9	27	54	1	373	17	391	8	6	6	20	27	480	6	513	978
Total	83	37	145	265	23	1590	66	1679	24	25	29	78	104	1687	21	1812	3834
05:00 PM	24	15	42	81	6	396	12	414	5	1	5	11	27	435	10	472	978
05:15 PM	21	16	42	79	4	338	11	353	11	6	5	22	28	388	6	422	876
05:30 PM	18	7	35	60	5	366	8	379	8	7	3	18	19	389	3	411	868
05:45 PM	15	7	16	38	2	353	18	373	6	4	4	14	19	401	2	422	847
Total	78	45	135	258	17	1453	49	1519	30	18	17	65	93	1613	21	1727	3569
Grand Total	161	82	280	523	40	3043	115	3198	54	43	46	143	197	3300	42	3539	7403
Apprch %	30.8	15.7	53.5		1.3	95.2	3.6		37.8	30.1	32.2		5.6	93.2	1.2		
Total %	2.2	1.1	3.8	7.1	0.5	41.1	1.6	43.2	0.7	0.6	0.6	1.9	2.7	44.6	0.6	47.8	

Start Time	Second Avenue Southbound				Bear Valley Road Westbound				Second Avenue Northbound				Bear Valley 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	25	12	54	91	7	424	18	449	3	9	7	19	28	407	7	442	1001
04:15 PM	18	8	29	55	9	414	16	439	7	3	12	22	26	386	2	414	930
04:30 PM	22	8	35	65	6	379	15	400	6	7	4	17	23	414	6	443	925
04:45 PM	18	9	27	54	1	373	17	391	8	6	6	20	27	480	6	513	978
Total Volume	83	37	145	265	23	1590	66	1679	24	25	29	78	104	1687	21	1812	3834
% App. Total	31.3	14	54.7		1.4	94.7	3.9		30.8	32.1	37.2		5.7	93.1	1.2		
PHF	.830	.771	.671	.728	.639	.938	.917	.935	.750	.694	.604	.886	.929	.879	.750	.883	.958

City of Victorville
 N/S: Hesperia Road
 E/W: Jasmine Street
 Weather: Clear

File Name : 06_VIC_Hesperia_Jasmine AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Hesperia Road Southbound				Jasmine Street Westbound				Hesperia Road Northbound				Jasmine Street 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	7	115	12	134	6	9	11	26	21	94	2	117	2	7	6	15	292
07:15 AM	10	132	20	162	7	14	16	37	12	83	6	101	2	11	11	24	324
07:30 AM	14	154	12	180	18	20	22	60	18	112	10	140	3	18	8	29	409
07:45 AM	19	169	21	209	14	42	31	87	35	186	16	237	4	15	15	34	567
Total	50	570	65	685	45	85	80	210	86	475	34	595	11	51	40	102	1592
08:00 AM	11	158	15	184	8	27	34	69	45	142	12	199	4	9	22	35	487
08:15 AM	18	162	30	210	9	26	13	48	41	153	6	200	14	20	12	46	504
08:30 AM	12	141	27	180	6	33	22	61	32	176	8	216	6	16	15	37	494
08:45 AM	21	202	31	254	11	22	16	49	37	139	9	185	8	18	24	50	538
Total	62	663	103	828	34	108	85	227	155	610	35	800	32	63	73	168	2023
Grand Total	112	1233	168	1513	79	193	165	437	241	1085	69	1395	43	114	113	270	3615
Apprch %	7.4	81.5	11.1		18.1	44.2	37.8		17.3	77.8	4.9		15.9	42.2	41.9		
Total %	3.1	34.1	4.6	41.9	2.2	5.3	4.6	12.1	6.7	30	1.9	38.6	1.2	3.2	3.1	7.5	

Start Time	Hesperia Road Southbound				Jasmine Street Westbound				Hesperia Road Northbound				Jasmine Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	19	169	21	209	14	42	31	87	35	186	16	237	4	15	15	34	567
08:00 AM	11	158	15	184	8	27	34	69	45	142	12	199	4	9	22	35	487
08:15 AM	18	162	30	210	9	26	13	48	41	153	6	200	14	20	12	46	504
08:30 AM	12	141	27	180	6	33	22	61	32	176	8	216	6	16	15	37	494
Total Volume	60	630	93	783	37	128	100	265	153	657	42	852	28	60	64	152	2052
% App. Total	7.7	80.5	11.9		14	48.3	37.7		18	77.1	4.9		18.4	39.5	42.1		
PHF	.789	.932	.775	.932	.661	.762	.735	.761	.850	.883	.656	.899	.500	.750	.727	.826	.905

City of Victorville
 N/S: Hesperia Road
 E/W: Jasmine Street
 Weather: Clear

File Name : 06_VIC_Hesperia_Jasmine PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Hesperia Road Southbound				Jasmine Street Westbound				Hesperia Road Northbound				Jasmine Street 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	27	184	11	222	11	24	21	56	39	209	13	261	28	29	28	85	624
04:15 PM	23	166	13	202	8	19	27	54	31	275	10	316	12	27	21	60	632
04:30 PM	21	166	20	207	11	15	33	59	34	195	5	234	24	31	50	105	605
04:45 PM	19	174	11	204	12	18	21	51	39	245	14	298	10	12	23	45	598
Total	90	690	55	835	42	76	102	220	143	924	42	1109	74	99	122	295	2459
05:00 PM	26	165	16	207	19	19	35	73	38	247	12	297	21	31	44	96	673
05:15 PM	28	159	13	200	7	14	24	45	30	239	8	277	21	30	31	82	604
05:30 PM	20	174	10	204	9	8	25	42	29	225	10	264	19	10	23	52	562
05:45 PM	15	155	13	183	8	14	18	40	20	192	6	218	8	20	13	41	482
Total	89	653	52	794	43	55	102	200	117	903	36	1056	69	91	111	271	2321
Grand Total	179	1343	107	1629	85	131	204	420	260	1827	78	2165	143	190	233	566	4780
Apprch %	11	82.4	6.6		20.2	31.2	48.6		12	84.4	3.6		25.3	33.6	41.2		
Total %	3.7	28.1	2.2	34.1	1.8	2.7	4.3	8.8	5.4	38.2	1.6	45.3	3	4	4.9	11.8	

Start Time	Hesperia Road Southbound				Jasmine Street Westbound				Hesperia Road Northbound				Jasmine Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	23	166	13	202	8	19	27	54	31	275	10	316	12	27	21	60	632
04:30 PM	21	166	20	207	11	15	33	59	34	195	5	234	24	31	50	105	605
04:45 PM	19	174	11	204	12	18	21	51	39	245	14	298	10	12	23	45	598
05:00 PM	26	165	16	207	19	19	35	73	38	247	12	297	21	31	44	96	673
Total Volume	89	671	60	820	50	71	116	237	142	962	41	1145	67	101	138	306	2508
% App. Total	10.9	81.8	7.3		21.1	30	48.9		12.4	84	3.6		21.9	33	45.1		
PHF	.856	.964	.750	.990	.658	.934	.829	.812	.910	.875	.732	.906	.698	.815	.690	.729	.932

City of Victorville
 N/S: Second Avenue
 E/W: Jasmine Street
 Weather: Clear

File Name : 07_VIC_Second_Jasmine AM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue Southbound				Jasmine Street Westbound				Second Avenue Northbound				Jasmine Street 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	9	19	0	28	13	1	1	15	1	6	12	19	0	5	5	10	72
07:15 AM	10	25	0	35	10	5	0	15	0	10	23	33	0	4	5	9	92
07:30 AM	25	18	2	45	25	5	3	33	2	13	31	46	0	10	6	16	140
07:45 AM	30	27	0	57	19	3	6	28	0	24	32	56	0	12	8	20	161
Total	74	89	2	165	67	14	10	91	3	53	98	154	0	31	24	55	465
08:00 AM	16	26	0	42	20	1	4	25	1	11	21	33	0	8	0	8	108
08:15 AM	15	26	0	41	16	2	7	25	3	19	16	38	0	6	4	10	114
08:30 AM	16	24	1	41	18	2	8	28	3	18	14	35	0	4	4	8	112
08:45 AM	15	17	0	32	23	3	5	31	2	20	28	50	0	3	4	7	120
Total	62	93	1	156	77	8	24	109	9	68	79	156	0	21	12	33	454
Grand Total	136	182	3	321	144	22	34	200	12	121	177	310	0	52	36	88	919
Apprch %	42.4	56.7	0.9		72	11	17		3.9	39	57.1		0	59.1	40.9		
Total %	14.8	19.8	0.3	34.9	15.7	2.4	3.7	21.8	1.3	13.2	19.3	33.7	0	5.7	3.9	9.6	

Start Time	Second Avenue Southbound				Jasmine Street Westbound				Second Avenue Northbound				Jasmine Street 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	25	18	2	45	25	5	3	33	2	13	31	46	0	10	6	16	140
07:45 AM	30	27	0	57	19	3	6	28	0	24	32	56	0	12	8	20	161
08:00 AM	16	26	0	42	20	1	4	25	1	11	21	33	0	8	0	8	108
08:15 AM	15	26	0	41	16	2	7	25	3	19	16	38	0	6	4	10	114
Total Volume	86	97	2	185	80	11	20	111	6	67	100	173	0	36	18	54	523
% App. Total	46.5	52.4	1.1		72.1	9.9	18		3.5	38.7	57.8		0	66.7	33.3		
PHF	.717	.898	.250	.811	.800	.550	.714	.841	.500	.698	.781	.772	.000	.750	.563	.675	.812

City of Victorville
 N/S: Second Avenue
 E/W: Jasmine Street
 Weather: Clear

File Name : 07_VIC_Second_Jasmine PM
 Site Code : 99919815
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Second Avenue Southbound				Jasmine Street Westbound				Second Avenue Northbound				Jasmine Street 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	11	19	0	30	40	5	20	65	3	32	27	62	0	2	3	5	162
04:15 PM	8	16	0	24	33	6	16	55	6	21	28	55	0	7	5	12	146
04:30 PM	11	21	0	32	22	4	23	49	8	19	21	48	0	2	3	5	134
04:45 PM	9	15	0	24	21	2	11	34	4	24	35	63	0	2	2	4	125
Total	39	71	0	110	116	17	70	203	21	96	111	228	0	13	13	26	567
05:00 PM	14	16	1	31	41	4	33	78	6	32	23	61	0	3	4	7	177
05:15 PM	8	25	0	33	34	5	18	57	4	20	24	48	0	6	5	11	149
05:30 PM	5	18	0	23	34	4	17	55	5	18	21	44	0	4	2	6	128
05:45 PM	4	18	0	22	13	6	11	30	5	18	15	38	0	7	4	11	101
Total	31	77	1	109	122	19	79	220	20	88	83	191	0	20	15	35	555
Grand Total	70	148	1	219	238	36	149	423	41	184	194	419	0	33	28	61	1122
Apprch %	32	67.6	0.5		56.3	8.5	35.2		9.8	43.9	46.3		0	54.1	45.9		
Total %	6.2	13.2	0.1	19.5	21.2	3.2	13.3	37.7	3.7	16.4	17.3	37.3	0	2.9	2.5	5.4	

Start Time	Second Avenue Southbound				Jasmine Street Westbound				Second Avenue Northbound				Jasmine Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	11	21	0	32	22	4	23	49	8	19	21	48	0	2	3	5	134
04:45 PM	9	15	0	24	21	2	11	34	4	24	35	63	0	2	2	4	125
05:00 PM	14	16	1	31	41	4	33	78	6	32	23	61	0	3	4	7	177
05:15 PM	8	25	0	33	34	5	18	57	4	20	24	48	0	6	5	11	149
Total Volume	42	77	1	120	118	15	85	218	22	95	103	220	0	13	14	27	585
% App. Total	35	64.2	0.8		54.1	6.9	39		10	43.2	46.8		0	48.1	51.9		
PHF	.750	.770	.250	.909	.720	.750	.644	.699	.688	.742	.736	.873	.000	.542	.700	.614	.826

APPENDIX C

HCM ANALYSIS WORKSHEETS

EXISTING CONDITIONS

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	Northbound			I-15 SB Ramp			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	281	0	391	0	1534	272	0	1549	351
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	281	0	391	0	1534	272	0	1549	351
Peak Hour Factor	0.9710	0.9710	0.9710	0.9640	1.0000	0.9640	1.0000	0.9640	0.9640	1.0000	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	73	0	101	0	398	71	0	402	91
Total Analysis Volume [veh/h]	0	0	0	291	0	406	0	1591	282	0	1607	364
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		18	18	62	62	62	62
g / C, Green / Cycle		0.20	0.20	0.69	0.69	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate		0.09	0.16	0.35	0.20	0.32	0.33
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1489
c, Capacity [veh/h]		611	497	3143	981	3143	1021
d1, Uniform Delay [s]		31.96	34.51	6.79	5.52	6.54	6.63
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.58	3.36	0.59	0.74	0.51	1.63
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.48	0.82	0.51	0.29	0.47	0.48
d, Delay for Lane Group [s/veh]		32.54	37.87	7.37	6.26	7.05	8.26
Lane Group LOS		C	D	A	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		2.73	4.27	3.84	1.79	3.43	3.79
50th-Percentile Queue Length [ft/ln]		68.28	106.81	95.94	44.68	85.78	94.72
95th-Percentile Queue Length [veh/ln]		4.92	7.66	6.91	3.22	6.18	6.82
95th-Percentile Queue Length [ft/ln]		122.91	191.55	172.70	80.43	154.41	170.50

Movement, Approach, & Intersection Results

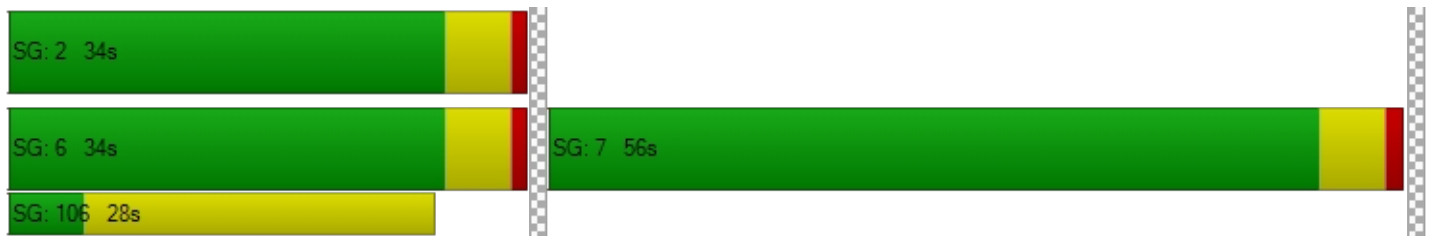
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	32.54	0.00	37.87	0.00	7.37	6.26	0.00	7.15	8.26
Movement LOS				C		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			35.64			7.21			7.35		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	11.64											
Intersection LOS	B											
Intersection V/C	0.507											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.577	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.590	2.373
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	76.4
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.980

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	379	2	617	0	0	0	271	1513	0	0	1565	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	379	2	617	0	0	0	271	1513	0	0	1565	162
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	97	1	158	0	0	0	69	386	0	0	400	41
Total Analysis Volume [veh/h]	387	2	630	0	0	0	277	1545	0	0	1599	165
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	47	47	0	0	0	0	22	63	0	0	41	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	110	110		110	110	110	110
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	42	42		17	58	36	36
g / C, Green / Cycle	0.38	0.38		0.15	0.53	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.24	0.44		0.17	0.34	0.37	0.37
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1604
c, Capacity [veh/h]	605	540		245	2412	1042	521
d1, Uniform Delay [s]	28.14	34.23		46.58	18.62	37.10	37.10
k, delay calibration	0.18	0.50		0.16	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.91	93.79		75.19	1.32	70.30	79.43
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	1.17		1.13	0.64	1.13	1.13
d, Delay for Lane Group [s/veh]	30.06	128.02		121.77	19.93	107.40	116.53
Lane Group LOS	C	F		F	B	F	F
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.36	27.64		11.64	8.97	23.52	24.87
50th-Percentile Queue Length [ft/ln]	209.10	691.05		290.95	224.13	588.09	621.68
95th-Percentile Queue Length [veh/ln]	13.11	40.11		18.21	13.88	33.96	35.66
95th-Percentile Queue Length [ft/ln]	327.67	1002.77		455.16	346.89	849.08	891.38

Movement, Approach, & Intersection Results

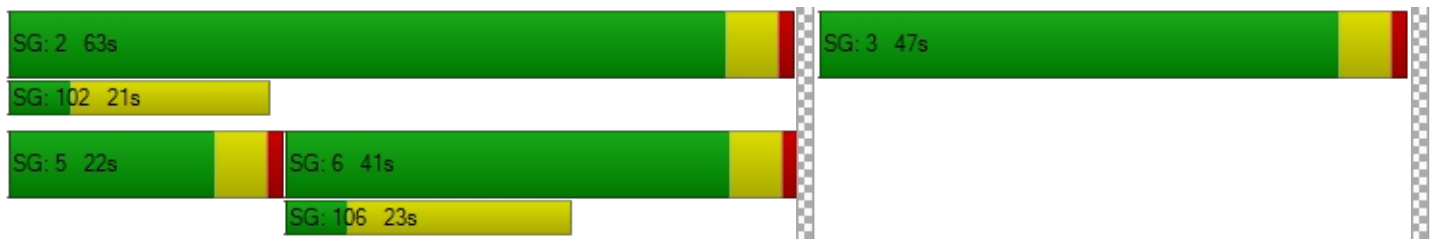
d_M, Delay for Movement [s/veh]	30.06	30.06	128.02	0.00	0.00	0.00	121.77	19.93	0.00	0.00	109.82	116.53
Movement LOS	C	C	F				F	B			F	F
d_A, Approach Delay [s/veh]	90.62			0.00			35.42			110.44		
Approach LOS	F			A			D			F		
d_I, Intersection Delay [s/veh]	76.37											
Intersection LOS	E											
Intersection V/C	0.980											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.393	2.015	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	758	0	1049	649
d_b, Bicycle Delay [s]	21.20	55.00	12.43	25.09
I_b,int, Bicycle LOS Score for Intersection	3.241	4.132	2.562	2.530
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	33.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	105	245	94	141	295	92	93	1596	114	109	1488	121
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	105	245	94	141	295	92	93	1596	114	109	1488	121
Peak Hour Factor	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	62	24	36	75	23	24	405	29	28	378	31
Total Analysis Volume [veh/h]	107	249	96	143	300	93	95	1622	116	111	1512	123
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	35	0	15	41	0	17	36	0	14	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	24	24	26	24	24	7	41	41	8	42	42
g / C, Green / Cycle	0.24	0.24	0.26	0.24	0.24	0.07	0.41	0.41	0.08	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.09	0.22	0.11	0.18	0.07	0.06	0.35	0.08	0.07	0.33	0.09
s, saturation flow rate [veh/h]	1154	1604	1275	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	221	379	254	411	350	118	1894	591	133	1938	605
d1, Uniform Delay [s]	32.66	37.18	38.19	34.75	30.54	45.64	26.67	18.75	45.17	24.87	18.24
k, delay calibration	0.11	0.15	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.64	11.10	1.95	2.49	0.40	12.07	5.25	0.74	12.45	3.19	0.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.91	0.56	0.73	0.27	0.81	0.86	0.20	0.83	0.78	0.20
d, Delay for Lane Group [s/veh]	34.30	48.28	40.13	37.24	30.94	57.71	31.91	19.49	57.62	28.06	18.99
Lane Group LOS	C	D	D	D	C	E	C	B	E	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.13	8.93	2.84	6.74	1.80	2.61	11.38	1.70	3.05	9.77	1.77
50th-Percentile Queue Length [ft/ln]	53.14	223.26	70.98	168.50	44.94	65.30	284.60	42.51	76.17	244.37	44.35
95th-Percentile Queue Length [veh/ln]	3.83	13.83	5.11	11.00	3.24	4.70	16.92	3.06	5.48	14.90	3.19
95th-Percentile Queue Length [ft/ln]	95.66	345.78	127.77	274.94	80.90	117.53	422.93	76.53	137.11	372.55	79.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.30	48.28	48.28	40.13	37.24	30.94	57.71	31.91	19.49	57.62	28.06	18.99
Movement LOS	C	D	D	D	D	C	E	C	B	E	C	B
d_A, Approach Delay [s/veh]	44.97			36.92			32.47			29.30		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	33.02											
Intersection LOS	C											
Intersection V/C	0.682											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.496	2.567	3.478	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	586	706	606	546
d_b, Bicycle Delay [s]	24.99	20.93	24.29	26.43
I_b,int, Bicycle LOS Score for Intersection	2.305	2.444	2.568	2.520
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 252.7
 Level Of Service: F
 Volume to Capacity (v/c): 0.668

Intersection Setup

Name	3rd Ave		Bear Valley		Bear Valley	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	300.00	200.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	3rd Ave		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	18	65	1787	62	44	1707
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	65	1787	62	44	1707
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	17	461	16	11	440
Total Analysis Volume [veh/h]	19	67	1842	64	45	1760
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.67	0.29	0.02	0.00	0.32	0.02
d_M, Delay for Movement [s/veh]	252.71	141.49	0.00	0.00	42.62	0.00
Movement LOS	F	F	A	A	E	A
95th-Percentile Queue Length [veh/ln]	5.43	5.43	0.00	0.00	1.29	0.00
95th-Percentile Queue Length [ft/ln]	135.69	135.69	0.00	0.00	32.19	0.00
d_A, Approach Delay [s/veh]	166.06		0.00		1.06	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	4.27					
Intersection LOS	F					

**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← ↑ ↓ →			← ↑ ↓ →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	175.00	100.00	100.00	250.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
	24	25	29	83	37	145	104	1687	21	23	1590	66
Base Volume Input [veh/h]	24	25	29	83	37	145	104	1687	21	23	1590	66
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	25	29	83	37	145	104	1687	21	23	1590	66
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	7	8	22	10	38	27	440	5	6	415	17
Total Analysis Volume [veh/h]	25	26	30	87	39	151	109	1761	22	24	1660	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	12	56	56	13	32	0	12	31	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No		No	No	No	No	No		No	No	
Maximum Recall		No		No	No	No	No	No		No	No	
Pedestrian Recall		No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	8	6	20	33	7	60	60	2	55	55
g / C, Green / Cycle	0.08	0.06	0.20	0.33	0.07	0.60	0.60	0.02	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.07	0.05	0.02	0.11	0.07	0.37	0.37	0.01	0.36	0.05
s, saturation flow rate [veh/h]	1150	1603	1683	1431	1603	3204	1672	1603	4584	1431
c, Capacity [veh/h]	142	102	342	477	118	1926	1005	40	2534	791
d1, Uniform Delay [s]	45.49	46.42	32.54	24.86	46.10	12.55	12.55	48.30	15.69	10.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.56	17.84	0.15	0.38	24.14	1.44	2.74	13.56	1.34	0.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.86	0.11	0.32	0.93	0.61	0.61	0.60	0.66	0.09
d, Delay for Lane Group [s/veh]	49.05	64.25	32.69	25.24	70.24	13.98	15.29	61.85	17.03	10.73
Lane Group LOS	D	E	C	C	E	B	B	E	B	B
Critical Lane Group	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.06	2.57	0.76	2.57	3.36	7.12	7.80	0.72	7.82	0.67
50th-Percentile Queue Length [ft/ln]	51.50	64.26	18.88	64.35	83.93	178.06	195.10	17.97	195.38	16.87
95th-Percentile Queue Length [veh/ln]	3.71	4.63	1.36	4.63	6.04	11.50	12.39	1.29	12.40	1.21
95th-Percentile Queue Length [ft/ln]	92.71	115.67	33.99	115.83	151.08	287.48	309.63	32.34	310.00	30.36

Movement, Approach, & Intersection Results

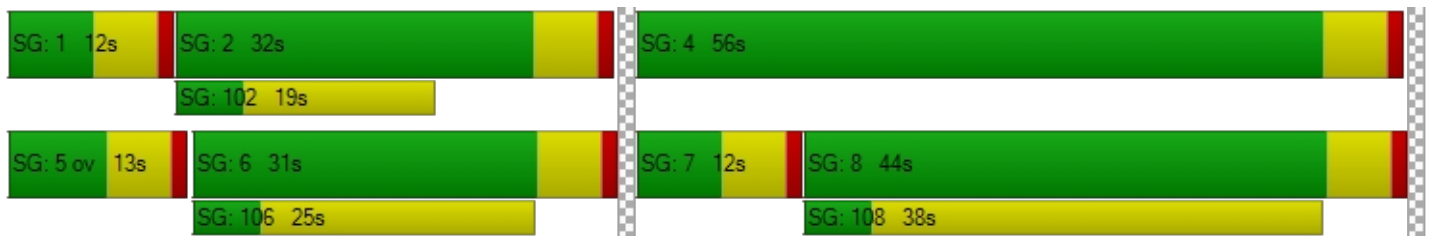
d_M, Delay for Movement [s/veh]	49.05	49.05	49.05	64.25	32.69	25.24	70.24	14.42	15.29	61.85	17.03	10.73
Movement LOS	D	D	D	E	C	C	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	49.05			38.54			17.65			17.40		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	19.62											
Intersection LOS	B											
Intersection V/C	0.555											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	0.00	41.41
I_p,int, Pedestrian LOS Score for Intersection	1.843	2.447	0.000	3.470
Crosswalk LOS	A	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	1006	526	506
d_b, Bicycle Delay [s]	19.03	12.35	27.16	27.90
I_b,int, Bicycle LOS Score for Intersection	1.693	2.017	2.600	2.524
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	100.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.049

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	21	5	9	86	1	712	656	2613	9	3	1855	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	5	9	86	1	712	656	2613	9	3	1855	39
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	2	23	0	189	174	694	2	1	493	10
Total Analysis Volume [veh/h]	22	5	10	91	1	757	697	2777	10	3	1971	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	66	68	0	11	13	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	97	97	97	97	97	97	97	97	97
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	22	22	57	30	60	60	0	30	30
g / C, Green / Cycle	0.22	0.22	0.58	0.31	0.61	0.61	0.00	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.04	0.08	0.30	0.43	0.57	0.57	0.00	0.41	0.41
s, saturation flow rate [veh/h]	861	1138	2532	1603	3204	1680	1603	3204	1665
c, Capacity [veh/h]	249	325	1477	494	1958	1026	8	986	513
d1, Uniform Delay [s]	32.15	32.38	12.05	33.63	17.13	17.17	48.22	33.66	33.66
k, delay calibration	0.11	0.11	0.11	0.50	0.37	0.50	0.11	0.19	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.27	0.47	0.28	196.37	7.58	16.24	24.66	156.44	167.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.28	0.51	1.41	0.93	0.94	0.36	1.34	1.34
d, Delay for Lane Group [s/veh]	32.42	32.86	12.32	230.00	24.71	33.40	72.87	190.10	201.04
Lane Group LOS	C	C	B	F	C	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.79	1.88	4.58	37.79	16.84	20.19	0.13	32.23	35.06
50th-Percentile Queue Length [ft/ln]	19.84	46.91	114.59	944.65	420.91	504.66	3.17	805.63	876.39
95th-Percentile Queue Length [veh/ln]	1.43	3.38	8.09	57.56	23.57	27.55	0.23	48.84	52.75
95th-Percentile Queue Length [ft/ln]	35.71	84.43	202.36	1438.91	589.14	688.87	5.71	1221.05	1318.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.42	32.42	32.42	32.86	32.86	12.32	230.00	27.68	33.40	72.87	193.69	201.04
Movement LOS	C	C	C	C	C	B	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	32.42			14.55			68.17			193.66		
Approach LOS	C			B			E			F		
d_I, Intersection Delay [s/veh]	100.44											
Intersection LOS	F											
Intersection V/C	1.049											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	171
d_b, Bicycle Delay [s]	39.48	39.48	4.14	37.63
I_b,int, Bicycle LOS Score for Intersection	1.621	2.960	3.476	2.668
Bicycle LOS	A	C	C	B

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	25.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.518

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	142	962	41	89	671	60	67	101	138	50	71	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	142	962	41	89	671	60	67	101	138	50	71	116
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	258	11	24	180	16	18	27	37	13	19	31
Total Analysis Volume [veh/h]	152	1032	44	95	720	64	72	108	148	54	76	124
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	31	0	12	29	0	26	34	0	13	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	10	47	47	7	43	43	5	12	12	4	10	10
g / C, Green / Cycle	0.12	0.52	0.52	0.07	0.48	0.48	0.06	0.13	0.13	0.04	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.09	0.32	0.03	0.06	0.22	0.04	0.04	0.06	0.10	0.03	0.05	0.09
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1431
c, Capacity [veh/h]	185	1668	744	118	1532	684	91	217	184	67	192	163
d1, Uniform Delay [s]	38.89	15.27	10.68	41.09	15.82	12.84	41.92	36.51	38.11	42.75	37.01	38.70
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.63	1.74	0.15	12.23	0.22	0.06	13.94	1.77	7.92	19.20	1.33	7.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.82	0.62	0.06	0.81	0.47	0.09	0.79	0.50	0.80	0.80	0.40	0.76
d, Delay for Lane Group [s/veh]	47.52	17.01	10.83	53.32	16.04	12.90	55.86	38.28	46.03	61.95	38.34	45.83
Lane Group LOS	D	B	B	D	B	B	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.64	7.16	0.43	2.38	4.45	0.65	1.88	2.24	3.45	1.50	1.55	2.85
50th-Percentile Queue Length [ft/ln]	90.89	178.91	10.86	59.49	111.23	16.16	46.99	55.89	86.27	37.47	38.76	71.18
95th-Percentile Queue Length [veh/ln]	6.54	11.54	0.78	4.28	7.91	1.16	3.38	4.02	6.21	2.70	2.79	5.12
95th-Percentile Queue Length [ft/ln]	163.60	288.59	19.54	107.07	197.71	29.08	84.57	100.60	155.29	67.45	69.77	128.12

Movement, Approach, & Intersection Results

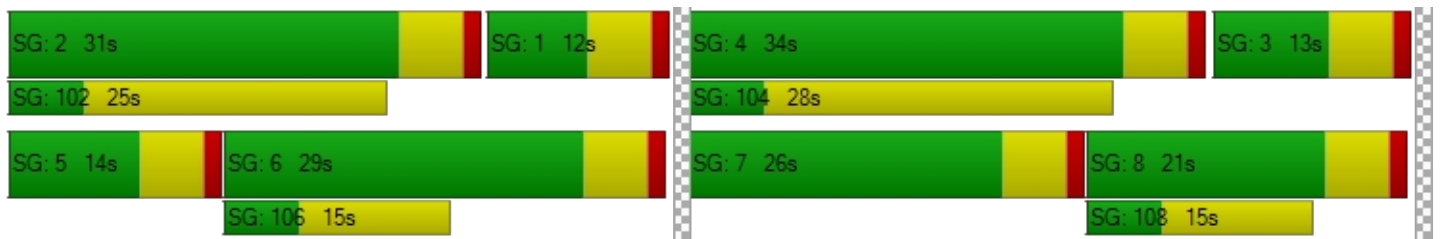
d_M, Delay for Movement [s/veh]	47.52	17.01	10.83	53.32	16.04	12.90	55.86	38.28	46.03	61.95	38.34	45.83
Movement LOS	D	B	B	D	B	B	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	20.56			19.84			45.64			47.02		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	25.88											
Intersection LOS	C											
Intersection V/C	0.518											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.862	2.968	2.463	2.448
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	527	638	349
d_b, Bicycle Delay [s]	22.97	24.42	20.88	30.67
I_b,int, Bicycle LOS Score for Intersection	2.573	2.285	1.830	1.769
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.6
 Level Of Service: A
 Volume to Capacity (v/c): 0.247

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	22	95	103	42	77	1	0	13	14	118	15	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	95	103	42	77	1	0	13	14	118	15	85
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	29	31	13	23	0	0	4	4	36	5	26
Total Analysis Volume [veh/h]	27	115	125	51	93	1	0	16	17	143	18	103
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	575	626	712	558	605	583	619	579	628	715
Degree of Utilization, x	0.05	0.18	0.18	0.09	0.16	0.00	0.05	0.25	0.03	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.15	0.67	0.63	0.30	0.55	0.00	0.17	0.97	0.09	0.50
95th-Percentile Queue Length [ft]	3.68	16.73	15.84	7.51	13.67	0.00	4.22	24.21	2.21	12.55
Approach Delay [s/veh]	9.27			9.76			8.85		9.87	
Approach LOS	A			A			A		A	
Intersection Delay [s/veh]	9.58									
Intersection LOS	A									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type:	All-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.403

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	157	22	150	98	26	171
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	157	22	150	98	26	171
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	7	47	31	8	53
Total Analysis Volume [veh/h]	196	28	188	123	33	214
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	671	771	721
Degree of Utilization, x	0.33	0.40	0.34

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.46	1.96	1.52
95th-Percentile Queue Length [ft]	36.61	49.03	38.11
Approach Delay [s/veh]	11.03	10.79	10.57
Approach LOS	B	B	B
Intersection Delay [s/veh]	10.79		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.1
 Level Of Service: B
 Volume to Capacity (v/c): 0.510

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	11	21	3	142	40	47	38	103	7	4	163	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	21	3	142	40	47	38	103	7	4	163	150
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	6	1	42	12	14	11	31	2	1	49	45
Total Analysis Volume [veh/h]	13	25	4	169	48	56	45	123	8	5	194	179
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	546	630	648	663	742
Degree of Utilization, x	0.07	0.01	0.42	0.27	0.51

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.22	0.02	2.09	1.07	2.93
95th-Percentile Queue Length [ft]	5.59	0.48	52.29	26.63	73.31
Approach Delay [s/veh]	9.66		12.54	10.38	12.80
Approach LOS	A		B	B	B
Intersection Delay [s/veh]	12.08				
Intersection LOS	B				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.037

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	46	68	12	8	91	15	11	55	18	19	88	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	68	12	8	91	15	11	55	18	19	88	7
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	18	3	2	24	4	3	15	5	5	23	2
Total Analysis Volume [veh/h]	49	72	13	8	96	16	12	58	19	20	93	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.01	0.00	0.00	0.02	0.10	0.02	0.04	0.16	0.01
d_M, Delay for Movement [s/veh]	7.52	0.00	0.00	7.39	0.00	0.00	12.96	12.10	9.74	13.17	12.71	10.21
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	B
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.10	0.02	0.02	0.02	0.49	0.49	0.49	0.75	0.75	0.75
95th-Percentile Queue Length [ft/ln]	2.57	2.57	2.57	0.40	0.40	0.40	12.36	12.36	12.36	18.87	18.87	18.87
d_A, Approach Delay [s/veh]	2.75			0.49			11.71			12.64		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	6.45											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.058

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	0	23	0	17	38	26	19	60	2	2	76	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	23	0	17	38	26	19	60	2	2	76	14
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	0	4	10	7	5	16	1	1	20	4
Total Analysis Volume [veh/h]	0	24	0	18	40	27	20	63	2	2	80	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.00	0.02	0.06	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.59	10.47	8.79	10.57	10.81	9.29	7.43	0.00	0.00	7.35	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.11	0.37	0.37	0.37	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.73	2.73	2.73	9.31	9.31	9.31	1.01	1.01	1.01	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.47			10.28			1.75			0.15		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	4.43											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	7.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.415

Intersection Setup

Name	I-15 SB Ramp			Bear Valley			Bear Valley					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	195	0	144	0	1030	235	0	902	486
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	195	0	144	0	1030	235	0	902	486
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	1.0000	0.9710	1.0000	0.9710	0.9710	1.0000	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	50	0	37	0	265	61	0	232	125
Total Analysis Volume [veh/h]	0	0	0	201	0	148	0	1061	242	0	929	501
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0	
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0	
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0	
Delayed Vehicle Green [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	
Rest In Walk				No				No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	
Minimum Recall				No				No			No		
Maximum Recall				No				No			No		
Pedestrian Recall				No				No			No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		9	9	71	71	71	71
g / C, Green / Cycle		0.10	0.10	0.79	0.79	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate		0.06	0.06	0.23	0.17	0.20	0.35
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1431
c, Capacity [veh/h]		296	241	3607	1126	3607	1126
d1, Uniform Delay [s]		39.35	39.09	2.66	2.46	2.56	3.14
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2.71	2.53	0.21	0.44	0.17	1.28
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.68	0.61	0.29	0.21	0.26	0.45
d, Delay for Lane Group [s/veh]		42.06	41.62	2.86	2.89	2.73	4.42
Lane Group LOS		D	D	A	A	A	A
Critical Lane Group		Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]		2.18	1.60	0.98	0.71	0.83	1.93
50th-Percentile Queue Length [ft/ln]		54.57	39.99	24.54	17.86	20.69	48.19
95th-Percentile Queue Length [veh/ln]		3.93	2.88	1.77	1.29	1.49	3.47
95th-Percentile Queue Length [ft/ln]		98.22	71.98	44.18	32.14	37.25	86.74

Movement, Approach, & Intersection Results

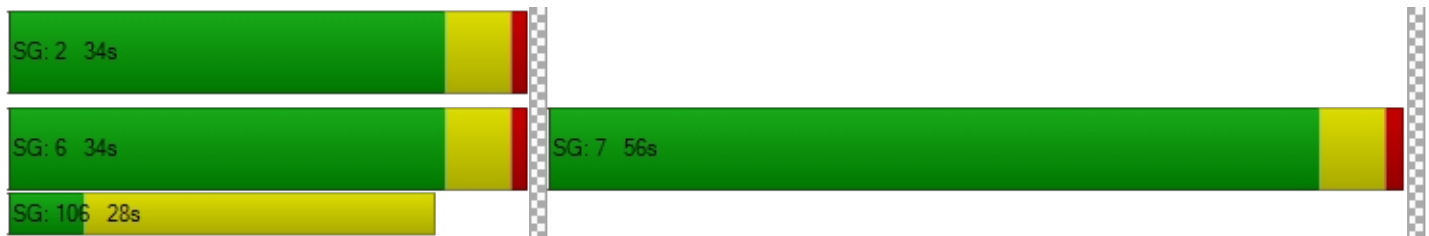
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	42.06	0.00	41.62	0.00	2.86	2.89	0.00	2.73	4.42
Movement LOS				D		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			41.87			2.87			3.32		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	7.50											
Intersection LOS	A											
Intersection V/C	0.415											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.522	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.276	2.149
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	38.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	150	1	531	0	0	0	173	1050	0	0	1227	172
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	1	531	0	0	0	173	1050	0	0	1227	172
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	0	135	0	0	0	44	267	0	0	312	43
Total Analysis Volume [veh/h]	153	1	541	0	0	0	176	1069	0	0	1249	172
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	40	40	0	0	0	0	16	50	0	0	34	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	90	90		90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	35	35		11	45	29	29
g / C, Green / Cycle	0.39	0.39		0.12	0.50	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.10	0.38		0.11	0.23	0.30	0.30
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1582
c, Capacity [veh/h]	617	550		193	2282	1021	504
d1, Uniform Delay [s]	18.88	27.45		39.17	14.82	29.70	29.87
k, delay calibration	0.11	0.42		0.11	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	31.30		15.12	0.69	15.39	27.64
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.98		0.91	0.47	0.93	0.94
d, Delay for Lane Group [s/veh]	19.09	58.75		54.28	15.51	45.09	57.51
Lane Group LOS	B	E		D	B	D	E
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.09	15.26		4.50	4.44	11.40	13.14
50th-Percentile Queue Length [ft/ln]	52.20	381.60		112.62	111.00	284.97	328.42
95th-Percentile Queue Length [veh/ln]	3.76	21.67		7.99	7.90	16.94	19.08
95th-Percentile Queue Length [ft/ln]	93.97	541.78		199.64	197.40	423.40	477.02

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.09	19.09	58.75	0.00	0.00	0.00	54.28	15.51	0.00	0.00	48.09	57.51
Movement LOS	B	B	E				D	B			D	E
d_A, Approach Delay [s/veh]	49.96			0.00			20.99			49.23		
Approach LOS	D			A			C			D		
d_I, Intersection Delay [s/veh]	38.92											
Intersection LOS	D											
Intersection V/C	0.787											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.243	1.943	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	771	0	993	638
d_b, Bicycle Delay [s]	16.99	45.00	11.40	20.88
I_b,int, Bicycle LOS Score for Intersection	2.706	4.132	2.244	2.341
Bicycle LOS	B	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	75	198	85	110	136	60	51	1452	58	59	1250	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	198	85	110	136	60	51	1452	58	59	1250	47
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	52	22	29	36	16	13	384	15	16	331	12
Total Analysis Volume [veh/h]	79	210	90	116	144	63	54	1537	61	62	1323	50
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	28	0	22	41	0	17	38	0	12	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	21	21	22	20	20	4	49	49	5	49	49
g / C, Green / Cycle	0.21	0.21	0.22	0.20	0.20	0.04	0.49	0.49	0.05	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.06	0.19	0.13	0.09	0.04	0.03	0.34	0.04	0.04	0.29	0.03
s, saturation flow rate [veh/h]	1293	1598	924	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	289	329	241	337	286	67	2231	696	77	2260	705
d1, Uniform Delay [s]	33.46	38.83	38.53	34.99	33.47	47.50	19.83	13.77	47.13	18.08	13.33
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.51	9.78	1.49	0.86	0.38	19.17	1.76	0.25	17.08	1.12	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.91	0.48	0.43	0.22	0.80	0.69	0.09	0.80	0.59	0.07
d, Delay for Lane Group [s/veh]	33.97	48.61	40.02	35.85	33.86	66.68	21.59	14.01	64.21	19.20	13.52
Lane Group LOS	C	D	D	D	C	E	C	B	E	B	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.58	7.73	2.40	3.06	1.28	1.63	8.42	0.71	1.83	6.61	0.57
50th-Percentile Queue Length [ft/ln]	39.45	193.18	60.10	76.41	31.90	40.86	210.62	17.86	45.70	165.25	14.28
95th-Percentile Queue Length [veh/ln]	2.84	12.29	4.33	5.50	2.30	2.94	13.18	1.29	3.29	10.83	1.03
95th-Percentile Queue Length [ft/ln]	71.01	307.16	108.18	137.53	57.41	73.55	329.62	32.15	82.26	270.66	25.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.97	48.61	48.61	40.02	35.85	33.86	66.68	21.59	14.01	64.21	19.20	13.52
Movement LOS	C	D	D	D	D	C	E	C	B	E	B	B
d_A, Approach Delay [s/veh]	45.56			36.96			22.78			20.95		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	25.57											
Intersection LOS	C											
Intersection V/C	0.589											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.374	2.472	3.380	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	446	706	646	546
d_b, Bicycle Delay [s]	30.19	20.93	22.92	26.43
I_b,int, Bicycle LOS Score for Intersection	2.185	2.093	2.468	2.349
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 111.1
 Level Of Service: F
 Volume to Capacity (v/c): 0.348

Intersection Setup

Name	3rd Ave		Bear Valley		Bear Valley	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	300.00	200.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	3rd Ave		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	16	54	1602	26	25	1333
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	54	1602	26	25	1333
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	15	435	7	7	362
Total Analysis Volume [veh/h]	17	59	1741	28	27	1449
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.35	0.23	0.02	0.00	0.17	0.01
d_M, Delay for Movement [s/veh]	111.14	51.77	0.00	0.00	31.31	0.00
Movement LOS	F	F	A	A	D	A
95th-Percentile Queue Length [veh/ln]	2.92	2.92	0.00	0.00	0.57	0.00
95th-Percentile Queue Length [ft/ln]	72.92	72.92	0.00	0.00	14.34	0.00
d_A, Approach Delay [s/veh]	65.05		0.00		0.57	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.74					
Intersection LOS	F					

**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.443

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← ↑ ↓ →			← ↑ ↓ →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	175.00	100.00	100.00	250.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	10	27	12	49	19	86	99	1551	7	6	1236	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	27	12	49	19	86	99	1551	7	6	1236	59
Peak Hour Factor	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	7	3	13	5	23	27	423	2	2	337	16
Total Analysis Volume [veh/h]	11	29	13	53	21	94	108	1691	8	7	1348	64
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	11	55	55	14	34	0	11	31	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No		No	No	No	No	No		No	No	
Maximum Recall		No		No	No	No	No	No		No	No	
Pedestrian Recall		No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	5	4	15	29	8	67	67	1	60	60
g / C, Green / Cycle	0.05	0.04	0.15	0.29	0.08	0.67	0.67	0.01	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.05	0.03	0.01	0.07	0.07	0.35	0.35	0.00	0.29	0.04
s, saturation flow rate [veh/h]	1090	1603	1683	1431	1603	3204	1679	1603	4584	1431
c, Capacity [veh/h]	101	66	255	416	132	2141	1122	15	2728	851
d1, Uniform Delay [s]	47.24	47.56	36.49	26.93	45.16	8.45	8.45	49.32	11.62	8.59
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.12	19.33	0.14	0.27	11.46	0.91	1.73	20.35	0.64	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.80	0.08	0.23	0.82	0.52	0.52	0.46	0.49	0.08
d, Delay for Lane Group [s/veh]	51.36	66.89	36.63	27.20	56.62	9.35	10.18	69.67	12.26	8.76
Lane Group LOS	D	E	D	C	E	A	B	E	B	A
Critical Lane Group	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.39	1.62	0.44	1.65	2.94	4.91	5.40	0.25	4.91	0.54
50th-Percentile Queue Length [ft/ln]	34.68	40.53	10.88	41.37	73.38	122.83	135.12	6.31	122.83	13.52
95th-Percentile Queue Length [veh/ln]	2.50	2.92	0.78	2.98	5.28	8.55	9.22	0.45	8.55	0.97
95th-Percentile Queue Length [ft/ln]	62.42	72.95	19.58	74.46	132.08	213.71	230.44	11.37	213.72	24.33

Movement, Approach, & Intersection Results

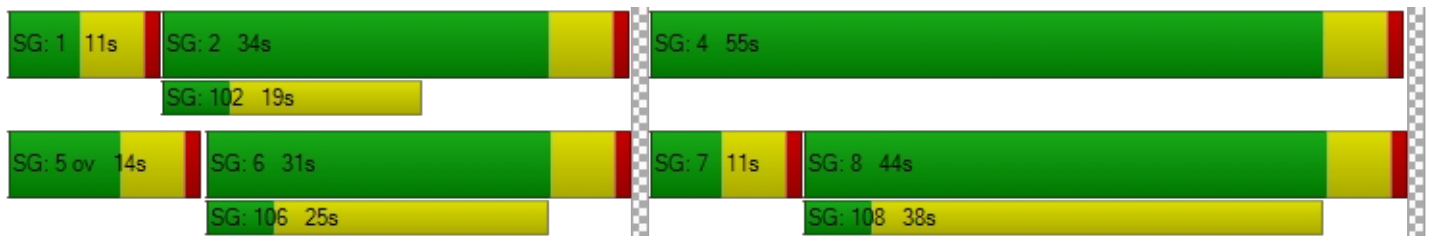
d_M, Delay for Movement [s/veh]	51.36	51.36	51.36	66.89	36.63	27.20	56.62	9.63	10.18	69.67	12.26	8.76
Movement LOS	D	D	D	E	D	C	E	A	B	E	B	A
d_A, Approach Delay [s/veh]	51.36			40.90			12.44			12.39		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	14.41											
Intersection LOS	B											
Intersection V/C	0.443											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	0.00	41.41
I_p,int, Pedestrian LOS Score for Intersection	1.787	2.414	0.000	3.377
Crosswalk LOS	A	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	986	566	506
d_b, Bicycle Delay [s]	19.03	12.85	25.70	27.90
I_b,int, Bicycle LOS Score for Intersection	1.647	1.837	2.553	2.340
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	108.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.040

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rrr			rrr			rrr		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	5	9	93	6	999	435	2061	23	12	1768	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	5	9	93	6	999	435	2061	23	12	1768	35
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	26	2	283	123	584	7	3	501	10
Total Analysis Volume [veh/h]	12	6	10	105	7	1133	493	2337	26	14	2005	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	15	68	0	11	64	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.45	0.31	0.48	0.49	0.01	0.42	0.42
s, saturation flow rate [veh/h]	869	1010	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	295	352	1560	454	1762	920	27	909	472
d1, Uniform Delay [s]	28.34	31.47	14.10	37.92	20.76	20.86	51.57	37.90	37.90
k, delay calibration	0.11	0.11	0.27	0.48	0.32	0.50	0.11	0.24	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.52	1.65	66.84	4.39	12.12	14.42	218.88	228.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.32	0.73	1.09	0.88	0.88	0.52	1.48	1.48
d, Delay for Lane Group [s/veh]	28.48	31.99	15.74	104.76	25.16	32.98	65.99	256.77	266.15
Lane Group LOS	C	C	B	F	C	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.53	2.41	8.96	19.51	15.57	18.38	0.47	38.72	41.49
50th-Percentile Queue Length [ft/ln]	13.25	60.31	224.05	487.74	389.16	459.62	11.66	967.92	1037.36
95th-Percentile Queue Length [veh/ln]	0.95	4.34	13.87	28.13	22.04	25.42	0.84	59.57	63.51
95th-Percentile Queue Length [ft/ln]	23.84	108.56	346.79	703.32	550.92	635.42	20.99	1489.24	1587.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.48	28.48	28.48	31.99	31.99	15.74	104.76	27.79	32.98	65.99	259.86	266.15
Movement LOS	C	C	C	C	C	B	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	28.48			17.21			41.13			258.67		
Approach LOS	C			B			D			F		
d_I, Intersection Delay [s/veh]	108.64											
Intersection LOS	F											
Intersection V/C	1.040											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	1304
d_b, Bicycle Delay [s]	39.48	39.48	4.14	5.44
I_b,int, Bicycle LOS Score for Intersection	1.606	3.614	3.130	2.692
Bicycle LOS	A	D	C	B

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.425

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	153	657	42	60	630	93	28	60	64	37	128	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	657	42	60	630	93	28	60	64	37	128	100
Peak Hour Factor	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	181	12	17	174	26	8	17	18	10	35	28
Total Analysis Volume [veh/h]	169	726	46	66	696	103	31	66	71	41	141	110
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	31	0	14	30	0	17	34	0	11	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	11	52	52	5	45	45	3	6	6	6	10	10
g / C, Green / Cycle	0.13	0.57	0.57	0.05	0.50	0.50	0.03	0.07	0.07	0.07	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.11	0.23	0.03	0.04	0.22	0.07	0.02	0.04	0.05	0.03	0.08	0.08
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1450
c, Capacity [veh/h]	204	1840	821	82	1597	713	48	121	103	108	183	158
d1, Uniform Delay [s]	38.34	10.55	8.43	42.25	14.47	12.20	43.17	40.37	40.82	40.18	38.74	38.98
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.39	0.64	0.13	16.28	0.19	0.09	13.30	3.82	8.07	2.18	5.04	7.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.83	0.39	0.06	0.80	0.44	0.14	0.64	0.55	0.69	0.38	0.71	0.76
d, Delay for Lane Group [s/veh]	46.74	11.19	8.56	58.53	14.66	12.30	56.47	44.20	48.89	42.36	43.79	46.42
Lane Group LOS	D	B	A	E	B	B	E	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.01	3.70	0.39	1.76	4.03	1.01	0.84	1.49	1.71	0.90	2.90	2.79
50th-Percentile Queue Length [ft/ln]	100.28	92.43	9.69	43.98	100.75	25.35	20.99	37.34	42.87	22.42	72.59	69.68
95th-Percentile Queue Length [veh/ln]	7.22	6.65	0.70	3.17	7.25	1.83	1.51	2.69	3.09	1.61	5.23	5.02
95th-Percentile Queue Length [ft/ln]	180.50	166.37	17.44	79.17	181.34	45.63	37.78	67.21	77.16	40.36	130.66	125.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.74	11.19	8.56	58.53	14.66	12.30	56.47	44.20	48.89	42.36	43.98	46.42
Movement LOS	D	B	A	E	B	B	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	17.45			17.72			48.45			44.67		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.36											
Intersection LOS	C											
Intersection V/C	0.425											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.786	2.877	2.452	2.439
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	549	638	504
d_b, Bicycle Delay [s]	22.97	23.69	20.88	25.16
I_b,int, Bicycle LOS Score for Intersection	2.336	2.273	1.698	1.801
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.5
 Level Of Service: A
 Volume to Capacity (v/c): 0.189

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇌⇌⇌			⇌⇌			⇌⇌			⇌⇌⇌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	6	67	100	86	97	2	0	36	18	80	11	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	67	100	86	97	2	0	36	18	80	11	20
Peak Hour Factor	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	21	31	26	30	1	0	11	6	25	3	6
Total Analysis Volume [veh/h]	7	83	123	106	119	2	0	44	22	99	14	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	580	631	720	587	640	594	618	564	611	694
Degree of Utilization, x	0.01	0.13	0.17	0.18	0.19	0.00	0.11	0.18	0.02	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.04	0.45	0.61	0.65	0.69	0.00	0.36	0.63	0.07	0.11
95th-Percentile Queue Length [ft]	0.92	11.29	15.34	16.36	17.29	0.00	8.93	15.79	1.76	2.80
Approach Delay [s/veh]	8.95			9.89			9.23		9.84	
Approach LOS	A			A			A		A	
Intersection Delay [s/veh]	9.50									
Intersection LOS	A									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.564

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	54	20	280	151	24	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	20	280	151	24	138
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	6	79	43	7	39
Total Analysis Volume [veh/h]	61	23	316	170	27	156
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	671	862	766
Degree of Utilization, x	0.13	0.56	0.24

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	3.60	0.93
95th-Percentile Queue Length [ft]	10.67	90.02	23.25
Approach Delay [s/veh]	9.13	12.43	9.17
Approach LOS	A	B	A
Intersection Delay [s/veh]	11.27		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.0
 Level Of Service: B
 Volume to Capacity (v/c): 0.590

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	8	26	5	289	20	22	15	134	9	5	93	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	26	5	289	20	22	15	134	9	5	93	87
Peak Hour Factor	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	8	1	86	6	7	4	40	3	1	28	26
Total Analysis Volume [veh/h]	10	31	6	344	24	26	18	159	11	6	111	103
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	566	651	668	651	688
Degree of Utilization, x	0.07	0.01	0.59	0.29	0.32

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.23	0.03	3.88	1.19	1.38
95th-Percentile Queue Length [ft]	5.84	0.70	96.99	29.86	34.47
Approach Delay [s/veh]	9.40		15.85	10.77	10.68
Approach LOS	A		C	B	B
Intersection Delay [s/veh]	13.03				
Intersection LOS	B				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.015

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	38	78	22	5	49	6	8	35	12	8	35	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	78	22	5	49	6	8	35	12	8	35	5
Peak Hour Factor	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	22	6	1	14	2	2	10	3	2	10	1
Total Analysis Volume [veh/h]	43	88	25	6	55	7	9	40	14	9	40	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.01	0.01	0.06	0.01
d_M, Delay for Movement [s/veh]	7.40	0.00	0.00	7.45	0.00	0.00	11.37	11.40	9.12	11.42	11.31	9.29
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.09	0.01	0.01	0.01	0.31	0.31	0.31	0.28	0.28	0.28
95th-Percentile Queue Length [ft/ln]	2.15	2.15	2.15	0.31	0.31	0.31	7.70	7.70	7.70	6.97	6.97	6.97
d_A, Approach Delay [s/veh]	2.04			0.66			10.89			11.10		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	4.85											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.030

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	1	18	2	8	7	13	26	39	1	2	36	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	18	2	8	7	13	26	39	1	2	36	12
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	5	1	2	2	4	8	11	0	1	10	3
Total Analysis Volume [veh/h]	1	21	2	9	8	15	30	45	1	2	42	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.03	0.00	0.01	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.89	10.22	8.68	9.89	10.18	8.70	7.37	0.00	0.00	7.31	0.00	0.00
Movement LOS	A	B	A	A	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.10	0.12	0.12	0.12	0.06	0.06	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.54	2.54	2.54	2.93	2.93	2.93	1.48	1.48	1.48	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.08			9.40			2.91			0.25		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.10											
Intersection LOS	B											

EP CONDITIONS

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	8.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.451

Intersection Setup

Name	Northbound			I-15 SB Ramp			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	226	0	144	0	1046	235	0	920	522
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	226	0	144	0	1046	235	0	920	522
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	1.0000	0.9710	1.0000	0.9710	0.9710	1.0000	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	58	0	37	0	269	61	0	237	134
Total Analysis Volume [veh/h]	0	0	0	233	0	148	0	1077	242	0	947	538
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		10	10	70	70	70	70
g / C, Green / Cycle		0.11	0.11	0.78	0.78	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.07	0.06	0.23	0.17	0.21	0.38
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1431
c, Capacity [veh/h]		331	269	3556	1110	3556	1110
d1, Uniform Delay [s]		38.78	38.11	2.95	2.72	2.85	3.62
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2.74	1.75	0.22	0.45	0.18	1.52
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.70	0.55	0.30	0.22	0.27	0.48
d, Delay for Lane Group [s/veh]		41.52	39.85	3.17	3.17	3.03	5.14
Lane Group LOS		D	D	A	A	A	A
Critical Lane Group		Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]		2.52	1.56	1.13	0.80	0.96	2.41
50th-Percentile Queue Length [ft/ln]		62.94	38.95	28.27	19.91	23.95	60.31
95th-Percentile Queue Length [veh/ln]		4.53	2.80	2.04	1.43	1.72	4.34
95th-Percentile Queue Length [ft/ln]		113.29	70.11	50.88	35.83	43.10	108.56

Movement, Approach, & Intersection Results

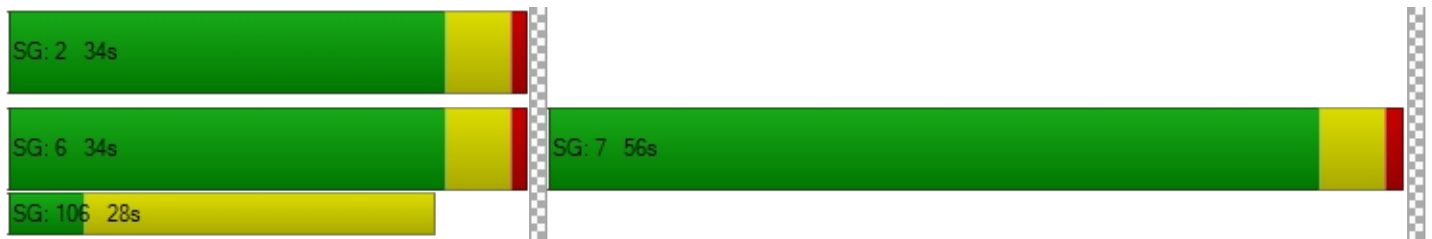
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	41.52	0.00	39.85	0.00	3.17	3.17	0.00	3.03	5.14
Movement LOS				D		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			40.87			3.17			3.80		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	7.97											
Intersection LOS	A											
Intersection V/C	0.451											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.540	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.285	2.172
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	41.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.809

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	150	1	531	0	0	0	173	1097	0	0	1281	208
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	1	531	0	0	0	173	1097	0	0	1281	208
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	0	135	0	0	0	44	279	0	0	326	52
Total Analysis Volume [veh/h]	153	1	541	0	0	0	176	1117	0	0	1304	208
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	44	44	0	0	0	0	17	56	0	0	39	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	100	100		100	100	100	100
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	39	39		12	51	34	34
g / C, Green / Cycle	0.39	0.39		0.12	0.51	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.10	0.38		0.11	0.24	0.31	0.32
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1569
c, Capacity [veh/h]	618	552		190	2331	1080	529
d1, Uniform Delay [s]	20.89	30.36		43.68	15.98	32.07	32.39
k, delay calibration	0.11	0.42		0.11	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	30.79		17.19	0.71	15.40	29.10
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.98		0.93	0.48	0.93	0.95
d, Delay for Lane Group [s/veh]	21.10	61.16		60.87	16.69	47.48	61.49
Lane Group LOS	C	E		E	B	D	E
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.37	16.65		5.09	5.24	13.40	15.47
50th-Percentile Queue Length [ft/ln]	59.30	416.23		127.32	131.08	335.02	386.85
95th-Percentile Queue Length [veh/ln]	4.27	23.34		8.79	9.00	19.40	21.93
95th-Percentile Queue Length [ft/ln]	106.74	583.53		219.85	224.96	485.11	548.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	21.10	21.10	61.16	0.00	0.00	0.00	60.87	16.69	0.00	0.00	50.66	61.49
Movement LOS	C	C	E				E	B			D	E
d_A, Approach Delay [s/veh]	52.28			0.00			22.70			52.15		
Approach LOS	D			A			C			D		
d_I, Intersection Delay [s/veh]	41.30											
Intersection LOS	D											
Intersection V/C	0.809											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.248	1.972	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	774	0	1014	674
d_b, Bicycle Delay [s]	18.79	50.00	12.15	21.98
I_b,int, Bicycle LOS Score for Intersection	2.706	4.132	2.271	2.391
Bicycle LOS	B	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	26.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.625

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	75	198	91	116	136	60	51	1548	58	66	1361	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	198	91	116	136	60	51	1548	58	66	1361	54
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	52	24	31	36	16	13	410	15	17	360	14
Total Analysis Volume [veh/h]	79	210	96	123	144	63	54	1638	61	70	1440	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	26	0	24	41	0	17	37	0	13	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	20	20	21	20	20	4	48	48	5	50	50
g / C, Green / Cycle	0.20	0.20	0.21	0.20	0.20	0.04	0.48	0.48	0.05	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.06	0.19	0.13	0.09	0.04	0.03	0.36	0.04	0.04	0.31	0.04
s, saturation flow rate [veh/h]	1296	1595	938	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	285	324	242	333	283	68	2212	690	88	2269	708
d1, Uniform Delay [s]	33.72	39.33	38.59	35.21	33.68	47.49	20.86	14.00	46.74	18.61	13.29
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	13.41	1.66	0.89	0.39	18.56	2.28	0.25	14.89	1.37	0.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.95	0.51	0.43	0.22	0.80	0.74	0.09	0.80	0.63	0.08
d, Delay for Lane Group [s/veh]	34.24	52.74	40.25	36.10	34.07	66.05	23.13	14.25	61.63	19.98	13.52
Lane Group LOS	C	D	D	D	C	E	C	B	E	B	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.59	8.24	2.58	3.07	1.28	1.63	9.45	0.72	2.01	7.45	0.65
50th-Percentile Queue Length [ft/ln]	39.64	206.06	64.38	76.72	32.02	40.64	236.29	18.06	50.22	186.14	16.27
95th-Percentile Queue Length [veh/ln]	2.85	12.95	4.64	5.52	2.31	2.93	14.49	1.30	3.62	11.92	1.17
95th-Percentile Queue Length [ft/ln]	71.34	323.77	115.89	138.10	57.64	73.15	362.34	32.50	90.40	298.01	29.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.24	52.74	52.74	40.25	36.10	34.07	66.05	23.13	14.25	61.63	19.98	13.52
Movement LOS	C	D	D	D	D	C	E	C	B	E	B	B
d_A, Approach Delay [s/veh]	48.94			37.26			24.15			21.60		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	26.60											
Intersection LOS	C											
Intersection V/C	0.625											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.379	2.476	3.424	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	406	706	626	546
d_b, Bicycle Delay [s]	31.76	20.93	23.60	26.43
I_b,int, Bicycle LOS Score for Intersection	2.195	2.104	2.524	2.421
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Signalized	Delay (sec / veh):	21.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

Intersection Setup

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	200.00	200.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	16	16	54	18	18	36	78	1633	26	25	1422	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	16	54	18	18	36	78	1633	26	25	1422	0
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	4	15	5	5	9	20	444	7	7	386	0
Total Analysis Volume [veh/h]	17	16	59	18	18	36	78	1775	28	27	1546	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	0	12	35	0	33	56	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	14	0	0	17	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	19	18	18	18	18	18	5	45	45	3	42	42
g / C, Green / Cycle	0.21	0.20	0.20	0.20	0.20	0.20	0.06	0.49	0.49	0.03	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.04	0.01	0.01	0.02	0.05	0.39	0.02	0.02	0.34	0.00
s, saturation flow rate [veh/h]	1359	1710	1454	1413	1710	1454	1629	4584	1431	1603	4584	1454
c, Capacity [veh/h]	346	348	296	265	349	297	100	2263	706	46	2114	670
d1, Uniform Delay [s]	28.93	28.89	29.83	28.98	28.86	29.28	41.76	18.87	11.80	43.28	19.76	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	0.06	0.25	1.51	0.49	0.28	0.83	12.51	0.62	0.02	11.33	0.50	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.05	0.05	0.20	0.07	0.05	0.12	0.78	0.78	0.04	0.59	0.73	0.00
d, Delay for Lane Group [s/veh]	28.99	29.14	31.35	29.47	29.14	30.12	54.27	19.49	11.82	54.61	20.26	0.00
Lane Group LOS	C	C	C	C	C	C	D	B	B	D	C	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.30	0.30	1.17	0.35	0.34	0.70	1.96	8.69	0.26	0.71	7.63	0.00
50th-Percentile Queue Length [ft/ln]	7.46	7.48	29.30	8.65	8.42	17.42	49.05	217.37	6.45	17.72	190.65	0.00
95th-Percentile Queue Length [veh/ln]	0.54	0.54	2.11	0.62	0.61	1.25	3.53	13.53	0.46	1.28	12.16	0.00
95th-Percentile Queue Length [ft/ln]	13.42	13.47	52.73	15.57	15.15	31.36	88.29	338.27	11.60	31.89	303.88	0.00

Movement, Approach, & Intersection Results

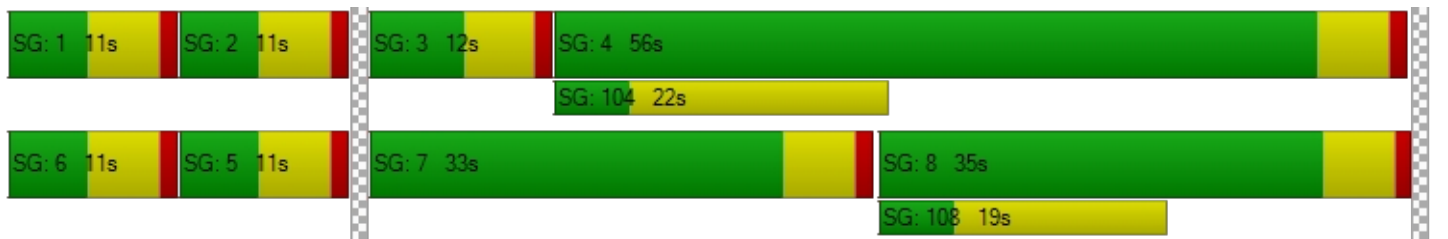
d_M, Delay for Movement [s/veh]	28.99	29.14	31.35	29.47	29.14	30.12	54.27	19.49	11.82	54.61	20.26	0.00
Movement LOS	C	C	C	C	C	C	D	B	B	D	C	A
d_A, Approach Delay [s/veh]	30.53			29.71			20.82			20.85		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	21.26											
Intersection LOS	C											
Intersection V/C	0.445											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.173	2.334	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	118	118	651	1118
d_b, Bicycle Delay [s]	39.86	39.86	20.47	8.76
I_b,int, Bicycle LOS Score for Intersection	1.636	1.678	2.594	2.425
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	19.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← →			← →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	150.00	200.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	10	43	12	138	37	86	130	1569	7	6	1298	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	43	12	138	37	86	130	1569	7	6	1298	90
Peak Hour Factor	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	12	3	38	10	23	35	428	2	2	354	25
Total Analysis Volume [veh/h]	11	47	13	150	40	94	142	1711	8	7	1415	98
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	116	14	14	17	40	0	12	35	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	6	8	8	8	11	72	72	1	61	61
g / C, Green / Cycle	0.06	0.08	0.08	0.08	0.10	0.65	0.65	0.01	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.02	0.07	0.09	0.35	0.35	0.00	0.31	0.07
s, saturation flow rate [veh/h]	1618	3113	1683	1431	1603	3204	1679	1603	4584	1431
c, Capacity [veh/h]	91	237	128	109	166	2085	1092	16	2554	797
d1, Uniform Delay [s]	51.27	49.38	48.14	50.30	48.58	10.38	10.38	54.22	15.62	11.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.13	2.78	1.37	17.52	11.95	1.01	1.93	18.35	0.87	0.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.63	0.31	0.86	0.86	0.54	0.54	0.44	0.55	0.12
d, Delay for Lane Group [s/veh]	64.40	52.16	49.51	67.83	60.53	11.39	12.30	72.58	16.49	11.91
Lane Group LOS	E	D	D	E	E	B	B	E	B	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.21	2.04	1.06	3.01	4.23	6.26	6.84	0.27	6.84	1.09
50th-Percentile Queue Length [ft/ln]	55.29	50.93	26.51	75.36	105.78	156.46	170.93	6.67	170.92	27.31
95th-Percentile Queue Length [veh/ln]	3.98	3.67	1.91	5.43	7.60	10.36	11.13	0.48	11.13	1.97
95th-Percentile Queue Length [ft/ln]	99.53	91.67	47.72	135.64	190.12	259.04	278.13	12.00	278.13	49.17

Movement, Approach, & Intersection Results

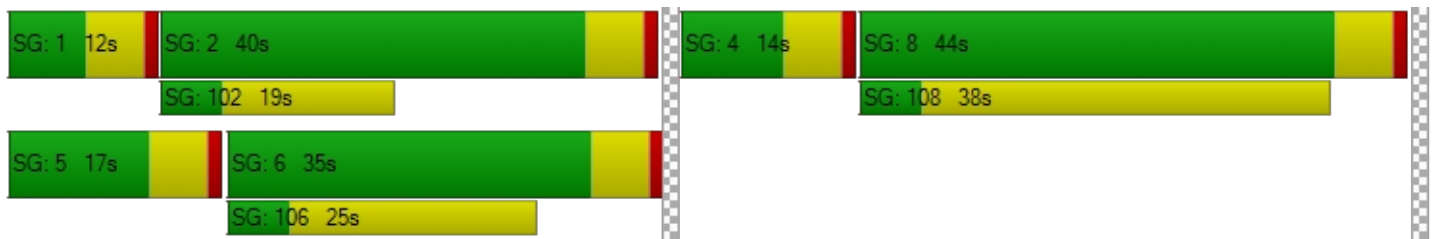
d_M, Delay for Movement [s/veh]	64.40	64.40	64.40	52.16	49.51	67.83	60.53	11.70	12.30	72.58	16.49	11.91
Movement LOS	E	E	E	D	D	E	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	64.40			56.97			15.43			16.46		
Approach LOS	E			E			B			B		
d_I, Intersection Delay [s/veh]	19.94											
Intersection LOS	B											
Intersection V/C	0.507											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	46.37
I_p,int, Pedestrian LOS Score for Intersection	1.818	2.603	0.000	3.426
Crosswalk LOS	A	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	151	624	533
d_b, Bicycle Delay [s]	23.37	47.01	26.05	29.60
I_b,int, Bicycle LOS Score for Intersection	1.677	2.028	2.583	2.396
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	113.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.079

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	5	9	93	6	1030	471	2079	23	12	1784	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	5	9	93	6	1030	471	2079	23	12	1784	35
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	26	2	292	134	589	7	3	506	10
Total Analysis Volume [veh/h]	12	6	10	105	7	1168	534	2357	26	14	2023	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	15	68	0	11	64	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.46	0.33	0.49	0.49	0.01	0.42	0.42
s, saturation flow rate [veh/h]	869	1010	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	295	352	1560	454	1762	920	27	909	472
d1, Uniform Delay [s]	28.34	31.47	14.46	37.92	20.93	21.04	51.57	37.90	37.90
k, delay calibration	0.11	0.11	0.29	0.50	0.32	0.50	0.11	0.24	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.52	1.96	100.43	4.74	12.78	14.41	224.72	233.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.32	0.75	1.18	0.89	0.89	0.52	1.49	1.50
d, Delay for Lane Group [s/veh]	28.48	31.99	16.42	138.35	25.66	33.82	65.98	262.62	271.89
Lane Group LOS	C	C	B	F	C	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.53	2.41	9.52	23.74	15.89	18.82	0.47	39.45	42.25
50th-Percentile Queue Length [ft/ln]	13.25	60.31	238.08	593.60	397.15	470.43	11.66	986.34	1056.24
95th-Percentile Queue Length [veh/ln]	0.95	4.34	14.58	34.89	22.42	25.93	0.84	60.78	64.75
95th-Percentile Queue Length [ft/ln]	23.84	108.56	364.60	872.13	560.56	648.29	20.99	1519.44	1618.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.48	28.48	28.48	31.99	31.99	16.42	138.35	28.41	33.82	65.98	265.67	271.89
Movement LOS	C	C	C	C	C	B	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	28.48			17.78			48.59			264.44		
Approach LOS	C			B			D			F		
d_I, Intersection Delay [s/veh]	113.38											
Intersection LOS	F											
Intersection V/C	1.079											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	127			127			1393			1304		
d_b, Bicycle Delay [s]	39.48			39.48			4.14			5.44		
I_b,int, Bicycle LOS Score for Intersection	1.606			3.672			3.164			2.702		
Bicycle LOS	A			D			C			B		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	23.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.448

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	153	693	42	60	661	109	46	60	64	37	128	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	693	42	60	661	109	46	60	64	37	128	100
Peak Hour Factor	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	191	12	17	183	30	13	17	18	10	35	28
Total Analysis Volume [veh/h]	169	766	46	66	730	120	51	66	71	41	141	110
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	34	0	11	29	0	16	34	0	11	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	11	51	51	5	44	44	4	6	6	7	10	10
g / C, Green / Cycle	0.13	0.56	0.56	0.05	0.49	0.49	0.04	0.07	0.07	0.08	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.11	0.24	0.03	0.04	0.23	0.08	0.03	0.04	0.05	0.03	0.08	0.08
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1450
c, Capacity [veh/h]	204	1808	807	82	1565	699	64	120	102	124	183	158
d1, Uniform Delay [s]	38.34	11.23	8.83	42.27	15.26	12.86	42.83	40.38	40.83	39.31	38.74	38.98
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.39	0.73	0.13	16.56	0.22	0.12	19.00	3.84	8.12	1.53	5.04	7.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.83	0.42	0.06	0.81	0.47	0.17	0.79	0.55	0.69	0.33	0.71	0.76
d, Delay for Lane Group [s/veh]	46.74	11.96	8.96	58.83	15.48	12.98	61.83	44.23	48.94	40.84	43.79	46.42
Lane Group LOS	D	B	A	E	B	B	E	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.01	4.10	0.40	1.76	4.41	1.23	1.43	1.49	1.72	0.87	2.90	2.79
50th-Percentile Queue Length [ft/ln]	100.28	102.45	10.00	44.12	110.17	30.76	35.72	37.35	42.90	21.84	72.59	69.68
95th-Percentile Queue Length [veh/ln]	7.22	7.38	0.72	3.18	7.85	2.21	2.57	2.69	3.09	1.57	5.23	5.02
95th-Percentile Queue Length [ft/ln]	180.50	184.41	17.99	79.41	196.23	55.37	64.29	67.23	77.22	39.30	130.66	125.42

Movement, Approach, & Intersection Results

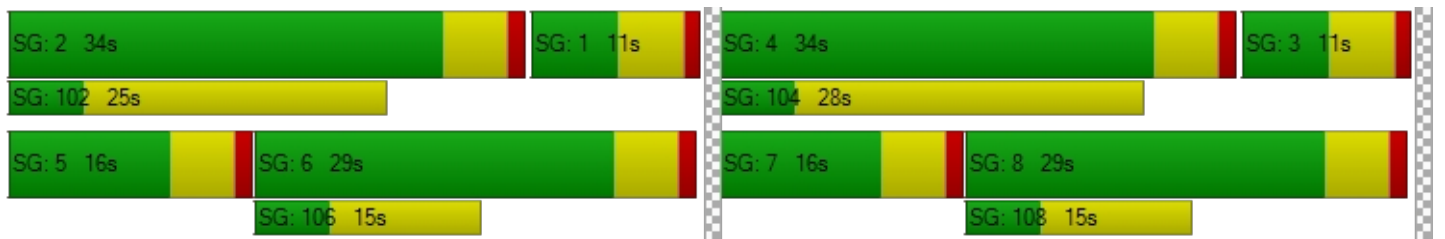
d_M, Delay for Movement [s/veh]	46.74	11.96	8.96	58.83	15.48	12.98	61.83	44.23	48.94	40.84	43.98	46.42
Movement LOS	D	B	A	E	B	B	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	17.81			18.28			50.78			44.46		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.87											
Intersection LOS	C											
Intersection V/C	0.448											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.800	2.904	2.462	2.439
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	638	527	638	527
d_b, Bicycle Delay [s]	20.88	24.42	20.88	24.42
I_b,int, Bicycle LOS Score for Intersection	2.369	2.315	1.715	1.801
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type:	All-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.228

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	6	85	118	86	113	2	0	36	18	96	11	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	85	118	86	113	2	0	36	18	96	11	20
Peak Hour Factor	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	26	36	26	35	1	0	11	6	30	3	6
Total Analysis Volume [veh/h]	7	105	145	106	139	2	0	44	22	118	14	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	566	614	697	568	618	569	591	546	591	667
Degree of Utilization, x	0.01	0.17	0.21	0.19	0.23	0.00	0.11	0.22	0.02	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.04	0.61	0.78	0.68	0.87	0.00	0.37	0.81	0.07	0.12
95th-Percentile Queue Length [ft]	0.94	15.34	19.49	17.01	21.87	0.00	9.37	20.37	1.82	2.92
Approach Delay [s/veh]	9.45			10.35			9.55		10.47	
Approach LOS	A			B			A		B	
Intersection Delay [s/veh]	9.98									
Intersection LOS	A									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.575

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	54	38	280	151	40	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	38	280	151	40	138
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	11	79	43	11	39
Total Analysis Volume [veh/h]	61	43	316	170	45	156
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	678	845	752
Degree of Utilization, x	0.15	0.57	0.27

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.54	3.74	1.08
95th-Percentile Queue Length [ft]	13.50	93.60	26.94
Approach Delay [s/veh]	9.27	12.85	9.52
Approach LOS	A	B	A
Intersection Delay [s/veh]	11.54		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.2
 Level Of Service: C
 Volume to Capacity (v/c): 0.677

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	26	62	5	289	51	22	15	134	25	5	93	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	62	5	289	51	22	15	134	25	5	93	87
Peak Hour Factor	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	18	1	86	15	7	4	40	7	1	28	26
Total Analysis Volume [veh/h]	31	74	6	344	61	26	18	159	30	6	111	103
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	542	623	637	611	634
Degree of Utilization, x	0.19	0.01	0.68	0.34	0.35

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.71	0.03	5.23	1.49	1.55
95th-Percentile Queue Length [ft]	17.79	0.73	130.72	37.37	38.69
Approach Delay [s/veh]	10.80		19.68	11.89	11.66
Approach LOS	B		C	B	B
Intersection Delay [s/veh]	15.18				
Intersection LOS	C				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.027

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	38	87	22	5	60	13	14	35	12	8	35	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	87	22	5	60	13	14	35	12	8	35	5
Peak Hour Factor	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	25	6	1	17	4	4	10	3	2	10	1
Total Analysis Volume [veh/h]	43	98	25	6	68	15	16	40	14	9	40	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.01	0.02	0.07	0.01
d_M, Delay for Movement [s/veh]	7.45	0.00	0.00	7.47	0.00	0.00	11.75	11.74	9.33	11.73	11.59	9.38
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.09	0.01	0.01	0.01	0.36	0.36	0.36	0.29	0.29	0.29
95th-Percentile Queue Length [ft/ln]	2.19	2.19	2.19	0.31	0.31	0.31	9.09	9.09	9.09	7.27	7.27	7.27
d_A, Approach Delay [s/veh]	1.93			0.50			11.26			11.37		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	4.68											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.056

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	1	34	2	8	25	13	26	39	1	2	36	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	34	2	8	25	13	26	39	1	2	36	12
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	1	2	7	4	8	11	0	1	10	3
Total Analysis Volume [veh/h]	1	40	2	9	29	15	30	45	1	2	42	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.06	0.00	0.01	0.04	0.01	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.22	10.37	8.83	10.23	10.35	8.86	7.37	0.00	0.00	7.31	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.19	0.19	0.22	0.22	0.22	0.06	0.06	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.74	4.74	4.74	5.40	5.40	5.40	1.48	1.48	1.48	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.30			9.91			2.91			0.25		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	5.23											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 13: Dwy 1/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.0
 Level Of Service: C
 Volume to Capacity (v/c): 0.155

Intersection Setup

Name	3rd		3rd		Dwy 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		↙↑↑		↔	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 1	
Base Volume Input [veh/h]	358	20	10	391	66	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	358	20	10	391	66	34
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	91	5	3	100	17	9
Total Analysis Volume [veh/h]	365	20	10	399	67	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.16	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	8.10	0.00	15.05	11.12
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	0.73	0.73
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.65	0.00	18.25	18.25
d_A, Approach Delay [s/veh]	0.00		0.20		13.70	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.65					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 14: Dwy 2/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.9
 Level Of Service: C
 Volume to Capacity (v/c): 0.085

Intersection Setup

Name	3rd		3rd		Dwy 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		←↑↑		↑	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 2	
Base Volume Input [veh/h]	310	100	57	381	30	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	310	100	57	381	30	39
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	79	26	15	97	8	10
Total Analysis Volume [veh/h]	316	102	58	389	31	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.08	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.33	0.00	15.89	10.58
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.16	0.00	0.46	0.46
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.02	0.00	11.59	11.59
d_A, Approach Delay [s/veh]	0.00		1.08		12.90	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.49					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 15: Bear Valley/Dwy 3**

Control Type:	Two-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.075

Intersection Setup

Name	Dwy 3		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↻				↻	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 3		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	24	0	1714	1396	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	24	0	1714	1396	23
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	0	437	356	6
Total Analysis Volume [veh/h]	0	24	0	1749	1424	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	17.10	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.24	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	6.01	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.10		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 16: Bear Valley/Dwy 4**

Control Type:	Two-way stop	Delay (sec / veh):	17.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.152

Intersection Setup

Name	Dwy 4		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 4		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	49	0	1714	1370	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	0	1714	1370	40
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	437	349	10
Total Analysis Volume [veh/h]	0	50	0	1749	1398	41
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.15	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	17.94	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.53	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	13.29	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.94		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 17: Bear Valley/Dwy 5**

Control Type:	Two-way stop	Delay (sec / veh):	17.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.152

Intersection Setup

Name	Dwy 5		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 5		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	49	0	1714	1366	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	0	1714	1366	40
Peak Hour Factor	1.0000	0.9800	1.0000	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	437	348	10
Total Analysis Volume [veh/h]	0	50	0	1749	1394	41
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.15	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	17.90	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.53	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	13.24	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.90		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 18: Dwy 6/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.046

Intersection Setup

Name	2nd		2nd		Dwy 6	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	70.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 6	
Base Volume Input [veh/h]	67	197	189	23	24	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	197	189	23	24	88
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	50	48	6	6	22
Total Analysis Volume [veh/h]	68	201	193	23	24	90
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.05	0.10
d_M, Delay for Movement [s/veh]	7.81	0.00	0.00	0.00	12.72	9.65
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.50	0.50
95th-Percentile Queue Length [ft/ln]	3.97	0.00	0.00	0.00	12.51	12.51
d_A, Approach Delay [s/veh]	1.97		0.00		10.30	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.85					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 19: Dwy 7/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.042

Intersection Setup

Name	2nd		2nd		Dwy 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 7	
Base Volume Input [veh/h]	44	170	190	13	24	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	170	190	13	24	24
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	43	48	3	6	6
Total Analysis Volume [veh/h]	45	173	194	13	24	24
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.04	0.03
d_M, Delay for Movement [s/veh]	7.73	0.00	0.00	0.00	11.60	9.23
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.00	0.22	0.22
95th-Percentile Queue Length [ft/ln]	2.56	0.00	0.00	0.00	5.40	5.40
d_A, Approach Delay [s/veh]	1.60		0.00		10.41	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.79					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 20: Dwy 8/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.0
 Level Of Service: A
 Volume to Capacity (v/c): 0.037

Intersection Setup

Name	2nd		2nd		Dwy 8	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	⇕		⇕⇨		⇨	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 8	
Base Volume Input [veh/h]	0	203	178	10	0	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	203	178	10	0	34
Peak Hour Factor	0.9200	0.9800	0.9800	0.9800	0.9200	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	52	45	3	0	9
Total Analysis Volume [veh/h]	0	207	182	10	0	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.97
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	2.89
d_A, Approach Delay [s/veh]	0.00		0.00		8.97	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.72					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

Intersection Setup

Name	I-15 SB Ramp			Bear Valley			Bear Valley					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	324	0	391	0	1555	272	0	1569	390
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	324	0	391	0	1555	272	0	1569	390
Peak Hour Factor	0.9710	0.9710	0.9710	0.9640	1.0000	0.9640	1.0000	0.9640	0.9640	1.0000	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	84	0	101	0	403	71	0	407	101
Total Analysis Volume [veh/h]	0	0	0	336	0	406	0	1613	282	0	1628	405
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0	
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0	
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0	
Delayed Vehicle Green [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	
Rest In Walk				No				No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	
Minimum Recall				No				No			No		
Maximum Recall				No				No			No		
Pedestrian Recall				No				No			No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		18	18	61	61	61	61
g / C, Green / Cycle		0.20	0.20	0.68	0.68	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate		0.11	0.16	0.35	0.20	0.33	0.34
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1475
c, Capacity [veh/h]		615	500	3137	979	3137	1010
d1, Uniform Delay [s]		32.37	34.39	6.90	5.57	6.70	6.82
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.76	3.22	0.61	0.74	0.54	1.79
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.55	0.81	0.51	0.29	0.49	0.50
d, Delay for Lane Group [s/veh]		33.13	37.61	7.51	6.31	7.24	8.61
Lane Group LOS		C	D	A	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		3.21	4.26	3.95	1.80	3.62	4.03
50th-Percentile Queue Length [ft/ln]		80.14	106.40	98.75	45.00	90.54	100.75
95th-Percentile Queue Length [veh/ln]		5.77	7.64	7.11	3.24	6.52	7.25
95th-Percentile Queue Length [ft/ln]		144.25	190.98	177.74	80.99	162.98	181.35

Movement, Approach, & Intersection Results

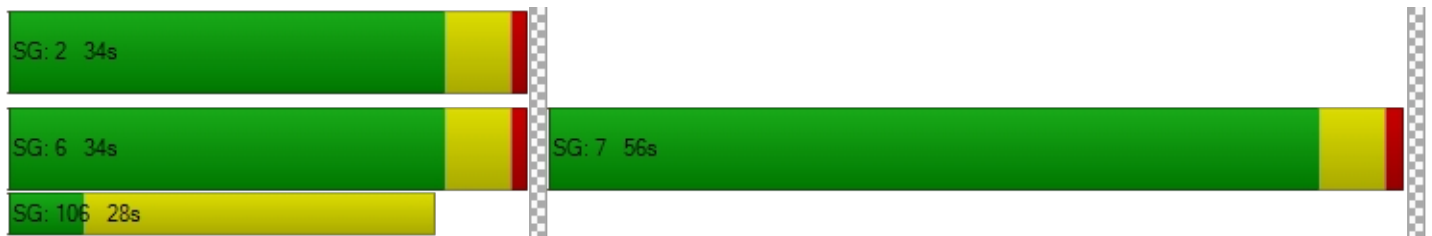
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	33.13	0.00	37.61	0.00	7.51	6.31	0.00	7.33	8.61
Movement LOS				C		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			35.58			7.33			7.59		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	11.93											
Intersection LOS	B											
Intersection V/C	0.512											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.600	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.602	2.398
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	83.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.004

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	379	2	617	0	0	0	271	1577	0	0	1624	201
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	379	2	617	0	0	0	271	1577	0	0	1624	201
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	97	1	158	0	0	0	69	403	0	0	415	51
Total Analysis Volume [veh/h]	387	2	630	0	0	0	277	1611	0	0	1659	205
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	46	46	0	0	0	0	22	64	0	0	42	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	110	110		110	110	110	110
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	41	41		17	59	37	37
g / C, Green / Cycle	0.37	0.37		0.15	0.53	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.24	0.44		0.17	0.35	0.39	0.39
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1590
c, Capacity [veh/h]	591	527		245	2453	1070	531
d1, Uniform Delay [s]	28.94	34.72		46.58	18.33	36.62	36.62
k, delay calibration	0.19	0.50		0.16	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.21	105.08		75.19	1.39	83.09	95.14
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	1.19		1.13	0.66	1.16	1.17
d, Delay for Lane Group [s/veh]	31.15	139.80		121.77	19.72	119.71	131.76
Lane Group LOS	C	F		F	B	F	F
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.55	28.70		11.64	9.33	26.02	27.61
50th-Percentile Queue Length [ft/ln]	213.64	717.43		290.95	233.30	650.53	690.20
95th-Percentile Queue Length [veh/ln]	13.34	41.98		18.21	14.34	37.76	39.96
95th-Percentile Queue Length [ft/ln]	333.50	1049.61		455.16	358.55	943.98	999.09

Movement, Approach, & Intersection Results

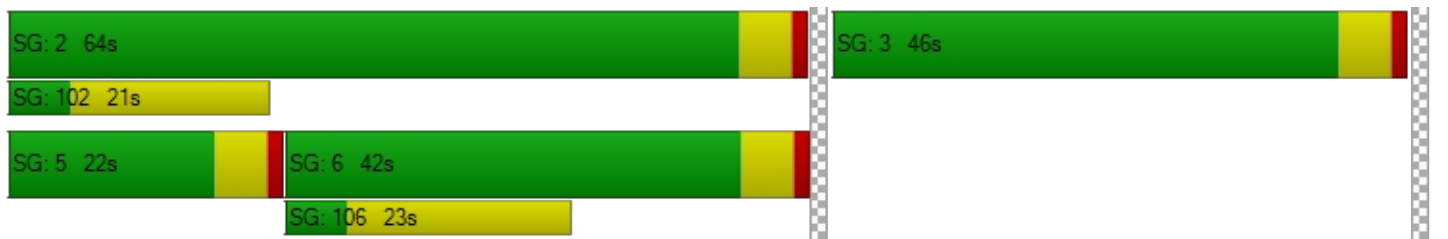
d_M, Delay for Movement [s/veh]	31.15	31.15	139.80	0.00	0.00	0.00	121.77	19.72	0.00	0.00	122.74	131.76
Movement LOS	C	C	F				F	B			F	F
d_A, Approach Delay [s/veh]	98.32			0.00			34.70			123.73		
Approach LOS	F			A			C			F		
d_I, Intersection Delay [s/veh]	83.07											
Intersection LOS	F											
Intersection V/C	1.004											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.393	2.041	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	740	0	1067	667
d_b, Bicycle Delay [s]	21.83	55.00	11.96	24.42
I_b,int, Bicycle LOS Score for Intersection	3.241	4.132	2.598	2.585
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	38.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.733

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	105	245	103	150	295	92	93	1728	114	117	1609	129
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	105	245	103	150	295	92	93	1728	114	117	1609	129
Peak Hour Factor	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	62	26	38	75	23	24	439	29	30	409	33
Total Analysis Volume [veh/h]	107	249	105	152	300	93	95	1756	116	119	1635	131
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	38	0	12	41	0	27	44	0	16	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	26	26	30	28	28	8	46	46	10	47	47
g / C, Green / Cycle	0.24	0.24	0.27	0.26	0.26	0.07	0.41	0.41	0.09	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.09	0.22	0.12	0.18	0.07	0.06	0.38	0.08	0.07	0.36	0.09
s, saturation flow rate [veh/h]	1146	1599	1260	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	217	385	252	432	367	118	1898	592	143	1969	614
d1, Uniform Delay [s]	35.54	40.76	42.29	36.99	32.51	50.19	30.63	20.56	49.31	27.84	19.72
k, delay calibration	0.11	0.20	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.73	15.33	2.31	2.02	0.36	11.96	9.22	0.74	11.75	4.24	0.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.92	0.60	0.69	0.25	0.80	0.93	0.20	0.83	0.83	0.21
d, Delay for Lane Group [s/veh]	37.27	56.09	44.60	39.01	32.87	62.15	39.85	21.30	61.06	32.08	20.51
Lane Group LOS	D	E	D	D	C	E	D	C	E	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.36	10.57	3.34	7.33	1.97	2.87	15.01	1.90	3.56	12.33	2.10
50th-Percentile Queue Length [ft/ln]	58.93	264.27	83.53	183.16	49.17	71.71	375.18	47.57	88.94	308.14	52.54
95th-Percentile Queue Length [veh/ln]	4.24	15.90	6.01	11.77	3.54	5.16	21.36	3.42	6.40	18.08	3.78
95th-Percentile Queue Length [ft/ln]	106.07	397.57	150.35	294.14	88.51	129.08	534.01	85.62	160.09	452.09	94.58

Movement, Approach, & Intersection Results

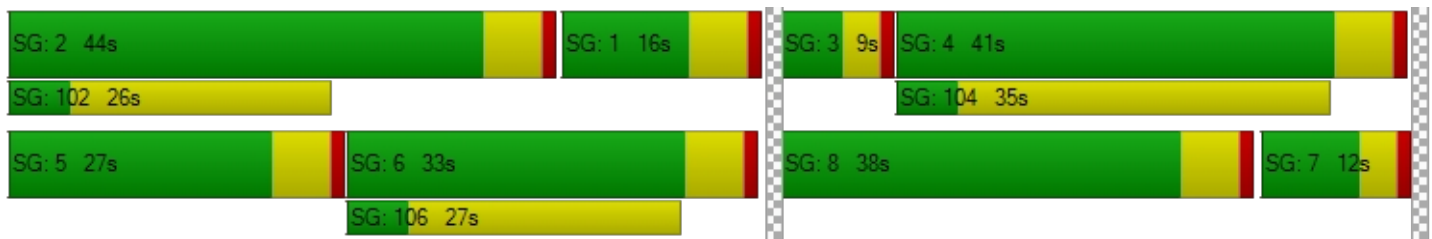
d_M, Delay for Movement [s/veh]	37.27	56.09	56.09	44.60	39.01	32.87	62.15	39.85	21.30	61.06	32.08	20.51
Movement LOS	D	E	E	D	D	C	E	D	C	E	C	C
d_A, Approach Delay [s/veh]	51.72			39.52			39.83			33.11		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	38.32											
Intersection LOS	D											
Intersection V/C	0.733											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	46.37	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.506	2.576	3.535	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	587	642	696	496
d_b, Bicycle Delay [s]	27.44	25.36	23.37	31.09
I_b,int, Bicycle LOS Score for Intersection	2.320	2.459	2.641	2.596
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.518

Intersection Setup

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	200.00	200.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	18	21	65	20	20	39	106	1830	62	44	1805	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	21	65	20	20	39	106	1830	62	44	1805	0
Peak Hour Factor	0.9700	1.0000	0.9700	1.0000	1.0000	1.0000	1.0000	0.9700	0.9700	0.9700	0.9700	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	17	5	5	10	27	472	16	11	465	0
Total Analysis Volume [veh/h]	19	21	67	20	20	39	106	1887	64	45	1861	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	0	13	34	0	34	55	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	23	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	13	13	13	13	13	13	7	48	48	3	45	45
g / C, Green / Cycle	0.15	0.15	0.15	0.15	0.15	0.15	0.08	0.54	0.54	0.04	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.05	0.01	0.01	0.03	0.07	0.41	0.04	0.03	0.41	0.00
s, saturation flow rate [veh/h]	1399	1710	1454	1495	1710	1454	1629	4584	1431	1603	4584	1454
c, Capacity [veh/h]	312	254	216	221	256	217	133	2460	767	62	2265	718
d1, Uniform Delay [s]	33.09	33.10	34.28	33.17	33.02	33.53	40.71	16.47	10.14	42.87	19.44	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	0.08	0.64	3.71	0.81	0.60	1.81	10.49	0.52	0.05	14.50	0.78	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.06	0.08	0.31	0.09	0.08	0.18	0.80	0.77	0.08	0.72	0.82	0.00
d, Delay for Lane Group [s/veh]	33.17	33.74	37.98	33.97	33.61	35.34	51.20	16.99	10.19	57.37	20.22	0.00
Lane Group LOS	C	C	D	C	C	D	D	B	B	E	C	A
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.36	0.44	1.52	0.42	0.41	0.85	2.56	8.44	0.53	1.19	9.41	0.00
50th-Percentile Queue Length [ft/ln]	9.03	10.92	37.91	10.55	10.37	21.16	64.11	210.97	13.28	29.75	235.13	0.00
95th-Percentile Queue Length [veh/ln]	0.65	0.79	2.73	0.76	0.75	1.52	4.62	13.20	0.96	2.14	14.43	0.00
95th-Percentile Queue Length [ft/ln]	16.26	19.65	68.23	19.00	18.67	38.09	115.40	330.07	23.91	53.55	360.87	0.00

Movement, Approach, & Intersection Results

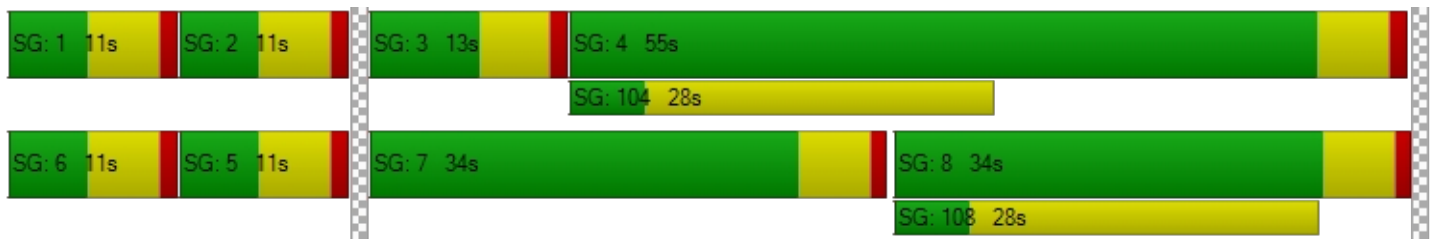
d_M, Delay for Movement [s/veh]	33.17	33.74	37.98	33.97	33.61	35.34	51.20	16.99	10.19	57.37	20.22	0.00
Movement LOS	C	C	D	C	C	D	D	B	B	E	C	A
d_A, Approach Delay [s/veh]	36.29			34.56			18.54			21.10		
Approach LOS	D			C			B			C		
d_I, Intersection Delay [s/veh]	20.48											
Intersection LOS	C											
Intersection V/C	0.518											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.190	2.342	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	118	118	629	1096
d_b, Bicycle Delay [s]	39.86	39.86	21.15	9.20
I_b,int, Bicycle LOS Score for Intersection	1.648	1.690	2.691	2.608
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	27.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.647

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← →			← →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	150.00	200.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
	24	46	29	181	57	145	147	1707	21	23	1675	109
Base Volume Input [veh/h]	24	46	29	181	57	145	147	1707	21	23	1675	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	46	29	181	57	145	147	1707	21	23	1675	109
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	12	8	47	15	38	38	445	5	6	437	28
Total Analysis Volume [veh/h]	25	48	30	189	59	151	153	1782	22	24	1748	114
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	116	18	18	17	31	0	17	31	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	9	12	12	12	11	63	63	3	55	55
g / C, Green / Cycle	0.08	0.11	0.11	0.11	0.10	0.58	0.58	0.02	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.07	0.06	0.04	0.11	0.10	0.37	0.37	0.01	0.38	0.08
s, saturation flow rate [veh/h]	1582	3113	1683	1431	1603	3204	1672	1603	4584	1431
c, Capacity [veh/h]	129	350	189	161	166	1842	961	40	2274	710
d1, Uniform Delay [s]	49.71	46.19	44.97	48.51	48.95	15.81	15.81	53.17	22.60	15.19
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.85	1.30	0.93	21.20	18.57	1.75	3.32	14.02	2.57	0.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.54	0.31	0.94	0.92	0.64	0.64	0.61	0.77	0.16
d, Delay for Lane Group [s/veh]	60.56	47.50	45.90	69.71	67.52	17.55	19.13	67.20	25.16	15.68
Lane Group LOS	E	D	D	E	E	B	B	E	C	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.09	2.44	1.49	4.93	4.85	9.08	9.90	0.79	11.45	1.53
50th-Percentile Queue Length [ft/ln]	77.27	60.89	37.27	123.18	121.28	226.90	247.62	19.72	286.34	38.28
95th-Percentile Queue Length [veh/ln]	5.56	4.38	2.68	8.57	8.46	14.02	15.07	1.42	17.00	2.76
95th-Percentile Queue Length [ft/ln]	139.08	109.61	67.08	214.19	211.58	350.42	376.65	35.49	425.09	68.90

Movement, Approach, & Intersection Results

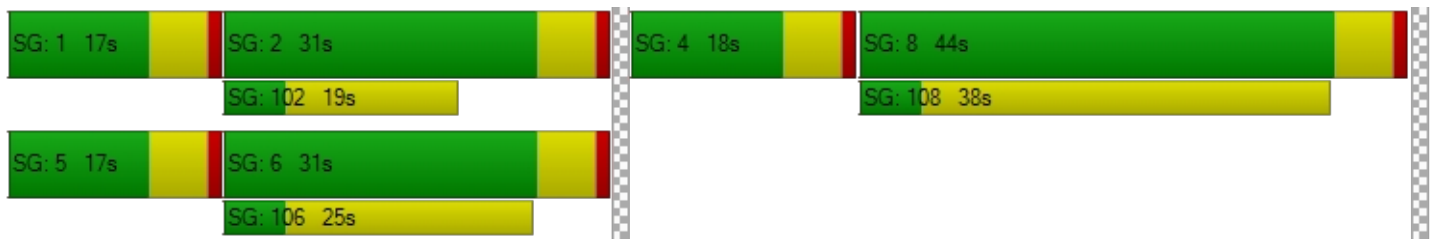
d_M, Delay for Movement [s/veh]	60.56	60.56	60.56	47.50	45.90	69.71	67.52	18.08	19.13	67.20	25.16	15.68
Movement LOS	E	E	E	D	D	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	60.56			55.67			21.96			25.12		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	27.34											
Intersection LOS	C											
Intersection V/C	0.647											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	46.37
I_p,int, Pedestrian LOS Score for Intersection	1.878	2.638	0.000	3.526
Crosswalk LOS	A	B	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	224	460	460
d_b, Bicycle Delay [s]	23.37	43.39	32.61	32.61
I_b,int, Bicycle LOS Score for Intersection	1.730	2.218	2.636	2.597
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	113.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.094

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	21	5	9	86	1	755	695	2633	9	3	1876	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	5	9	86	1	755	695	2633	9	3	1876	39
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	2	23	0	201	185	700	2	1	498	10
Total Analysis Volume [veh/h]	22	5	10	91	1	802	739	2798	10	3	1994	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	67	68	0	11	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	99	99	99	99	99	99	99	99	99
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	23	23	58	30	60	60	0	30	30
g / C, Green / Cycle	0.23	0.23	0.59	0.30	0.60	0.60	0.00	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.04	0.08	0.32	0.46	0.57	0.58	0.00	0.42	0.42
s, saturation flow rate [veh/h]	888	1143	2532	1603	3204	1680	1603	3204	1666
c, Capacity [veh/h]	264	338	1493	487	1928	1011	8	971	505
d1, Uniform Delay [s]	31.69	31.90	12.17	34.37	18.40	18.45	48.95	34.40	34.40
k, delay calibration	0.11	0.11	0.11	0.50	0.38	0.50	0.11	0.20	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	0.43	0.30	243.36	10.11	19.58	24.93	172.72	183.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.27	0.54	1.52	0.95	0.96	0.36	1.38	1.38
d, Delay for Lane Group [s/veh]	31.92	32.33	12.47	277.73	28.51	38.03	73.88	207.12	217.54
Lane Group LOS	C	C	B	F	C	D	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.79	1.87	4.98	43.80	18.65	22.28	0.13	34.15	36.96
50th-Percentile Queue Length [ft/ln]	19.83	46.86	124.57	1095.00	466.15	557.06	3.21	853.78	924.12
95th-Percentile Queue Length [veh/ln]	1.43	3.37	8.64	67.53	25.73	30.02	0.23	51.99	55.90
95th-Percentile Queue Length [ft/ln]	35.69	84.35	216.09	1688.24	643.20	750.60	5.78	1299.69	1397.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.92	31.92	31.92	32.33	32.33	12.47	277.73	31.77	38.03	73.88	210.55	217.54
Movement LOS	C	C	C	C	C	B	F	C	D	E	F	F
d_A, Approach Delay [s/veh]	31.92			14.52			83.03			210.49		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	113.21											
Intersection LOS	F											
Intersection V/C	1.094											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	127			127			1393			149		
d_b, Bicycle Delay [s]	39.48			39.48			4.14			38.55		
I_b,int, Bicycle LOS Score for Intersection	1.621			3.035			3.510			2.681		
Bicycle LOS	A			C			D			B		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	26.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.539

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	142	1001	41	89	714	81	87	101	138	50	71	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	142	1001	41	89	714	81	87	101	138	50	71	116
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	269	11	24	192	22	23	27	37	13	19	31
Total Analysis Volume [veh/h]	152	1074	44	95	766	87	93	108	148	54	76	124
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	31	0	14	31	0	11	34	0	11	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	10	46	46	7	42	42	7	12	12	5	10	10
g / C, Green / Cycle	0.12	0.51	0.51	0.07	0.46	0.46	0.07	0.13	0.13	0.06	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.09	0.34	0.03	0.06	0.24	0.06	0.06	0.06	0.10	0.03	0.05	0.09
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1431
c, Capacity [veh/h]	185	1624	725	118	1489	665	118	217	184	89	186	158
d1, Uniform Delay [s]	38.89	16.47	11.30	41.07	16.95	13.73	41.03	36.50	38.10	41.58	37.28	38.97
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.63	2.13	0.16	12.06	0.28	0.09	11.15	1.76	7.87	6.62	1.43	8.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.82	0.66	0.06	0.81	0.51	0.13	0.79	0.50	0.80	0.61	0.41	0.78
d, Delay for Lane Group [s/veh]	47.52	18.60	11.46	53.13	17.23	13.82	52.18	38.26	45.97	48.19	38.70	47.12
Lane Group LOS	D	B	B	D	B	B	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.64	7.92	0.45	2.37	5.00	0.93	2.32	2.23	3.45	1.28	1.56	2.89
50th-Percentile Queue Length [ft/ln]	90.89	198.09	11.26	59.36	124.91	23.13	58.06	55.87	86.20	32.09	39.00	72.35
95th-Percentile Queue Length [veh/ln]	6.54	12.54	0.81	4.27	8.66	1.67	4.18	4.02	6.21	2.31	2.81	5.21
95th-Percentile Queue Length [ft/ln]	163.60	313.50	20.28	106.84	216.55	41.64	104.52	100.57	155.16	57.77	70.20	130.22

Movement, Approach, & Intersection Results

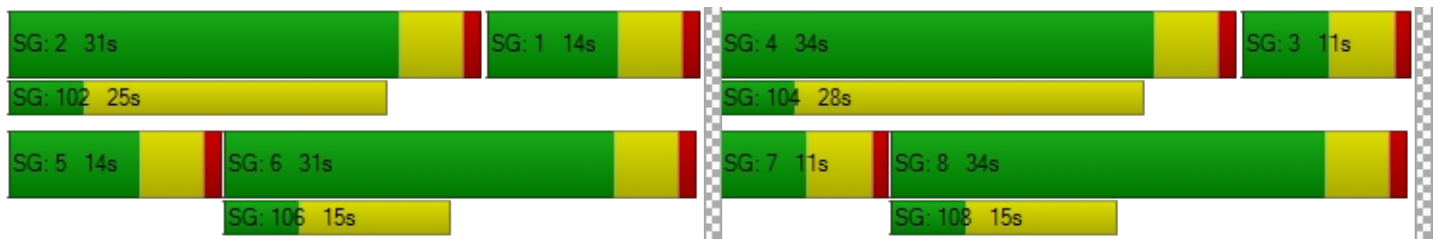
d_M, Delay for Movement [s/veh]	47.52	18.60	11.46	53.13	17.23	13.82	52.18	38.26	45.97	48.19	38.70	47.12
Movement LOS	D	B	B	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	21.81			20.51			45.24			44.83		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	26.35											
Intersection LOS	C											
Intersection V/C	0.539											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.879	3.000	2.474	2.448
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	571	638	638
d_b, Bicycle Delay [s]	22.97	22.97	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	2.607	2.342	1.848	1.769
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type:	All-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.301

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	22	115	123	42	98	1	0	13	14	139	15	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	115	123	42	98	1	0	13	14	139	15	85
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	35	37	13	30	0	0	4	4	42	5	26
Total Analysis Volume [veh/h]	27	139	149	51	119	1	0	16	17	168	18	103
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	560	606	687	541	585	559	591	559	605	685
Degree of Utilization, x	0.05	0.23	0.22	0.09	0.21	0.00	0.06	0.30	0.03	0.15

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.15	0.88	0.82	0.31	0.76	0.00	0.18	1.26	0.09	0.53
95th-Percentile Queue Length [ft]	3.80	21.98	20.51	7.78	19.11	0.00	4.42	31.42	2.30	13.18
Approach Delay [s/veh]	9.84			10.32			9.15		10.62	
Approach LOS	A			B			A		B	
Intersection Delay [s/veh]	10.19									
Intersection LOS	B									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type:	All-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.414

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↔		↗		↖	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	157	42	150	98	47	171
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	157	42	150	98	47	171
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	13	47	31	15	53
Total Analysis Volume [veh/h]	196	53	188	123	59	214
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	669	752	706
Degree of Utilization, x	0.37	0.41	0.39

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.72	2.04	1.83
95th-Percentile Queue Length [ft]	43.04	51.03	45.73
Approach Delay [s/veh]	11.53	11.13	11.28
Approach LOS	B	B	B
Intersection Delay [s/veh]	11.30		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.567

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	31	60	3	142	83	47	38	103	28	4	163	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	60	3	142	83	47	38	103	28	4	163	150
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	18	1	42	25	14	11	31	8	1	49	45
Total Analysis Volume [veh/h]	37	71	4	169	99	56	45	123	33	5	194	179
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	517	592	605	607	666
Degree of Utilization, x	0.21	0.01	0.54	0.33	0.57

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.78	0.02	3.17	1.44	3.58
95th-Percentile Queue Length [ft]	19.52	0.51	79.22	36.09	89.38
Approach Delay [s/veh]	11.40		15.58	11.83	15.23
Approach LOS	B		C	B	C
Intersection Delay [s/veh]	14.25				
Intersection LOS	B				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.039

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	46	81	12	8	103	23	20	55	18	19	88	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	81	12	8	103	23	20	55	18	19	88	7
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	21	3	2	27	6	5	15	5	5	23	2
Total Analysis Volume [veh/h]	49	86	13	8	109	24	21	58	19	20	93	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.01	0.00	0.00	0.04	0.10	0.02	0.04	0.17	0.01
d_M, Delay for Movement [s/veh]	7.57	0.00	0.00	7.42	0.00	0.00	13.62	12.63	10.09	13.69	13.17	10.45
Movement LOS	A	A	A	A	A	A	B	B	B	B	B	B
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.10	0.02	0.02	0.02	0.59	0.59	0.59	0.80	0.80	0.80
95th-Percentile Queue Length [ft/ln]	2.62	2.62	2.62	0.40	0.40	0.40	14.87	14.87	14.87	19.98	19.98	19.98
d_A, Approach Delay [s/veh]	2.51			0.42			12.35			13.10		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	6.34											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.0
 Level Of Service: B
 Volume to Capacity (v/c): 0.089

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	0	44	0	17	58	26	19	60	2	2	76	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	44	0	17	58	26	19	60	2	2	76	14
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	0	4	15	7	5	16	1	1	20	4
Total Analysis Volume [veh/h]	0	46	0	18	61	27	20	63	2	2	80	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.03	0.09	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.00	10.65	8.98	11.01	11.03	9.51	7.43	0.00	0.00	7.35	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.22	0.50	0.50	0.50	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.40	5.40	5.40	12.38	12.38	12.38	1.01	1.01	1.01	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.65			10.64			1.75			0.15		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.33											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 13: Dwy 1/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 23.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.171

Intersection Setup

Name	3rd		3rd		Dwy 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		←↑↑		↑	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 1	
Base Volume Input [veh/h]	557	67	33	634	39	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	557	67	33	634	39	19
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	142	17	8	162	10	5
Total Analysis Volume [veh/h]	568	68	34	647	40	19
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.04	0.01	0.17	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	8.96	0.00	23.43	13.32
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.11	0.00	0.73	0.73
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.80	0.00	18.24	18.24
d_A, Approach Delay [s/veh]	0.00		0.45		20.18	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.09					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 14: Dwy 2/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 28.2
 Level Of Service: D
 Volume to Capacity (v/c): 0.305

Intersection Setup

Name	3rd		3rd		Dwy 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		←↑↑		↑	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 2	
Base Volume Input [veh/h]	538	87	52	609	67	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	538	87	52	609	67	60
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	137	22	13	155	17	15
Total Analysis Volume [veh/h]	549	89	53	621	68	61
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.06	0.01	0.31	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.05	0.00	28.18	17.34
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.18	0.00	1.83	1.83
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.47	0.00	45.63	45.63
d_A, Approach Delay [s/veh]	0.00		0.71		23.05	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.40					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 15: Bear Valley/Dwy 3**

Control Type:	Two-way stop	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.122

Intersection Setup

Name	Dwy 3		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 3		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	27	0	1927	1829	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	27	0	1927	1829	28
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	7	0	492	467	7
Total Analysis Volume [veh/h]	0	28	0	1966	1866	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.12	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	22.82	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.41	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	10.24	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	22.82		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.16					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 16: Bear Valley/Dwy 4**

Control Type:	Two-way stop	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.231

Intersection Setup

Name	Dwy 4		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 4		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	53	0	1927	1805	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	53	0	1927	1805	51
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	0	492	460	13
Total Analysis Volume [veh/h]	0	54	0	1966	1842	52
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.23	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	24.93	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.87	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	21.65	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	24.93		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 17: Bear Valley/Dwy 5**

Control Type:	Two-way stop	Delay (sec / veh):	25.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.231

Intersection Setup

Name	Dwy 5		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↻		↑↑↑		↑↑↑↻	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 5		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	53	0	1927	1809	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	53	0	1927	1809	51
Peak Hour Factor	1.0000	0.9800	1.0000	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	0	492	461	13
Total Analysis Volume [veh/h]	0	54	0	1966	1846	52
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.23	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	25.01	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.87	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	21.73	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	25.01		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 18: Dwy 6/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.2
 Level Of Service: C
 Volume to Capacity (v/c): 0.069

Intersection Setup

Name	2nd		2nd		Dwy 6	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	70.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 6	
Base Volume Input [veh/h]	86	218	296	12	27	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	86	218	296	12	27	113
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	56	76	3	7	29
Total Analysis Volume [veh/h]	88	222	302	12	28	115
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.07	0.13
d_M, Delay for Movement [s/veh]	8.12	0.00	0.00	0.00	15.19	10.48
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.23	0.00	0.00	0.00	0.76	0.76
95th-Percentile Queue Length [ft/ln]	5.70	0.00	0.00	0.00	18.88	18.88
d_A, Approach Delay [s/veh]	2.30		0.00		11.40	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.06					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 19: Dwy 7/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.059

Intersection Setup

Name	2nd		2nd		Dwy 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 7	
Base Volume Input [veh/h]	58	179	286	12	27	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	179	286	12	27	27
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	46	73	3	7	7
Total Analysis Volume [veh/h]	59	183	292	12	28	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.06	0.03
d_M, Delay for Movement [s/veh]	8.01	0.00	0.00	0.00	13.23	9.75
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.00	0.30	0.30
95th-Percentile Queue Length [ft/ln]	3.70	0.00	0.00	0.00	7.54	7.54
d_A, Approach Delay [s/veh]	1.95		0.00		11.49	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.85					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 20: Dwy 8/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.3
 Level Of Service: A
 Volume to Capacity (v/c): 0.022

Intersection Setup

Name	2nd		2nd		Dwy 8	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	⇕		⇕⇨		⇨	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 8	
Base Volume Input [veh/h]	0	215	283	33	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	215	283	33	0	19
Peak Hour Factor	0.9200	0.9800	0.9800	0.9800	0.9200	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	55	72	8	0	5
Total Analysis Volume [veh/h]	0	219	289	34	0	19
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.31
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.70
d_A, Approach Delay [s/veh]	0.00		0.00		9.31	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.32					
Intersection LOS	A					

OPENING YEAR CONDITIONS

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	7.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name	Northbound			I-15 SB Ramp			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	212	0	158	0	1115	254	0	976	531
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	212	0	158	0	1115	254	0	976	531
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	1.0000	0.9710	1.0000	0.9710	0.9710	1.0000	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	55	0	41	0	287	65	0	251	137
Total Analysis Volume [veh/h]	0	0	0	218	0	163	0	1148	262	0	1005	547
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0	
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0	
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0	
Delayed Vehicle Green [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	
Rest In Walk				No				No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	
Minimum Recall				No				No			No		
Maximum Recall				No				No			No		
Pedestrian Recall				No				No			No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		9	9	70	70	70	70
g / C, Green / Cycle		0.10	0.10	0.78	0.78	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.07	0.06	0.25	0.18	0.22	0.38
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1431
c, Capacity [veh/h]		317	258	3577	1116	3577	1116
d1, Uniform Delay [s]		38.98	38.74	2.89	2.65	2.78	3.51
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2.66	2.56	0.24	0.49	0.20	1.54
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.69	0.63	0.32	0.23	0.28	0.49
d, Delay for Lane Group [s/veh]		41.64	41.31	3.13	3.15	2.97	5.05
Lane Group LOS		D	D	A	A	A	A
Critical Lane Group		Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]		2.36	1.76	1.17	0.84	0.98	2.37
50th-Percentile Queue Length [ft/ln]		58.92	43.91	29.27	20.98	24.57	59.30
95th-Percentile Queue Length [veh/ln]		4.24	3.16	2.11	1.51	1.77	4.27
95th-Percentile Queue Length [ft/ln]		106.06	79.03	52.69	37.77	44.23	106.74

Movement, Approach, & Intersection Results

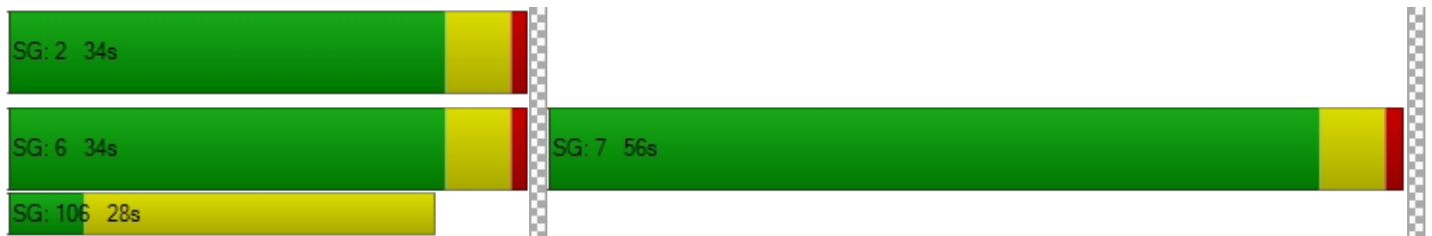
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	41.64	0.00	41.31	0.00	3.13	3.15	0.00	2.97	5.05
Movement LOS				D		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			41.50			3.13			3.71		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	7.77											
Intersection LOS	A											
Intersection V/C	0.452											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.543	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.335	2.200
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp**

Control Type:	Signalized	Delay (sec / veh):	49.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.856

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	162	1	577	0	0	0	189	1138	0	0	1332	188
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	162	1	577	0	0	0	189	1138	0	0	1332	188
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	0	147	0	0	0	48	290	0	0	339	47
Total Analysis Volume [veh/h]	165	1	588	0	0	0	192	1159	0	0	1356	188
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	54	54	0	0	0	0	20	66	0	0	46	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	120	120		120	120	120	120
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	49	49		15	61	41	41
g / C, Green / Cycle	0.41	0.41		0.12	0.51	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.10	0.41		0.12	0.25	0.32	0.33
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1581
c, Capacity [veh/h]	649	579		197	2323	1089	538
d1, Uniform Delay [s]	23.70	35.70		52.47	19.53	38.50	38.75
k, delay calibration	0.11	0.46		0.11	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	39.71		24.73	0.77	16.86	29.60
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	1.02		0.98	0.50	0.94	0.96
d, Delay for Lane Group [s/veh]	23.91	75.41		77.20	20.30	55.36	68.35
Lane Group LOS	C	F		E	C	E	E
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.09	22.43		7.00	6.95	16.71	18.67
50th-Percentile Queue Length [ft/ln]	77.23	560.75		175.04	173.70	417.77	466.76
95th-Percentile Queue Length [veh/ln]	5.56	30.53		11.34	11.27	23.41	25.76
95th-Percentile Queue Length [ft/ln]	139.02	763.36		283.53	281.77	585.37	643.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.91	23.91	75.41	0.00	0.00	0.00	77.20	20.30	0.00	0.00	58.49	68.35
Movement LOS	C	C	F				E	C			E	E
d_A, Approach Delay [s/veh]	64.07			0.00			28.39			59.69		
Approach LOS	E			A			C			E		
d_I, Intersection Delay [s/veh]	49.01											
Intersection LOS	D											
Intersection V/C	0.856											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.282	1.978	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	812	0	1012	678
d_b, Bicycle Delay [s]	21.18	60.00	14.65	26.20
I_b,int, Bicycle LOS Score for Intersection	2.804	4.132	2.303	2.409
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	27.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
	81	214	92	119	147	74	57	1574	63	64	1359	51
Base Volume Input [veh/h]	81	214	92	119	147	74	57	1574	63	64	1359	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	214	92	119	147	74	57	1574	63	64	1359	51
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	57	24	31	39	20	15	416	17	17	360	13
Total Analysis Volume [veh/h]	86	226	97	126	156	78	60	1666	67	68	1438	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	27	0	23	41	0	17	37	0	13	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	21	21	22	20	20	5	47	47	5	48	48
g / C, Green / Cycle	0.21	0.21	0.22	0.20	0.20	0.05	0.47	0.47	0.05	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.07	0.20	0.14	0.09	0.05	0.04	0.36	0.05	0.04	0.31	0.04
s, saturation flow rate [veh/h]	1289	1598	914	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	291	340	242	343	292	76	2172	678	85	2200	687
d1, Uniform Delay [s]	33.09	38.84	38.62	34.95	33.54	47.20	21.76	14.53	46.84	19.72	14.06
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.56	13.63	1.74	0.94	0.49	16.73	2.66	0.29	15.24	1.53	0.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.30	0.95	0.52	0.45	0.27	0.79	0.77	0.10	0.80	0.65	0.08
d, Delay for Lane Group [s/veh]	33.65	52.48	40.36	35.89	34.02	63.93	24.42	14.82	62.08	21.24	14.29
Lane Group LOS	C	D	D	D	C	E	C	B	E	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.71	8.70	2.62	3.32	1.59	1.77	9.97	0.81	1.96	7.75	0.64
50th-Percentile Queue Length [ft/ln]	42.72	217.48	65.58	83.05	39.76	44.15	249.22	20.37	49.03	193.64	16.00
95th-Percentile Queue Length [veh/ln]	3.08	13.54	4.72	5.98	2.86	3.18	15.15	1.47	3.53	12.31	1.15
95th-Percentile Queue Length [ft/ln]	76.89	338.41	118.04	149.50	71.57	79.47	378.67	36.67	88.25	307.75	28.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.65	52.48	52.48	40.36	35.89	34.02	63.93	24.42	14.82	62.08	21.24	14.29
Movement LOS	C	D	D	D	D	C	E	C	B	E	C	B
d_A, Approach Delay [s/veh]	48.52			37.05			25.38			22.78		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	27.71											
Intersection LOS	C											
Intersection V/C	0.642											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.394	2.488	3.438	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	426	706	626	546
d_b, Bicycle Delay [s]	30.97	20.93	23.60	26.43
I_b,int, Bicycle LOS Score for Intersection	2.234	2.154	2.546	2.418
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Two-way stop	Delay (sec / veh):	175.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.499

Intersection Setup

Name	3rd Ave		Bear Valley		Bear Valley	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	300.00	200.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	3rd Ave		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	17	58	1734	28	27	1443
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	58	1734	28	27	1443
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	16	471	8	7	392
Total Analysis Volume [veh/h]	18	63	1885	30	29	1568
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.50	0.28	0.02	0.00	0.21	0.02
d_M, Delay for Movement [s/veh]	175.43	91.53	0.00	0.00	37.87	0.00
Movement LOS	F	F	A	A	E	A
95th-Percentile Queue Length [veh/ln]	4.25	4.25	0.00	0.00	0.76	0.00
95th-Percentile Queue Length [ft/ln]	106.18	106.18	0.00	0.00	18.89	0.00
d_A, Approach Delay [s/veh]	110.17		0.00		0.69	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	2.79					
Intersection LOS	F					

**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	15.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.478

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← → →			← → →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	175.00	100.00	100.00	250.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	29	13	53	21	93	107	1679	8	6	1338	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	29	13	53	21	93	107	1679	8	6	1338	64
Peak Hour Factor	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	8	4	14	6	25	29	458	2	2	365	17
Total Analysis Volume [veh/h]	12	32	14	58	23	101	117	1831	9	7	1459	70
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	11	55	55	14	34	0	11	31	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No		No	No	No	No	No		No	No	
Maximum Recall		No		No	No	No	No	No		No	No	
Pedestrian Recall		No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	6	5	16	30	8	66	66	1	59	59
g / C, Green / Cycle	0.06	0.05	0.16	0.30	0.08	0.66	0.66	0.01	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.05	0.04	0.01	0.07	0.07	0.38	0.38	0.00	0.32	0.05
s, saturation flow rate [veh/h]	1145	1603	1683	1431	1603	3204	1679	1603	4584	1431
c, Capacity [veh/h]	109	73	268	429	134	2116	1108	15	2688	839
d1, Uniform Delay [s]	46.94	47.32	35.85	26.40	45.36	9.27	9.27	49.32	12.56	9.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.01	17.69	0.14	0.28	15.96	1.12	2.14	20.35	0.79	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.80	0.09	0.24	0.88	0.57	0.57	0.46	0.54	0.08
d, Delay for Lane Group [s/veh]	50.95	65.00	35.98	26.68	61.32	10.39	11.40	69.67	13.35	9.20
Lane Group LOS	D	E	D	C	E	B	B	E	B	A
Critical Lane Group	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.51	1.74	0.47	1.76	3.33	5.81	6.40	0.25	5.70	0.61
50th-Percentile Queue Length [ft/ln]	37.71	43.49	11.79	43.99	83.23	145.17	159.96	6.31	142.45	15.33
95th-Percentile Queue Length [veh/ln]	2.72	3.13	0.85	3.17	5.99	9.76	10.55	0.45	9.61	1.10
95th-Percentile Queue Length [ft/ln]	67.88	78.28	21.21	79.19	149.81	243.97	263.67	11.37	240.32	27.59

Movement, Approach, & Intersection Results

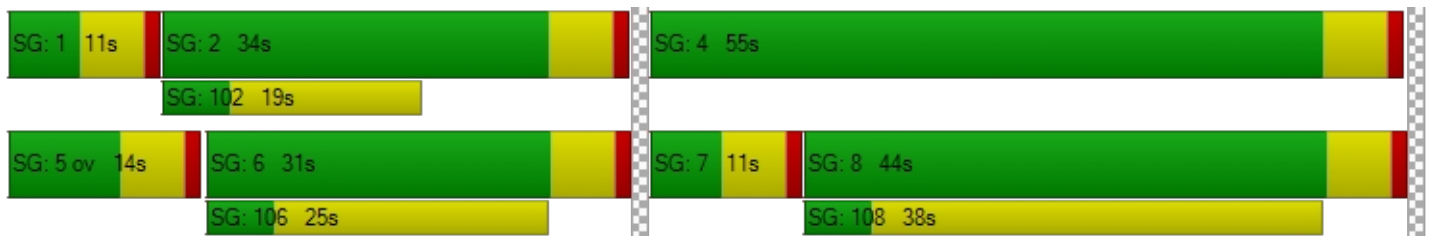
d_M, Delay for Movement [s/veh]	50.95	50.95	50.95	65.00	35.98	26.68	61.32	10.74	11.40	69.67	13.35	9.20
Movement LOS	D	D	D	E	D	C	E	B	B	E	B	A
d_A, Approach Delay [s/veh]	50.95			40.07			13.76			13.42		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	15.48											
Intersection LOS	B											
Intersection V/C	0.478											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	0.00	41.41
I_p,int, Pedestrian LOS Score for Intersection	1.792	2.424	0.000	3.431
Crosswalk LOS	A	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	986	566	506
d_b, Bicycle Delay [s]	19.03	12.85	25.70	27.90
I_b,int, Bicycle LOS Score for Intersection	1.655	1.860	2.636	2.404
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	133.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.121

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	12	5	10	101	6	1081	471	2231	25	13	1914	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	5	10	101	6	1081	471	2231	25	13	1914	38
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	29	2	306	134	632	7	4	543	11
Total Analysis Volume [veh/h]	14	6	11	115	7	1226	534	2529	28	15	2170	43
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	14	68	0	11	65	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.04	0.12	0.48	0.33	0.52	0.53	0.01	0.45	0.46
s, saturation flow rate [veh/h]	813	1010	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	280	352	1560	454	1759	919	29	909	472
d1, Uniform Delay [s]	28.52	31.80	15.10	37.92	22.58	22.72	51.51	37.90	37.90
k, delay calibration	0.11	0.11	0.32	0.50	0.37	0.50	0.11	0.28	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.59	2.63	100.45	10.30	21.21	14.16	273.35	282.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.35	0.79	1.18	0.95	0.96	0.53	1.60	1.61
d, Delay for Lane Group [s/veh]	28.69	32.38	17.73	138.37	32.88	43.93	65.68	311.25	320.05
Lane Group LOS	C	C	B	F	C	D	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.59	2.66	10.54	23.75	19.54	23.41	0.50	45.59	48.57
50th-Percentile Queue Length [ft/ln]	14.72	66.41	263.60	593.66	488.62	585.28	12.39	1139.82	1214.31
95th-Percentile Queue Length [veh/ln]	1.06	4.78	15.87	34.89	26.80	31.35	0.89	70.88	75.20
95th-Percentile Queue Length [ft/ln]	26.49	119.54	396.74	872.22	669.88	783.66	22.31	1771.93	1879.96

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.69	28.69	28.69	32.38	32.38	17.73	138.37	36.61	43.93	65.68	314.15	320.05
Movement LOS	C	C	C	C	C	B	F	D	D	E	F	F
d_A, Approach Delay [s/veh]	28.69			19.05			54.25			312.59		
Approach LOS	C			B			D			F		
d_I, Intersection Delay [s/veh]	132.98											
Intersection LOS	F											
Intersection V/C	1.121											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
l_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	127			127			1393			1327		
d_b, Bicycle Delay [s]	39.48			39.48			4.14			5.10		
l_b,int, Bicycle LOS Score for Intersection	1.611			3.784			3.260			2.785		
Bicycle LOS	A			D			C			C		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	24.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.460

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	166	711	45	65	682	101	30	65	69	40	139	108
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	711	45	65	682	101	30	65	69	40	139	108
Peak Hour Factor	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	196	12	18	188	28	8	18	19	11	38	30
Total Analysis Volume [veh/h]	183	786	50	72	754	112	33	72	76	44	154	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	31	0	14	29	0	11	34	0	11	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	12	50	50	5	43	43	3	7	7	6	10	10
g / C, Green / Cycle	0.14	0.56	0.56	0.06	0.48	0.48	0.03	0.08	0.08	0.07	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.11	0.25	0.03	0.04	0.24	0.08	0.02	0.04	0.05	0.03	0.08	0.09
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1450
c, Capacity [veh/h]	218	1797	802	90	1540	687	50	128	108	115	196	169
d1, Uniform Delay [s]	37.91	11.51	9.00	42.00	15.88	13.18	43.12	40.17	40.60	39.87	38.40	38.63
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.26	0.78	0.15	14.98	0.24	0.11	13.53	3.87	7.94	2.07	5.07	7.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.84	0.44	0.06	0.80	0.49	0.16	0.66	0.56	0.70	0.38	0.73	0.78
d, Delay for Lane Group [s/veh]	46.17	12.28	9.15	56.98	16.13	13.29	56.65	44.04	48.54	41.93	43.47	46.05
Lane Group LOS	D	B	A	E	B	B	E	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.32	4.29	0.44	1.88	4.69	1.17	0.89	1.62	1.83	0.95	3.15	3.01
50th-Percentile Queue Length [ft/ln]	108.02	107.24	11.02	47.11	117.37	29.13	22.32	40.61	45.65	23.87	78.87	75.28
95th-Percentile Queue Length [veh/ln]	7.73	7.69	0.79	3.39	8.25	2.10	1.61	2.92	3.29	1.72	5.68	5.42
95th-Percentile Queue Length [ft/ln]	193.24	192.16	19.83	84.80	206.20	52.44	40.18	73.10	82.17	42.97	141.97	135.50

Movement, Approach, & Intersection Results

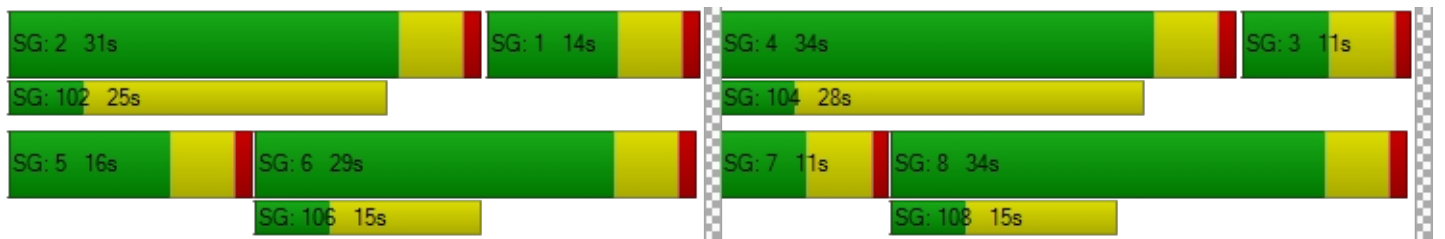
d_M, Delay for Movement [s/veh]	46.17	12.28	9.15	56.98	16.13	13.29	56.65	44.04	48.54	41.93	43.66	46.05
Movement LOS	D	B	A	E	B	B	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	18.22			18.92			48.23			44.32		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.07											
Intersection LOS	C											
Intersection V/C	0.460											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.813	2.912	2.465	2.451
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	527	638	638
d_b, Bicycle Delay [s]	22.97	24.42	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	2.400	2.333	1.709	1.821
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.8
 Level Of Service: A
 Volume to Capacity (v/c): 0.209

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	6	73	108	93	105	2	0	39	19	87	12	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	73	108	93	105	2	0	39	19	87	12	22
Peak Hour Factor	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	22	33	29	32	1	0	12	6	27	4	7
Total Analysis Volume [veh/h]	7	90	133	115	129	2	0	48	23	107	15	27
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	568	617	701	575	627	579	600	551	597	675
Degree of Utilization, x	0.01	0.15	0.19	0.20	0.21	0.00	0.12	0.19	0.03	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.04	0.51	0.70	0.74	0.78	0.00	0.40	0.71	0.08	0.12
95th-Percentile Queue Length [ft]	0.94	12.72	17.39	18.51	19.59	0.00	10.00	17.83	1.93	3.12
Approach Delay [s/veh]	9.23			10.22			9.50		10.14	
Approach LOS	A			B			A		B	
Intersection Delay [s/veh]	9.80									
Intersection LOS	A									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type:	All-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.616

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	58	22	303	163	26	149
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	22	303	163	26	149
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	6	85	46	7	42
Total Analysis Volume [veh/h]	65	25	342	184	29	168
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	657	853	754
Degree of Utilization, x	0.14	0.62	0.26

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.47	4.36	1.04
95th-Percentile Queue Length [ft]	11.84	108.94	26.12
Approach Delay [s/veh]	9.36	13.75	9.45
Approach LOS	A	B	A
Intersection Delay [s/veh]	12.22		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.5
 Level Of Service: C
 Volume to Capacity (v/c): 0.688

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	9	30	5	316	28	30	18	145	10	7	104	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	30	5	316	28	30	18	145	10	7	104	95
Peak Hour Factor	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	9	1	94	8	9	5	43	3	2	31	28
Total Analysis Volume [veh/h]	11	36	6	376	33	36	21	172	12	8	124	113
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	540	617	647	619	653
Degree of Utilization, x	0.09	0.01	0.69	0.33	0.37

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.29	0.03	5.44	1.45	1.74
95th-Percentile Queue Length [ft]	7.13	0.74	136.11	36.19	43.51
Approach Delay [s/veh]	9.85		19.93	11.68	11.78
Approach LOS	A		C	B	B
Intersection Delay [s/veh]	15.48				
Intersection LOS	C				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.017

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	41	84	24	5	53	6	9	38	13	9	38	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	84	24	5	53	6	9	38	13	9	38	5
Peak Hour Factor	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	24	7	1	15	2	3	11	4	3	11	1
Total Analysis Volume [veh/h]	46	95	27	6	60	7	10	43	15	10	43	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00	0.02	0.07	0.01	0.02	0.07	0.01
d_M, Delay for Movement [s/veh]	7.42	0.00	0.00	7.47	0.00	0.00	11.68	11.65	9.23	11.74	11.54	9.41
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.09	0.01	0.01	0.01	0.35	0.35	0.35	0.31	0.31	0.31
95th-Percentile Queue Length [ft/ln]	2.32	2.32	2.32	0.31	0.31	0.31	8.63	8.63	8.63	7.78	7.78	7.78
d_A, Approach Delay [s/veh]	2.03			0.61			11.12			11.36		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	4.93											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.032

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	1	19	2	9	8	14	28	42	1	2	39	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	19	2	9	8	14	28	42	1	2	39	13
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	1	3	2	4	8	12	0	1	11	4
Total Analysis Volume [veh/h]	1	22	2	10	9	16	33	49	1	2	45	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.03	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.02	10.34	8.71	10.03	10.30	8.74	7.38	0.00	0.00	7.32	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.11	0.13	0.13	0.13	0.07	0.07	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.70	2.70	2.70	3.28	3.28	3.28	1.64	1.64	1.64	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.20			9.51			2.94			0.24		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.13											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB**

Control Type:	Signalized	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

Intersection Setup

Name	I-15 SB Ramp			Bear Valley			Bear Valley					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	307	0	424	0	1660	294	0	1677	383
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	307	0	424	0	1660	294	0	1677	383
Peak Hour Factor	0.9710	0.9710	0.9710	0.9640	1.0000	0.9640	1.0000	0.9640	0.9640	1.0000	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	80	0	110	0	430	76	0	435	99
Total Analysis Volume [veh/h]	0	0	0	318	0	440	0	1722	305	0	1740	397
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0	
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0	
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0	
Delayed Vehicle Green [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	
Rest In Walk				No				No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	
Minimum Recall				No				No			No		
Maximum Recall				No				No			No		
Pedestrian Recall				No				No			No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		19	19	60	60	60	60
g / C, Green / Cycle		0.21	0.21	0.67	0.67	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate		0.10	0.17	0.38	0.21	0.35	0.36
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1488
c, Capacity [veh/h]		656	534	3077	960	3077	998
d1, Uniform Delay [s]		31.12	33.81	7.77	6.17	7.46	7.57
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.56	3.29	0.74	0.87	0.63	2.05
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.48	0.82	0.56	0.32	0.52	0.54
d, Delay for Lane Group [s/veh]		31.67	37.10	8.51	7.04	8.09	9.62
Lane Group LOS		C	D	A	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		2.95	4.60	4.70	2.12	4.19	4.64
50th-Percentile Queue Length [ft/ln]		73.64	114.91	117.44	53.10	104.74	115.95
95th-Percentile Queue Length [veh/ln]		5.30	8.11	8.25	3.82	7.54	8.17
95th-Percentile Queue Length [ft/ln]		132.55	202.81	206.31	95.58	188.54	204.25

Movement, Approach, & Intersection Results

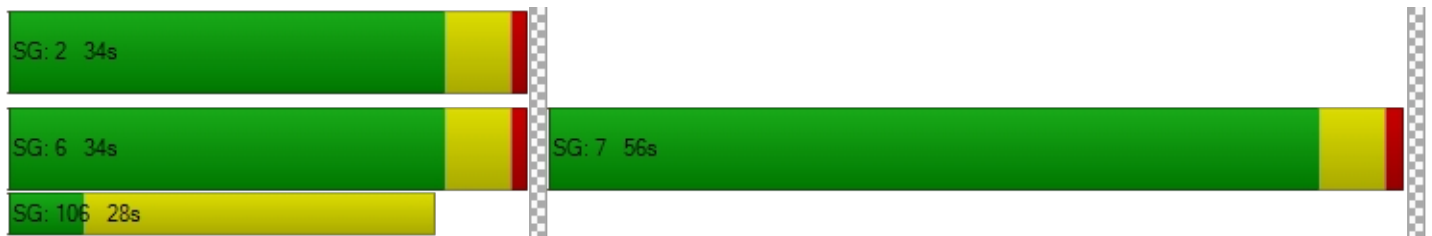
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.67	0.00	37.10	0.00	8.51	7.04	0.00	8.22	9.62
Movement LOS				C		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			34.82			8.29			8.48		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	12.46											
Intersection LOS	B											
Intersection V/C	0.549											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.602	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.674	2.441
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	99.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.067

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	410	2	674	0	0	0	295	1640	0	0	1697	176
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	410	2	674	0	0	0	295	1640	0	0	1697	176
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	105	1	172	0	0	0	75	419	0	0	433	45
Total Analysis Volume [veh/h]	419	2	688	0	0	0	301	1675	0	0	1733	180
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	56	56	0	0	0	0	26	74	0	0	48	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	130	130		130	130	130	130
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	51	51		21	69	43	43
g / C, Green / Cycle	0.39	0.39		0.16	0.53	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.26	0.48		0.19	0.37	0.40	0.40
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1603
c, Capacity [veh/h]	624	557		255	2426	1054	528
d1, Uniform Delay [s]	32.87	39.69		54.63	22.70	43.60	43.60
k, delay calibration	0.21	0.50		0.29	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.49	120.82		101.75	1.64	103.27	110.72
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	1.24		1.18	0.69	1.21	1.21
d, Delay for Lane Group [s/veh]	35.36	160.51		156.38	24.34	146.87	154.33
Lane Group LOS	D	F		F	C	F	F
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	11.11	35.74		15.43	12.40	31.55	32.66
50th-Percentile Queue Length [ft/ln]	277.70	893.57		385.64	309.98	788.66	816.41
95th-Percentile Queue Length [veh/ln]	16.57	52.19		23.57	18.17	45.81	47.25
95th-Percentile Queue Length [ft/ln]	414.35	1304.82		589.36	454.35	1145.29	1181.16

Movement, Approach, & Intersection Results

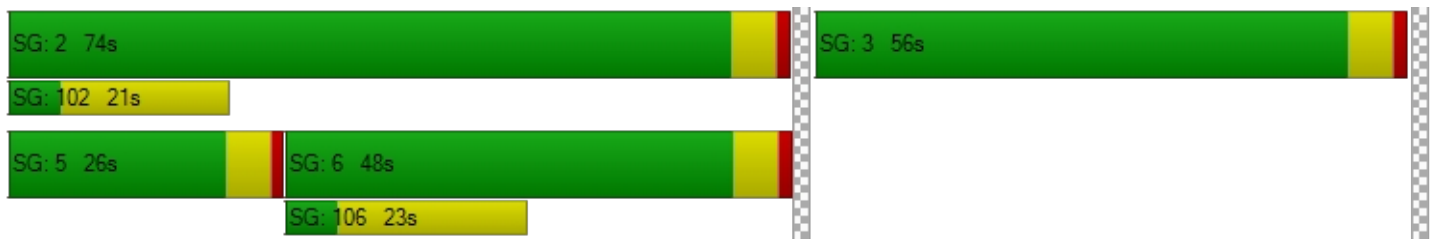
d_M, Delay for Movement [s/veh]	35.36	35.36	160.51	0.00	0.00	0.00	156.38	24.34	0.00	0.00	148.84	154.33
Movement LOS	D	D	F				F	C			F	F
d_A, Approach Delay [s/veh]	113.00			0.00			44.45			149.36		
Approach LOS	F			A			D			F		
d_I, Intersection Delay [s/veh]	99.82											
Intersection LOS	F											
Intersection V/C	1.067											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.31	56.31	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.440	2.048	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	780	0	1057	657
d_b, Bicycle Delay [s]	24.19	65.00	14.45	29.31
I_b,int, Bicycle LOS Score for Intersection	3.389	4.132	2.646	2.612
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	41.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.748

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	114	265	102	153	319	105	107	1734	126	118	1615	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	265	102	153	319	105	107	1734	126	118	1615	131
Peak Hour Factor	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	67	26	39	81	27	27	441	32	30	410	33
Total Analysis Volume [veh/h]	116	269	104	155	324	107	109	1762	128	120	1641	133
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	33	0	17	41	0	27	42	0	18	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	27	27	29	27	27	9	45	45	10	45	45
g / C, Green / Cycle	0.25	0.25	0.26	0.25	0.25	0.08	0.41	0.41	0.09	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.10	0.23	0.19	0.19	0.07	0.07	0.38	0.09	0.07	0.36	0.09
s, saturation flow rate [veh/h]	1174	1604	833	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	230	396	255	415	353	134	1857	580	144	1887	589
d1, Uniform Delay [s]	35.09	40.66	42.18	38.66	33.74	49.59	31.62	21.38	49.24	29.65	20.99
k, delay calibration	0.11	0.23	0.19	0.14	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.70	19.38	4.12	4.14	0.48	11.32	11.85	0.88	11.59	5.78	0.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.50	0.94	0.61	0.78	0.30	0.82	0.95	0.22	0.83	0.87	0.23
d, Delay for Lane Group [s/veh]	36.79	60.04	46.30	42.80	34.22	60.91	43.47	22.26	60.83	35.43	21.88
Lane Group LOS	D	E	D	D	C	E	D	C	E	D	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.54	11.58	3.59	8.38	2.32	3.25	15.76	2.16	3.58	13.09	2.22
50th-Percentile Queue Length [ft/ln]	63.53	289.62	89.76	209.52	58.12	81.32	393.95	54.08	89.49	327.29	55.62
95th-Percentile Queue Length [veh/ln]	4.57	17.17	6.46	13.13	4.18	5.86	22.27	3.89	6.44	19.03	4.00
95th-Percentile Queue Length [ft/ln]	114.36	429.17	161.57	328.22	104.62	146.38	556.71	97.34	161.07	475.63	100.11

Movement, Approach, & Intersection Results

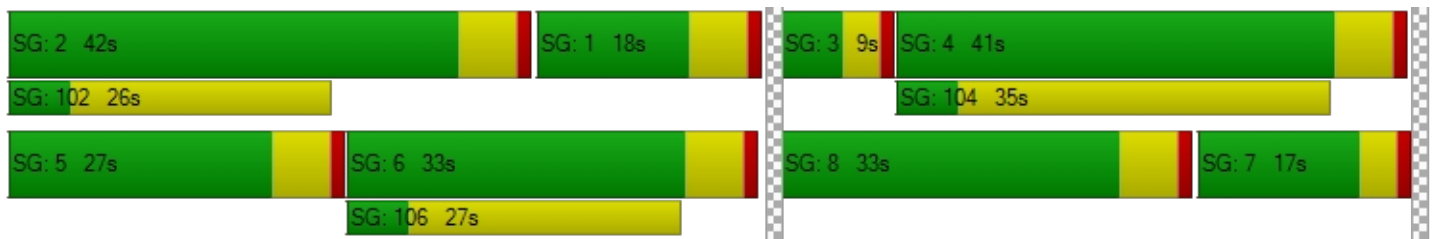
d_M, Delay for Movement [s/veh]	36.79	60.04	60.04	46.30	42.80	34.22	60.91	43.47	22.26	60.83	35.43	21.88
Movement LOS	D	E	E	D	D	C	E	D	C	E	D	C
d_A, Approach Delay [s/veh]	54.52			42.16			43.06			36.09		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.43											
Intersection LOS	D											
Intersection V/C	0.748											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	46.37	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.530	2.596	3.548	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	496	642	660	496
d_b, Bicycle Delay [s]	31.09	25.36	24.69	31.09
I_b,int, Bicycle LOS Score for Intersection	2.366	2.527	2.659	2.601
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Two-way stop	Delay (sec / veh):	514.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.092

Intersection Setup

Name	3rd Ave		Bear Valley		Bear Valley	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	300.00	200.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	3rd Ave		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	19	70	1934	67	48	1848
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	70	1934	67	48	1848
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	18	498	17	12	476
Total Analysis Volume [veh/h]	20	72	1994	69	49	1905
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.09	0.35	0.02	0.00	0.42	0.02
d_M, Delay for Movement [s/veh]	514.75	335.44	0.00	0.00	56.93	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	7.88	7.88	0.00	0.00	1.80	0.00
95th-Percentile Queue Length [ft/ln]	196.99	196.99	0.00	0.00	45.05	0.00
d_A, Approach Delay [s/veh]	374.42		0.00		1.43	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	9.06					
Intersection LOS	F					

**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	21.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← → →			← → →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	175.00	100.00	100.00	250.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
	26	27	31	90	40	157	113	1826	23	25	1721	71
Base Volume Input [veh/h]	26	27	31	90	40	157	113	1826	23	25	1721	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	27	31	90	40	157	113	1826	23	25	1721	71
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	7	8	23	10	41	29	477	6	7	449	19
Total Analysis Volume [veh/h]	27	28	32	94	42	164	118	1906	24	26	1796	74
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	12	56	56	13	32	0	12	31	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No		No	No	No	No	No		No	No	
Maximum Recall		No		No	No	No	No	No		No	No	
Pedestrian Recall		No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	9	6	21	34	7	59	59	3	55	55
g / C, Green / Cycle	0.09	0.06	0.21	0.34	0.07	0.59	0.59	0.03	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.07	0.06	0.02	0.11	0.07	0.40	0.40	0.02	0.39	0.05
s, saturation flow rate [veh/h]	1166	1603	1683	1431	1603	3204	1672	1603	4584	1431
c, Capacity [veh/h]	150	102	351	485	118	1905	994	42	2509	783
d1, Uniform Delay [s]	45.17	46.63	32.16	24.71	46.37	13.63	13.63	48.22	16.86	10.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.53	26.44	0.15	0.41	39.37	1.86	3.53	13.68	1.78	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.92	0.12	0.34	1.00	0.67	0.67	0.62	0.72	0.09
d, Delay for Lane Group [s/veh]	48.70	73.07	32.31	25.12	85.74	15.48	17.17	61.90	18.64	11.05
Lane Group LOS	D	E	C	C	F	B	B	E	B	B
Critical Lane Group	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.20	2.99	0.81	2.80	4.07	8.35	9.19	0.78	9.07	0.74
50th-Percentile Queue Length [ft/ln]	55.10	74.75	20.20	69.91	101.85	208.64	229.68	19.39	226.86	18.47
95th-Percentile Queue Length [veh/ln]	3.97	5.38	1.45	5.03	7.33	13.08	14.16	1.40	14.01	1.33
95th-Percentile Queue Length [ft/ln]	99.18	134.54	36.36	125.84	183.34	327.08	353.95	34.90	350.37	33.25

Movement, Approach, & Intersection Results

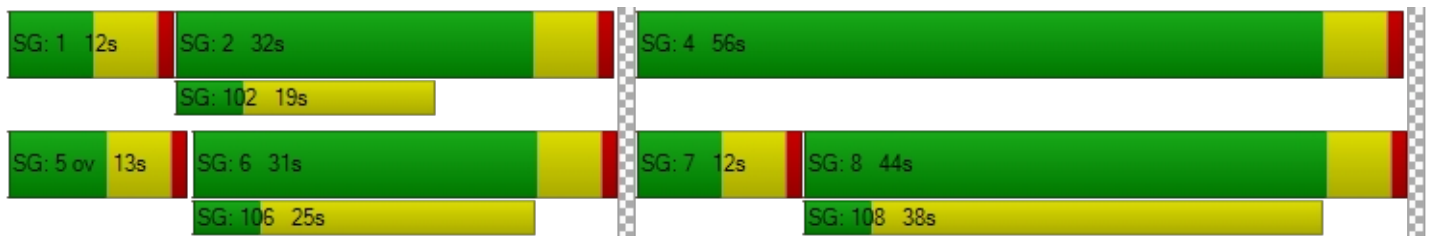
d_M, Delay for Movement [s/veh]	48.70	48.70	48.70	73.07	32.31	25.12	85.74	16.05	17.17	61.90	18.64	11.05
Movement LOS	D	D	D	E	C	C	F	B	B	E	B	B
d_A, Approach Delay [s/veh]	48.70			41.15			20.08			18.94		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	21.61											
Intersection LOS	C											
Intersection V/C	0.599											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	0.00	41.41
I_p,int, Pedestrian LOS Score for Intersection	1.852	2.459	0.000	3.530
Crosswalk LOS	A	B	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	766	1006	526	506
d_b, Bicycle Delay [s]	19.03	12.35	27.16	27.90
I_b,int, Bicycle LOS Score for Intersection	1.703	2.055	2.686	2.602
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	138.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.139

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	23	5	10	93	1	771	710	2828	10	3	2008	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	5	10	93	1	771	710	2828	10	3	2008	42
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	3	25	0	205	189	751	3	1	533	11
Total Analysis Volume [veh/h]	24	5	11	99	1	819	755	3005	11	3	2134	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	68	68	0	11	11	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	99	99	99	99	99	99	99	99	99
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	24	24	59	30	60	60	0	30	30
g / C, Green / Cycle	0.24	0.24	0.59	0.30	0.60	0.60	0.00	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.05	0.09	0.32	0.47	0.62	0.62	0.00	0.45	0.45
s, saturation flow rate [veh/h]	856	1135	2532	1603	3204	1680	1603	3204	1665
c, Capacity [veh/h]	261	341	1499	484	1916	1005	8	965	502
d1, Uniform Delay [s]	32.29	31.99	12.22	34.68	19.97	19.97	49.26	34.71	34.71
k, delay calibration	0.11	0.11	0.11	0.50	0.44	0.50	0.11	0.24	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.27	0.47	0.31	262.12	27.98	37.45	25.00	220.41	229.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.29	0.55	1.56	1.03	1.03	0.36	1.48	1.49
d, Delay for Lane Group [s/veh]	32.56	32.46	12.53	296.80	47.95	57.42	74.26	255.12	264.59
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.87	2.06	5.14	46.14	25.41	29.29	0.13	40.43	43.34
50th-Percentile Queue Length [ft/ln]	21.72	51.39	128.50	1153.41	635.28	732.17	3.23	1010.80	1083.61
95th-Percentile Queue Length [veh/ln]	1.56	3.70	8.86	71.42	34.57	39.25	0.23	62.26	66.42
95th-Percentile Queue Length [ft/ln]	39.09	92.51	221.45	1785.50	864.32	981.32	5.81	1556.49	1660.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.56	32.56	32.56	32.46	32.46	12.53	296.80	51.19	57.42	74.26	258.23	264.59
Movement LOS	C	C	C	C	C	B	F	F	E	E	F	F
d_A, Approach Delay [s/veh]	32.56			14.70			100.38			258.11		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	138.39											
Intersection LOS	F											
Intersection V/C	1.139											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	127
d_b, Bicycle Delay [s]	39.48	39.48	4.14	39.48
I_b,int, Bicycle LOS Score for Intersection	1.626	3.076	3.634	2.760
Bicycle LOS	A	C	D	C

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	27.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	154	1041	44	96	726	65	73	109	149	54	77	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	154	1041	44	96	726	65	73	109	149	54	77	126
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	279	12	26	195	17	20	29	40	14	21	34
Total Analysis Volume [veh/h]	165	1117	47	103	779	70	78	117	160	58	83	135
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	31	0	12	28	0	26	34	0	13	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	11	46	46	7	41	41	6	12	12	4	11	11
g / C, Green / Cycle	0.12	0.51	0.51	0.07	0.46	0.46	0.06	0.14	0.14	0.05	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.10	0.35	0.03	0.06	0.24	0.05	0.05	0.07	0.11	0.04	0.05	0.09
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1431
c, Capacity [veh/h]	199	1625	726	119	1466	654	99	231	197	73	204	173
d1, Uniform Delay [s]	38.47	16.78	11.30	41.20	17.51	13.94	41.66	35.99	37.71	42.56	36.58	38.40
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.44	2.39	0.17	16.14	0.30	0.07	12.92	1.71	7.90	17.71	1.31	7.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.83	0.69	0.06	0.86	0.53	0.11	0.79	0.51	0.81	0.80	0.41	0.78
d, Delay for Lane Group [s/veh]	46.91	19.17	11.47	57.33	17.81	14.01	54.58	37.70	45.61	60.28	37.88	45.79
Lane Group LOS	D	B	B	E	B	B	D	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.92	8.43	0.48	2.69	5.21	0.75	2.01	2.40	3.72	1.58	1.68	3.10
50th-Percentile Queue Length [ft/ln]	98.07	210.82	12.05	67.26	130.13	18.72	50.13	60.06	92.90	39.49	42.04	77.51
95th-Percentile Queue Length [veh/ln]	7.06	13.20	0.87	4.84	8.95	1.35	3.61	4.32	6.69	2.84	3.03	5.58
95th-Percentile Queue Length [ft/ln]	176.52	329.88	21.69	121.06	223.68	33.69	90.23	108.10	167.22	71.08	75.67	139.52

Movement, Approach, & Intersection Results

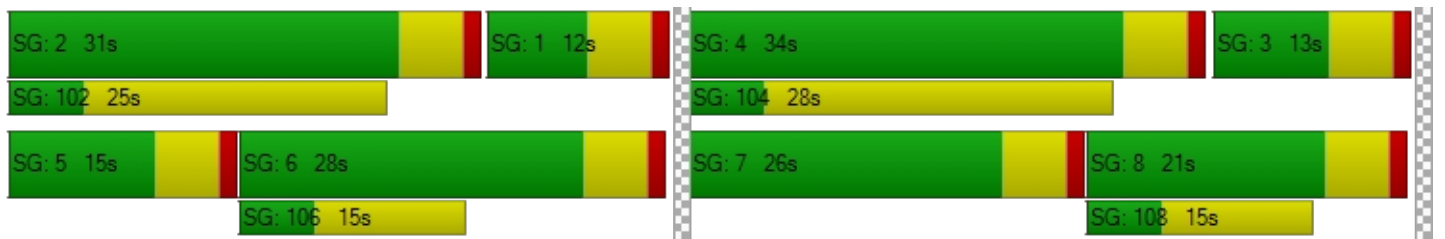
d_M, Delay for Movement [s/veh]	46.91	19.17	11.47	57.33	17.81	14.01	54.58	37.70	45.61	60.28	37.88	45.79
Movement LOS	D	B	B	E	B	B	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	22.35			21.81			44.98			46.46		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	27.21											
Intersection LOS	C											
Intersection V/C	0.561											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.895	3.011	2.476	2.460
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	504	638	349
d_b, Bicycle Delay [s]	22.97	25.16	20.88	30.67
I_b,int, Bicycle LOS Score for Intersection	2.656	2.345	1.852	1.787
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.9
 Level Of Service: A
 Volume to Capacity (v/c): 0.272

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	24	103	111	45	83	1	0	14	15	128	16	92
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	103	111	45	83	1	0	14	15	128	16	92
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	31	34	14	25	0	0	4	5	39	5	28
Total Analysis Volume [veh/h]	29	125	134	54	100	1	0	17	18	155	19	111
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	566	614	697	548	594	571	606	570	617	700
Degree of Utilization, x	0.05	0.20	0.19	0.10	0.17	0.00	0.06	0.27	0.03	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.16	0.76	0.71	0.33	0.61	0.00	0.18	1.10	0.10	0.56
95th-Percentile Queue Length [ft]	4.04	18.93	17.67	8.16	15.23	0.00	4.59	27.49	2.38	14.01
Approach Delay [s/veh]	9.54			10.00			9.01		10.20	
Approach LOS	A			B			A		B	
Intersection Delay [s/veh]	9.85									
Intersection LOS	A									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.448

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	170	24	162	106	28	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	24	162	106	28	185
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	8	51	33	9	58
Total Analysis Volume [veh/h]	213	30	203	133	35	231
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	653	751	701
Degree of Utilization, x	0.37	0.45	0.38

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.72	2.33	1.77
95th-Percentile Queue Length [ft]	43.01	58.18	44.35
Approach Delay [s/veh]	11.74	11.63	11.23
Approach LOS	B	B	B
Intersection Delay [s/veh]	11.54		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.586

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	12	29	5	156	47	55	47	114	8	5	177	165
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	29	5	156	47	55	47	114	8	5	177	165
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	9	1	46	14	16	14	34	2	1	53	49
Total Analysis Volume [veh/h]	14	35	6	186	56	65	56	136	10	6	211	196
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	520	594	620	629	705
Degree of Utilization, x	0.09	0.01	0.50	0.32	0.59

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.31	0.03	2.75	1.38	3.85
95th-Percentile Queue Length [ft]	7.76	0.76	68.87	34.59	96.16
Approach Delay [s/veh]	10.17		14.39	11.41	15.09
Approach LOS	B		B	B	C
Intersection Delay [s/veh]	13.83				
Intersection LOS	B				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.0
 Level Of Service: B
 Volume to Capacity (v/c): 0.043

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	50	74	13	9	99	16	12	60	19	21	95	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	74	13	9	99	16	12	60	19	21	95	8
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	20	3	2	26	4	3	16	5	6	25	2
Total Analysis Volume [veh/h]	53	78	14	10	105	17	13	64	20	22	101	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.01	0.00	0.00	0.03	0.11	0.02	0.04	0.18	0.01
d_M, Delay for Movement [s/veh]	7.55	0.00	0.00	7.41	0.00	0.00	13.70	12.58	10.00	13.98	13.33	10.60
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	B
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.11	0.02	0.02	0.02	0.58	0.58	0.58	0.89	0.89	0.89
95th-Percentile Queue Length [ft/ln]	2.81	2.81	2.81	0.50	0.50	0.50	14.42	14.42	14.42	22.25	22.25	22.25
d_A, Approach Delay [s/veh]	2.76			0.56			12.20			13.27		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	6.72											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.0
 Level Of Service: B
 Volume to Capacity (v/c): 0.064

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	0	25	0	18	41	28	21	65	2	2	82	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	25	0	18	41	28	21	65	2	2	82	15
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	7	0	5	11	7	6	17	1	1	22	4
Total Analysis Volume [veh/h]	0	26	0	19	43	30	22	68	2	2	86	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.00	0.03	0.06	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.82	10.61	8.84	10.80	11.01	9.40	7.45	0.00	0.00	7.35	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.12	0.42	0.42	0.42	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.03	3.03	3.03	10.38	10.38	10.38	1.12	1.12	1.12	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.61			10.44			1.78			0.14		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	4.51											
Intersection LOS	B											

OPENING YEAR W/ PROJECT CONDITIONS

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	8.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.489

Intersection Setup

Name	Northbound			I-15 SB Ramp			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	243	0	158	0	1131	254	0	994	567
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	243	0	158	0	1131	254	0	994	567
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	1.0000	0.9710	1.0000	0.9710	0.9710	1.0000	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	63	0	41	0	291	65	0	256	146
Total Analysis Volume [veh/h]	0	0	0	250	0	163	0	1165	262	0	1024	584
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0	
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0	
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0	
Delayed Vehicle Green [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	
Rest In Walk				No				No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	
Minimum Recall				No				No			No		
Maximum Recall				No				No			No		
Pedestrian Recall				No				No			No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		10	10	69	69	69	69
g / C, Green / Cycle		0.11	0.11	0.77	0.77	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate		0.08	0.06	0.25	0.18	0.22	0.41
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1431
c, Capacity [veh/h]		350	285	3528	1101	3528	1101
d1, Uniform Delay [s]		38.48	37.83	3.20	2.92	3.07	4.03
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2.72	1.81	0.25	0.51	0.21	1.83
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.71	0.57	0.33	0.24	0.29	0.53
d, Delay for Lane Group [s/veh]		41.20	39.64	3.45	3.43	3.28	5.86
Lane Group LOS		D	D	A	A	A	A
Critical Lane Group		Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]		2.69	1.71	1.34	0.93	1.13	2.94
50th-Percentile Queue Length [ft/ln]		67.32	42.82	33.41	23.22	28.18	73.44
95th-Percentile Queue Length [veh/ln]		4.85	3.08	2.41	1.67	2.03	5.29
95th-Percentile Queue Length [ft/ln]		121.17	77.07	60.14	41.79	50.72	132.20

Movement, Approach, & Intersection Results

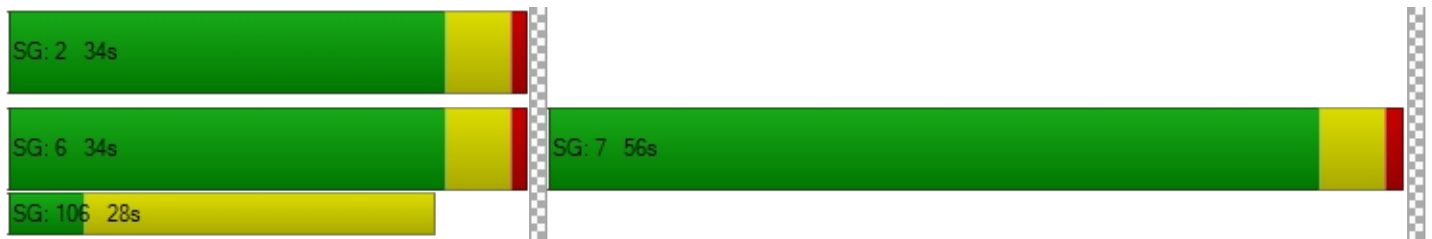
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	41.20	0.00	39.64	0.00	3.45	3.43	0.00	3.28	5.86
Movement LOS				D		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			40.59			3.45			4.22		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	8.25											
Intersection LOS	A											
Intersection V/C	0.489											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.561	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.344	2.223
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp**

Control Type:	Signalized	Delay (sec / veh):	52.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.878

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	162	1	577	0	0	0	189	1185	0	0	1386	224
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	162	1	577	0	0	0	189	1185	0	0	1386	224
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	0	147	0	0	0	48	302	0	0	353	56
Total Analysis Volume [veh/h]	165	1	588	0	0	0	192	1207	0	0	1411	224
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	53	53	0	0	0	0	20	67	0	0	47	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	120	120		120	120	120	120
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	48	48		15	62	42	42
g / C, Green / Cycle	0.40	0.40		0.12	0.51	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.10	0.41		0.12	0.26	0.34	0.35
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1569
c, Capacity [veh/h]	636	567		197	2361	1116	546
d1, Uniform Delay [s]	24.36	36.19		52.47	19.16	38.63	39.06
k, delay calibration	0.11	0.47		0.11	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	46.46		24.73	0.79	21.96	37.92
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	1.04		0.98	0.51	0.98	1.00
d, Delay for Lane Group [s/veh]	24.57	82.65		77.20	19.95	60.59	76.98
Lane Group LOS	C	F		E	B	E	E
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.14	23.09		7.00	7.19	18.60	21.12
50th-Percentile Queue Length [ft/ln]	78.53	577.15		175.04	179.68	465.01	527.97
95th-Percentile Queue Length [veh/ln]	5.65	31.77		11.34	11.58	25.67	28.66
95th-Percentile Queue Length [ft/ln]	141.35	794.20		283.53	289.60	641.84	716.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.57	24.57	82.65	0.00	0.00	0.00	77.20	19.95	0.00	0.00	64.32	76.98
Movement LOS	C	C	F				E	B			E	E
d_A, Approach Delay [s/veh]	69.86			0.00			27.81			66.05		
Approach LOS	E			A			C			E		
d_I, Intersection Delay [s/veh]	52.69											
Intersection LOS	D											
Intersection V/C	0.878											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.282	2.001	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	795	0	1028	695
d_b, Bicycle Delay [s]	21.78	60.00	14.16	25.55
I_b,int, Bicycle LOS Score for Intersection	2.804	4.132	2.329	2.459
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.677

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	81	214	98	125	147	74	57	1670	63	71	1470	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	214	98	125	147	74	57	1670	63	71	1470	58
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	57	26	33	39	20	15	442	17	19	389	15
Total Analysis Volume [veh/h]	86	226	104	132	156	78	60	1767	67	75	1556	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	36	0	14	41	0	17	38	0	12	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	23	23	24	22	22	5	45	45	6	46	46
g / C, Green / Cycle	0.23	0.23	0.24	0.22	0.22	0.05	0.45	0.45	0.06	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.07	0.21	0.10	0.09	0.05	0.04	0.39	0.05	0.05	0.34	0.04
s, saturation flow rate [veh/h]	1267	1594	1291	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	309	364	244	378	321	75	2074	647	93	2127	664
d1, Uniform Delay [s]	31.79	37.55	38.59	33.13	31.79	47.21	24.40	15.73	46.54	21.76	15.02
k, delay calibration	0.11	0.13	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.49	10.07	1.87	0.72	0.39	17.50	4.67	0.32	14.72	2.27	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.91	0.54	0.41	0.24	0.80	0.85	0.10	0.80	0.73	0.09
d, Delay for Lane Group [s/veh]	32.27	47.62	40.46	33.85	32.18	64.71	29.06	16.05	61.26	24.03	15.29
Lane Group LOS	C	D	D	C	C	E	C	B	E	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.67	8.46	2.68	3.21	1.54	1.78	11.84	0.86	2.14	9.16	0.76
50th-Percentile Queue Length [ft/ln]	41.65	211.40	66.98	80.20	38.44	44.46	295.88	21.50	53.54	228.97	18.94
95th-Percentile Queue Length [veh/ln]	3.00	13.23	4.82	5.77	2.77	3.20	17.48	1.55	3.85	14.12	1.36
95th-Percentile Queue Length [ft/ln]	74.97	330.63	120.57	144.36	69.19	80.03	436.94	38.70	96.37	353.05	34.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.27	47.62	47.62	40.46	33.85	32.18	64.71	29.06	16.05	61.26	24.03	15.29
Movement LOS	C	D	D	D	C	C	E	C	B	E	C	B
d_A, Approach Delay [s/veh]	44.45			35.88			29.73			25.36		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	29.96											
Intersection LOS	C											
Intersection V/C	0.677											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.399	2.492	3.485	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	606	706	646	546
d_b, Bicycle Delay [s]	24.29	20.93	22.92	26.43
I_b,int, Bicycle LOS Score for Intersection	2.246	2.164	2.601	2.490
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Signalized	Delay (sec / veh):	18.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	200.00	200.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	17	16	58	18	18	42	80	1765	28	27	1532	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	16	58	18	18	42	80	1765	28	27	1532	0
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	4	16	5	5	11	20	480	8	7	416	0
Total Analysis Volume [veh/h]	18	16	63	18	18	42	80	1918	30	29	1665	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	0	12	55	0	13	56	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	14	0	0	17	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	14	13	13	13	13	13	6	49	49	3	46	46
g / C, Green / Cycle	0.15	0.15	0.15	0.15	0.15	0.15	0.06	0.55	0.55	0.03	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.04	0.01	0.01	0.03	0.05	0.42	0.02	0.02	0.36	0.00
s, saturation flow rate [veh/h]	1399	1710	1454	1493	1710	1454	1629	4584	1431	1603	4584	1454
c, Capacity [veh/h]	282	256	217	220	256	217	102	2506	782	48	2354	746
d1, Uniform Delay [s]	33.00	32.94	34.11	33.11	32.97	33.60	41.68	15.95	9.47	43.25	16.76	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	0.09	0.47	3.35	0.73	0.53	1.97	12.29	0.50	0.02	11.93	0.40	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.06	0.06	0.29	0.08	0.07	0.19	0.78	0.77	0.04	0.61	0.71	0.00
d, Delay for Lane Group [s/veh]	33.09	33.41	37.45	33.84	33.51	35.57	53.97	16.45	9.49	55.17	17.16	0.00
Lane Group LOS	C	C	D	C	C	D	D	B	A	E	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.34	0.33	1.41	0.38	0.37	0.92	2.00	8.38	0.23	0.76	7.35	0.00
50th-Percentile Queue Length [ft/ln]	8.57	8.27	35.37	9.49	9.32	22.89	50.11	209.58	5.87	19.08	183.87	0.00
95th-Percentile Queue Length [veh/ln]	0.62	0.60	2.55	0.68	0.67	1.65	3.61	13.13	0.42	1.37	11.80	0.00
95th-Percentile Queue Length [ft/ln]	15.42	14.89	63.67	17.09	16.78	41.21	90.20	328.29	10.56	34.35	295.06	0.00

Movement, Approach, & Intersection Results

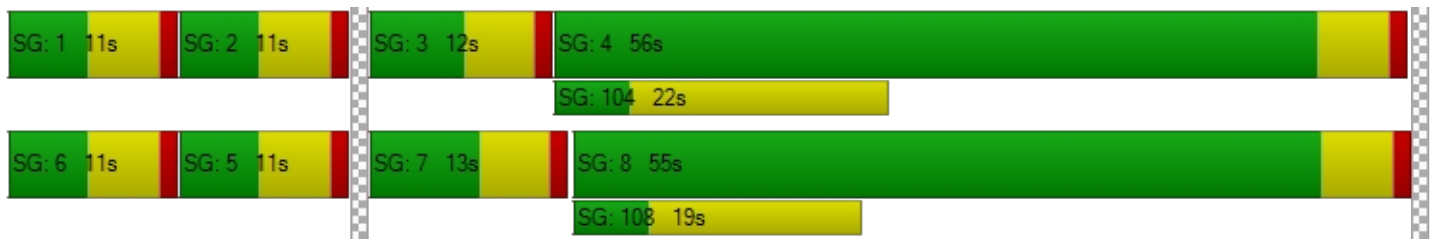
d_M, Delay for Movement [s/veh]	33.09	33.41	37.45	33.84	33.51	35.57	53.97	16.45	9.49	55.17	17.16	0.00
Movement LOS	C	C	D	C	C	D	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	35.98			34.70			17.83			17.81		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	18.61											
Intersection LOS	B											
Intersection V/C	0.480											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.175	2.335	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	118	118	1096	1118
d_b, Bicycle Delay [s]	39.86	39.86	9.20	8.76
I_b,int, Bicycle LOS Score for Intersection	1.640	1.688	2.675	2.491
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	21.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.544

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← →			← →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	150.00	200.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
	11	45	13	142	39	93	138	1697	8	6	1400	95
Base Volume Input [veh/h]	11	45	13	142	39	93	138	1697	8	6	1400	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	45	13	142	39	93	138	1697	8	6	1400	95
Peak Hour Factor	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	12	4	39	11	25	38	463	2	2	382	26
Total Analysis Volume [veh/h]	12	49	14	155	43	101	150	1851	9	7	1527	104
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	116	15	15	18	38	0	13	33	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	7	9	9	9	12	70	70	1	59	59
g / C, Green / Cycle	0.06	0.08	0.08	0.08	0.11	0.64	0.64	0.01	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.05	0.05	0.03	0.07	0.09	0.38	0.38	0.00	0.33	0.07
s, saturation flow rate [veh/h]	1617	3113	1683	1431	1603	3204	1679	1603	4584	1431
c, Capacity [veh/h]	96	265	143	122	176	2046	1072	16	2468	770
d1, Uniform Delay [s]	51.07	48.50	47.29	49.58	48.13	11.63	11.63	54.22	17.59	12.65
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.64	2.04	1.16	13.20	10.90	1.29	2.45	18.35	1.18	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.58	0.30	0.83	0.85	0.60	0.60	0.44	0.62	0.14
d, Delay for Lane Group [s/veh]	63.71	50.54	48.45	62.78	59.04	12.92	14.08	72.58	18.77	13.02
Lane Group LOS	E	D	D	E	E	B	B	E	B	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.32	2.07	1.12	3.10	4.41	7.49	8.20	0.27	8.12	1.23
50th-Percentile Queue Length [ft/ln]	58.00	51.66	28.09	77.49	110.28	187.22	204.92	6.67	203.04	30.80
95th-Percentile Queue Length [veh/ln]	4.18	3.72	2.02	5.58	7.86	11.98	12.89	0.48	12.80	2.22
95th-Percentile Queue Length [ft/ln]	104.40	92.99	50.55	139.49	196.39	299.42	322.30	12.00	319.89	55.44

Movement, Approach, & Intersection Results

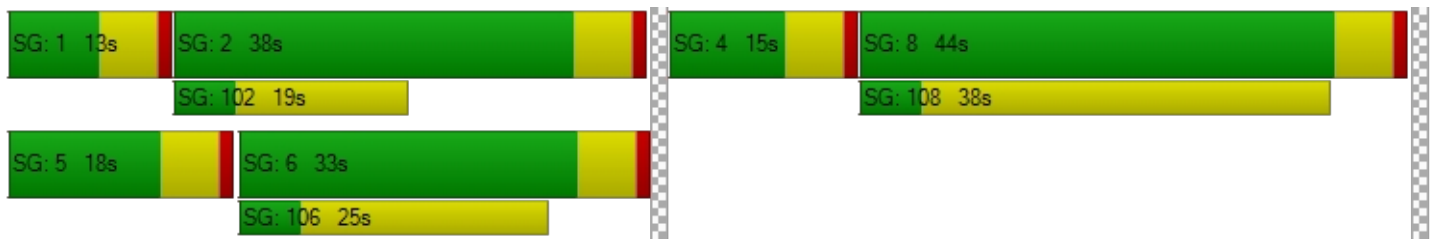
d_M, Delay for Movement [s/veh]	63.71	63.71	63.71	50.54	48.45	62.78	59.04	13.32	14.08	72.58	18.77	13.02
Movement LOS	E	E	E	D	D	E	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	63.71			54.37			16.73			18.63		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	21.18											
Intersection LOS	C											
Intersection V/C	0.544											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	46.37
I_p,int, Pedestrian LOS Score for Intersection	1.824	2.611	0.000	3.480
Crosswalk LOS	A	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	169	587	496
d_b, Bicycle Delay [s]	23.37	46.09	27.44	31.09
I_b,int, Bicycle LOS Score for Intersection	1.683	2.053	2.665	2.461
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	138.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.151

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	12	5	10	101	6	1112	507	2249	25	13	1930	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	5	10	101	6	1112	507	2249	25	13	1930	38
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	29	2	315	144	637	7	4	547	11
Total Analysis Volume [veh/h]	14	6	11	115	7	1261	575	2550	28	15	2188	43
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	14	68	0	11	65	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.04	0.12	0.50	0.36	0.53	0.53	0.01	0.46	0.46
s, saturation flow rate [veh/h]	814	1010	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	280	352	1560	454	1759	919	29	909	472
d1, Uniform Delay [s]	28.52	31.80	15.52	37.92	22.79	22.93	51.52	37.90	37.90
k, delay calibration	0.11	0.11	0.34	0.50	0.37	0.50	0.11	0.29	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.59	3.15	136.72	11.41	22.60	14.15	279.20	287.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.35	0.81	1.27	0.96	0.97	0.53	1.61	1.62
d, Delay for Lane Group [s/veh]	28.69	32.38	18.67	174.64	34.20	45.53	65.67	317.10	325.86
Lane Group LOS	C	C	B	F	C	D	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.59	2.66	11.23	28.32	20.11	24.08	0.50	46.33	49.34
50th-Percentile Queue Length [ft/ln]	14.72	66.41	280.63	707.99	502.84	601.99	12.39	1158.24	1233.45
95th-Percentile Queue Length [veh/ln]	1.06	4.78	16.72	42.27	27.47	32.13	0.89	72.09	76.46
95th-Percentile Queue Length [ft/ln]	26.49	119.54	418.00	1056.71	686.72	803.18	22.31	1802.28	1911.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.69	28.69	28.69	32.38	32.38	18.67	174.64	38.02	45.53	65.67	319.99	325.86
Movement LOS	C	C	C	C	C	B	F	D	D	E	F	F
d_A, Approach Delay [s/veh]	28.69			19.88			63.00			318.40		
Approach LOS	C			B			E			F		
d_I, Intersection Delay [s/veh]	138.29											
Intersection LOS	F											
Intersection V/C	1.151											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
l_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	127			127			1393			1327		
d_b, Bicycle Delay [s]	39.48			39.48			4.14			5.10		
l_b,int, Bicycle LOS Score for Intersection	1.611			3.842			3.294			2.795		
Bicycle LOS	A			D			C			C		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	166	747	45	65	713	117	48	65	69	40	139	108
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	747	45	65	713	117	48	65	69	40	139	108
Peak Hour Factor	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	206	12	18	197	32	13	18	19	11	38	30
Total Analysis Volume [veh/h]	183	825	50	72	788	129	53	72	76	44	154	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	31	0	14	29	0	15	34	0	11	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	12	50	50	5	42	42	4	7	7	7	10	10
g / C, Green / Cycle	0.14	0.55	0.55	0.06	0.47	0.47	0.04	0.08	0.08	0.08	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.11	0.26	0.03	0.04	0.25	0.09	0.03	0.04	0.05	0.03	0.08	0.09
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1450
c, Capacity [veh/h]	218	1765	788	90	1508	673	66	128	108	131	196	169
d1, Uniform Delay [s]	37.91	12.23	9.41	42.00	16.73	13.86	42.79	40.17	40.60	39.02	38.40	38.63
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.26	0.89	0.15	14.98	0.28	0.14	19.49	3.87	7.94	1.49	5.07	7.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.84	0.47	0.06	0.80	0.52	0.19	0.80	0.56	0.70	0.34	0.73	0.78
d, Delay for Lane Group [s/veh]	46.17	13.12	9.56	56.98	17.01	14.00	62.28	44.04	48.54	40.52	43.47	46.05
Lane Group LOS	D	B	A	E	B	B	E	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.32	4.72	0.45	1.88	5.11	1.40	1.49	1.62	1.83	0.93	3.15	3.01
50th-Percentile Queue Length [ft/ln]	108.02	118.12	11.35	47.11	127.70	34.89	37.23	40.61	45.65	23.30	78.87	75.28
95th-Percentile Queue Length [veh/ln]	7.73	8.29	0.82	3.39	8.81	2.51	2.68	2.92	3.29	1.68	5.68	5.42
95th-Percentile Queue Length [ft/ln]	193.24	207.24	20.44	84.80	220.37	62.81	67.01	73.10	82.17	41.93	141.97	135.50

Movement, Approach, & Intersection Results

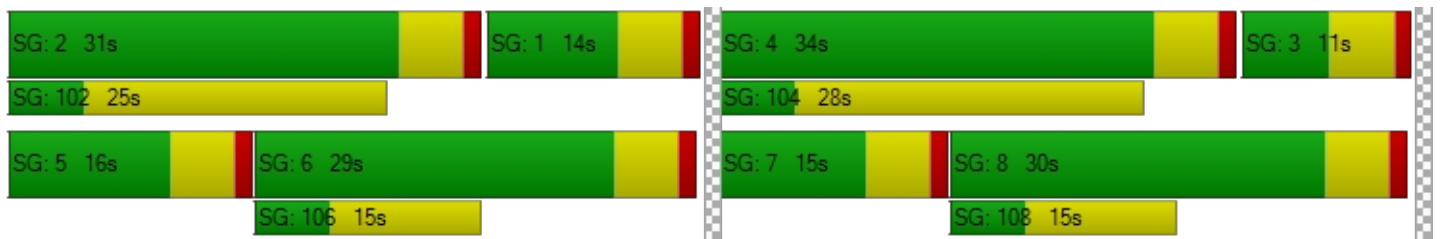
d_M, Delay for Movement [s/veh]	46.17	13.12	9.56	56.98	17.01	14.00	62.28	44.04	48.54	40.52	43.66	46.05
Movement LOS	D	B	A	E	B	B	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	18.67			19.52			50.55			44.12		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.64											
Intersection LOS	C											
Intersection V/C	0.483											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.827	2.938	2.475	2.451
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	527	638	549
d_b, Bicycle Delay [s]	22.97	24.42	20.88	23.69
I_b,int, Bicycle LOS Score for Intersection	2.432	2.376	1.725	1.821
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.249

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇌⇌⇌			⇌⇌			⇌⇌			⇌⇌⇌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	6	91	126	93	121	2	0	39	19	103	12	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	91	126	93	121	2	0	39	19	103	12	22
Peak Hour Factor	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	28	39	29	37	1	0	12	6	32	4	7
Total Analysis Volume [veh/h]	7	112	155	115	149	2	0	48	23	127	15	27
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	554	601	680	557	606	557	577	536	578	650
Degree of Utilization, x	0.01	0.19	0.23	0.21	0.25	0.00	0.12	0.24	0.03	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.04	0.68	0.87	0.77	0.98	0.00	0.42	0.92	0.08	0.13
95th-Percentile Queue Length [ft]	0.96	16.99	21.83	19.22	24.50	0.00	10.45	22.92	2.00	3.24
Approach Delay [s/veh]	9.75			10.70			9.81		10.81	
Approach LOS	A			B			A		B	
Intersection Delay [s/veh]	10.31									
Intersection LOS	B									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.629

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	58	40	303	163	42	149
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	40	303	163	42	149
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	11	85	46	12	42
Total Analysis Volume [veh/h]	65	45	342	184	47	168
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	662	837	741
Degree of Utilization, x	0.17	0.63	0.29

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.59	4.55	1.21
95th-Percentile Queue Length [ft]	14.84	113.74	30.13
Approach Delay [s/veh]	9.53	14.30	9.84
Approach LOS	A	B	A
Intersection Delay [s/veh]	12.56		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 19.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.789

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	27	66	5	316	59	30	18	145	26	7	104	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	66	5	316	59	30	18	145	26	7	104	95
Peak Hour Factor	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	20	1	94	18	9	5	43	8	2	31	28
Total Analysis Volume [veh/h]	32	78	6	376	70	36	21	172	31	8	124	113
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	511	583	611	574	597
Degree of Utilization, x	0.22	0.01	0.79	0.39	0.41

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.81	0.03	7.62	1.84	2.00
95th-Percentile Queue Length [ft]	20.23	0.78	190.56	46.02	49.93
Approach Delay [s/veh]	11.52		27.37	13.22	13.16
Approach LOS	B		D	B	B
Intersection Delay [s/veh]	19.41				
Intersection LOS	C				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.1
 Level Of Service: B
 Volume to Capacity (v/c): 0.030

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	41	93	24	5	64	13	15	38	13	9	38	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	93	24	5	64	13	15	38	13	9	38	5
Peak Hour Factor	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	26	7	1	18	4	4	11	4	3	11	1
Total Analysis Volume [veh/h]	46	105	27	6	72	15	17	43	15	10	43	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.02	0.02	0.07	0.01
d_M, Delay for Movement [s/veh]	7.46	0.00	0.00	7.49	0.00	0.00	12.08	12.01	9.45	12.06	11.83	9.51
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.09	0.01	0.01	0.01	0.40	0.40	0.40	0.32	0.32	0.32
95th-Percentile Queue Length [ft/ln]	2.36	2.36	2.36	0.31	0.31	0.31	10.12	10.12	10.12	8.12	8.12	8.12
d_A, Approach Delay [s/veh]	1.93			0.48			11.51			11.63		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	4.78											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.059

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	1	35	2	9	26	14	28	42	1	2	39	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	35	2	9	26	14	28	42	1	2	39	13
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	1	3	8	4	8	12	0	1	11	4
Total Analysis Volume [veh/h]	1	41	2	10	30	16	33	49	1	2	45	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.06	0.00	0.01	0.04	0.02	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.37	10.50	8.87	10.38	10.48	8.91	7.38	0.00	0.00	7.32	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.20	0.20	0.20	0.23	0.23	0.23	0.07	0.07	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.96	4.96	4.96	5.83	5.83	5.83	1.64	1.64	1.64	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.42			10.01			2.94			0.24		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.21											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 13: Dwy 1/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.8
 Level Of Service: C
 Volume to Capacity (v/c): 0.165

Intersection Setup

Name	3rd		3rd		Dwy 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		←↑↑		↑	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 1	
Base Volume Input [veh/h]	385	20	10	420	66	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	385	20	10	420	66	34
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	5	3	107	17	9
Total Analysis Volume [veh/h]	393	20	10	429	67	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.17	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	8.18	0.00	15.81	11.44
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	0.78	0.78
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.66	0.00	19.49	19.49
d_A, Approach Delay [s/veh]	0.00		0.19		14.31	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.62					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 14: Dwy 2/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 16.6
 Level Of Service: C
 Volume to Capacity (v/c): 0.090

Intersection Setup

Name	3rd		3rd		Dwy 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		↩↑↑		↔	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 2	
Base Volume Input [veh/h]	337	100	57	410	30	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	337	100	57	410	30	39
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	86	26	15	105	8	10
Total Analysis Volume [veh/h]	344	102	58	418	31	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.09	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.42	0.00	16.65	10.79
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.17	0.00	0.49	0.49
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.13	0.00	12.24	12.24
d_A, Approach Delay [s/veh]	0.00		1.03		13.35	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.45					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 15: Bear Valley/Dwy 3**

Control Type:	Two-way stop	Delay (sec / veh):	18.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.081

Intersection Setup

Name	Dwy 3		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 3		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	24	0	1851	1506	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	24	0	1851	1506	23
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	0	472	384	6
Total Analysis Volume [veh/h]	0	24	0	1889	1537	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.08	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	18.27	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.26	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	6.58	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.27		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 16: Bear Valley/Dwy 4**

Control Type:	Two-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.166

Intersection Setup

Name	Dwy 4		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 4		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	49	0	1851	1480	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	0	1851	1480	40
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	472	378	10
Total Analysis Volume [veh/h]	0	50	0	1889	1510	41
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.17	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	19.31	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.59	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	14.65	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.31		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 17: Bear Valley/Dwy 5**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 19.3
 Level Of Service: C
 Volume to Capacity (v/c): 0.165

Intersection Setup

Name	Dwy 5		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 5		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	49	0	1851	1476	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	0	1851	1476	40
Peak Hour Factor	1.0000	0.9800	1.0000	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	472	377	10
Total Analysis Volume [veh/h]	0	50	0	1889	1506	41
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.17	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	19.26	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.58	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	14.60	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.26		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 18: Dwy 6/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.0
 Level Of Service: B
 Volume to Capacity (v/c): 0.048

Intersection Setup

Name	2nd		2nd		Dwy 6	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	70.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 6	
Base Volume Input [veh/h]	67	212	202	23	24	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	212	202	23	24	88
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	54	52	6	6	22
Total Analysis Volume [veh/h]	68	216	206	23	24	90
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.05	0.10
d_M, Delay for Movement [s/veh]	7.84	0.00	0.00	0.00	12.96	9.72
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.51	0.51
95th-Percentile Queue Length [ft/ln]	4.02	0.00	0.00	0.00	12.75	12.75
d_A, Approach Delay [s/veh]	1.88		0.00		10.40	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.74					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 19: Dwy 7/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.043

Intersection Setup

Name	2nd		2nd		Dwy 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 7	
Base Volume Input [veh/h]	44	185	203	13	24	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	185	203	13	24	24
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	47	52	3	6	6
Total Analysis Volume [veh/h]	45	189	207	13	24	24
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.04	0.03
d_M, Delay for Movement [s/veh]	7.77	0.00	0.00	0.00	11.81	9.28
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.00	0.22	0.22
95th-Percentile Queue Length [ft/ln]	2.59	0.00	0.00	0.00	5.53	5.53
d_A, Approach Delay [s/veh]	1.49		0.00		10.55	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.70					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 20: Dwy 8/2nd Ave

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.0
 Level Of Service: A
 Volume to Capacity (v/c): 0.038

Intersection Setup

Name	2nd		2nd		Dwy 8	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	⇕		⇕⇨		⇨	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 8	
Base Volume Input [veh/h]	0	218	191	10	0	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	218	191	10	0	34
Peak Hour Factor	0.9200	0.9800	0.9800	0.9800	0.9200	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	56	49	3	0	9
Total Analysis Volume [veh/h]	0	222	195	10	0	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.01
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	2.92
d_A, Approach Delay [s/veh]	0.00		0.00		9.01	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.68					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name	I-15 SB Ramp			Bear Valley			Bear Valley					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				⇐⇐⇐⇐			⇐⇐⇐			⇐⇐⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	350	0	424	0	1681	294	0	1697	422
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	350	0	424	0	1681	294	0	1697	422
Peak Hour Factor	0.9710	0.9710	0.9710	0.9640	1.0000	0.9640	1.0000	0.9640	0.9640	1.0000	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	91	0	110	0	436	76	0	440	109
Total Analysis Volume [veh/h]	0	0	0	363	0	440	0	1744	305	0	1760	438
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		19	19	60	60	60	60
g / C, Green / Cycle		0.21	0.21	0.67	0.67	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate		0.12	0.17	0.38	0.21	0.36	0.37
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1475
c, Capacity [veh/h]		660	537	3070	958	3070	988
d1, Uniform Delay [s]		31.52	33.70	7.90	6.22	7.64	7.80
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.72	3.16	0.77	0.88	0.68	2.26
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.55	0.82	0.57	0.32	0.54	0.56
d, Delay for Lane Group [s/veh]		32.23	36.85	8.66	7.09	8.32	10.05
Lane Group LOS		C	D	A	A	A	B
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		3.42	4.58	4.83	2.14	4.41	4.92
50th-Percentile Queue Length [ft/ln]		85.43	114.48	120.75	53.45	110.25	123.07
95th-Percentile Queue Length [veh/ln]		6.15	8.09	8.43	3.85	7.85	8.56
95th-Percentile Queue Length [ft/ln]		153.77	202.21	210.85	96.22	196.34	214.04

Movement, Approach, & Intersection Results

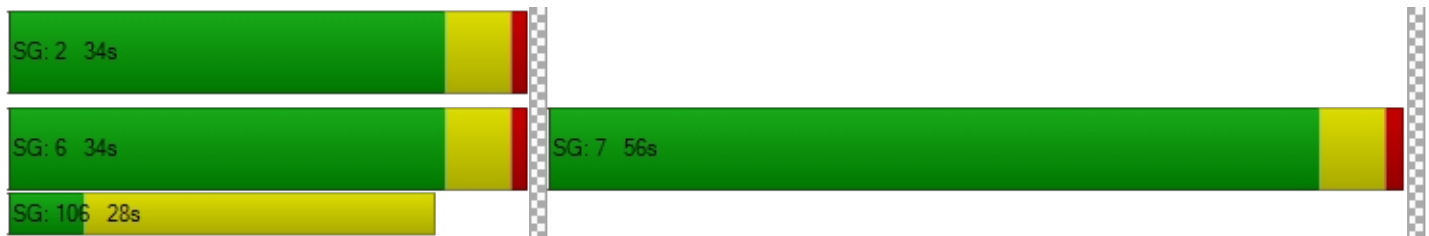
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	32.23	0.00	36.85	0.00	8.66	7.09	0.00	8.43	10.05
Movement LOS				C		D		A	A		A	B
d_A, Approach Delay [s/veh]	0.00			34.76			8.43			8.75		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	12.76											
Intersection LOS	B											
Intersection V/C	0.554											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.624	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.687	2.466
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	105.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.091

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	410	2	674	0	0	0	295	1704	0	0	1756	215
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	410	2	674	0	0	0	295	1704	0	0	1756	215
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	105	1	172	0	0	0	75	435	0	0	448	55
Total Analysis Volume [veh/h]	419	2	688	0	0	0	301	1741	0	0	1794	220
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	150
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	64	64	0	0	0	0	29	86	0	0	57	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	150	150		150	150	150	150
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	59	59		24	81	52	52
g / C, Green / Cycle	0.39	0.39		0.16	0.54	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.26	0.48		0.19	0.38	0.42	0.42
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1591
c, Capacity [veh/h]	626	558		253	2471	1108	550
d1, Uniform Delay [s]	37.80	45.72		63.14	25.69	49.07	49.07
k, delay calibration	0.21	0.50		0.38	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.49	119.45		110.72	1.71	104.06	115.02
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	1.23		1.19	0.70	1.21	1.22
d, Delay for Lane Group [s/veh]	40.29	165.17		173.86	27.41	153.13	164.09
Lane Group LOS	D	F		F	C	F	F
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	13.02	38.71		17.34	15.26	36.27	37.69
50th-Percentile Queue Length [ft/ln]	325.44	967.84		433.53	381.50	906.77	942.28
95th-Percentile Queue Length [veh/ln]	18.93	56.04		26.17	21.67	52.12	54.16
95th-Percentile Queue Length [ft/ln]	473.37	1401.10		654.25	541.66	1302.90	1354.01

Movement, Approach, & Intersection Results

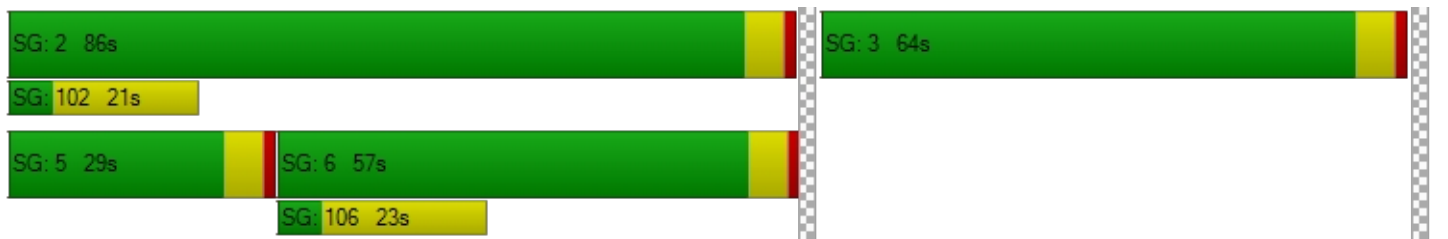
d_M, Delay for Movement [s/veh]	40.29	40.29	165.17	0.00	0.00	0.00	173.86	27.41	0.00	0.00	155.88	164.09
Movement LOS	D	D	F				F	C			F	F
d_A, Approach Delay [s/veh]	117.76			0.00			49.00			156.78		
Approach LOS	F			A			D			F		
d_I, Intersection Delay [s/veh]	105.79											
Intersection LOS	F											
Intersection V/C	1.091											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	66.27	66.27	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.446	2.080	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	783	0	1076	689
d_b, Bicycle Delay [s]	27.79	75.00	16.01	32.21
I_b,int, Bicycle LOS Score for Intersection	3.389	4.132	2.683	2.667
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	47.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.794

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	114	265	111	162	319	105	107	1866	126	126	1736	139
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	265	111	162	319	105	107	1866	126	126	1736	139
Peak Hour Factor	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	67	28	41	81	27	27	474	32	32	441	35
Total Analysis Volume [veh/h]	116	269	113	165	324	107	109	1896	128	128	1764	141
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	32	0	18	41	0	14	45	0	15	46	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	26	26	31	29	29	8	45	45	9	46	46
g / C, Green / Cycle	0.24	0.24	0.28	0.27	0.27	0.08	0.41	0.41	0.08	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.10	0.24	0.20	0.19	0.07	0.07	0.41	0.09	0.08	0.38	0.10
s, saturation flow rate [veh/h]	1120	1599	807	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	199	382	264	450	382	121	1889	590	136	1931	603
d1, Uniform Delay [s]	36.05	41.85	41.81	36.57	31.92	50.44	32.34	20.88	50.09	29.96	20.45
k, delay calibration	0.11	0.24	0.24	0.14	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.71	31.74	5.25	2.81	0.39	19.90	21.57	0.84	24.29	8.15	0.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	1.00	0.62	0.72	0.28	0.90	1.00	0.22	0.94	0.91	0.23
d, Delay for Lane Group [s/veh]	38.76	73.59	47.05	39.38	32.31	70.34	53.91	21.73	74.38	38.11	21.36
Lane Group LOS	D	E	D	D	C	E	F	C	E	D	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.61	13.25	3.81	8.00	2.25	3.53	18.95	2.13	4.28	14.73	2.33
50th-Percentile Queue Length [ft/ln]	65.29	331.31	95.17	200.09	56.19	88.26	473.74	53.25	106.99	368.34	58.13
95th-Percentile Queue Length [veh/ln]	4.70	19.22	6.85	12.64	4.05	6.35	26.16	3.83	7.67	21.03	4.19
95th-Percentile Queue Length [ft/ln]	117.52	480.56	171.30	316.08	101.15	158.87	653.93	95.86	191.81	525.71	104.63

Movement, Approach, & Intersection Results

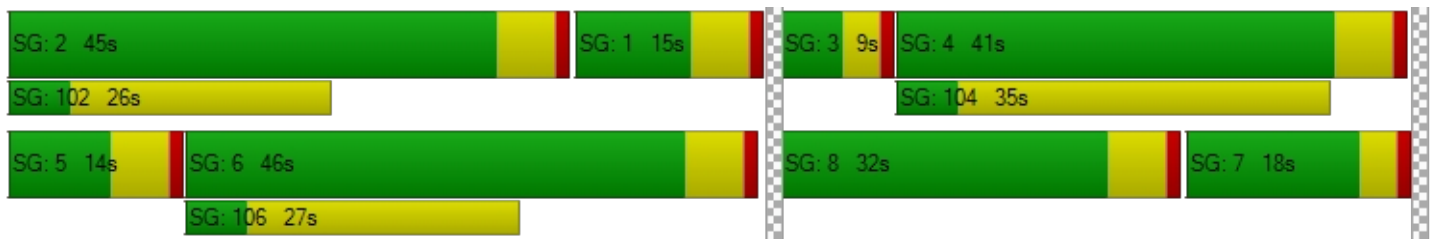
d_M, Delay for Movement [s/veh]	38.76	73.59	73.59	47.05	39.38	32.31	70.34	53.91	21.73	74.38	38.11	21.36
Movement LOS	D	E	E	D	D	C	E	F	C	E	D	C
d_A, Approach Delay [s/veh]	65.48			40.23			52.82			39.23		
Approach LOS	E			D			D			D		
d_I, Intersection Delay [s/veh]	47.34											
Intersection LOS	D											
Intersection V/C	0.794											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	46.37	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.536	2.601	3.603	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	478	642	715	733
d_b, Bicycle Delay [s]	31.84	25.36	22.72	22.08
I_b,int, Bicycle LOS Score for Intersection	2.381	2.543	2.733	2.678
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Signalized	Delay (sec / veh):	18.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.556

Intersection Setup

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	200.00	200.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	19	21	70	20	20	43	112	1977	67	48	1946	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	21	70	20	20	43	112	1977	67	48	1946	0
Peak Hour Factor	0.9700	1.0000	0.9700	1.0000	1.0000	1.0000	1.0000	0.9700	0.9700	0.9700	0.9700	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	18	5	5	11	28	510	17	12	502	0
Total Analysis Volume [veh/h]	20	21	72	20	20	43	112	2038	69	49	2006	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	0	13	34	0	34	55	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	23	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	9	9	9	10	9	9	7	53	53	4	49	49
g / C, Green / Cycle	0.10	0.10	0.10	0.11	0.10	0.10	0.08	0.59	0.59	0.04	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.05	0.01	0.01	0.03	0.07	0.44	0.05	0.03	0.44	0.00
s, saturation flow rate [veh/h]	1475	1710	1454	1629	1710	1454	1629	4584	1431	1603	4584	1454
c, Capacity [veh/h]	251	167	142	219	167	142	132	2692	840	63	2501	793
d1, Uniform Delay [s]	37.11	37.10	38.56	36.65	37.08	37.77	40.81	13.82	8.06	42.84	16.54	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	0.13	1.54	12.31	0.82	1.46	5.40	13.49	0.45	0.04	17.69	0.63	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.08	0.13	0.51	0.09	0.12	0.30	0.85	0.76	0.08	0.77	0.80	0.00
d, Delay for Lane Group [s/veh]	37.25	38.64	50.86	37.47	38.54	43.16	54.29	14.26	8.10	60.53	17.17	0.00
Lane Group LOS	D	D	D	D	D	D	D	B	A	E	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.41	0.49	1.98	0.45	0.47	1.09	2.80	8.06	0.48	1.33	9.12	0.00
50th-Percentile Queue Length [ft/ln]	10.21	12.26	49.46	11.22	11.66	27.15	70.08	201.56	12.02	33.36	227.90	0.00
95th-Percentile Queue Length [veh/ln]	0.74	0.88	3.56	0.81	0.84	1.95	5.05	12.72	0.87	2.40	14.07	0.00
95th-Percentile Queue Length [ft/ln]	18.38	22.07	89.03	20.20	20.98	48.87	126.15	317.98	21.64	60.05	351.69	0.00

Movement, Approach, & Intersection Results

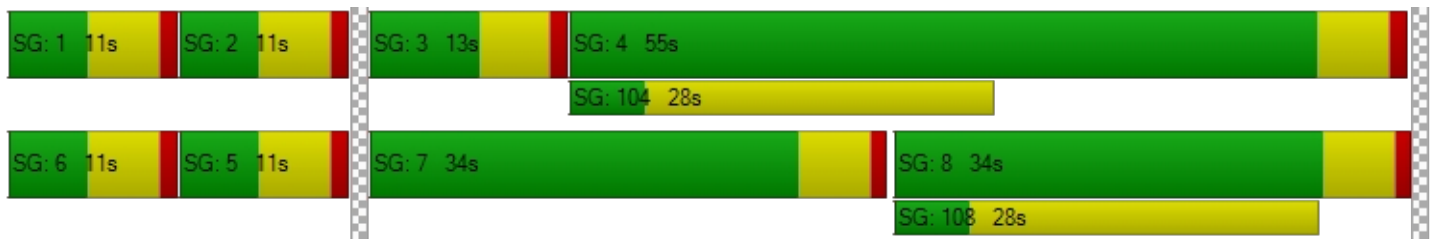
d_M, Delay for Movement [s/veh]	37.25	38.64	50.86	37.47	38.54	43.16	54.29	14.26	8.10	60.53	17.17	0.00
Movement LOS	D	D	D	D	D	D	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	46.18			40.68			16.09			18.20		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.28											
Intersection LOS	B											
Intersection V/C	0.556											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.194	2.343	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	118	118	629	1096
d_b, Bicycle Delay [s]	39.86	39.86	21.15	9.20
I_b,int, Bicycle LOS Score for Intersection	1.653	1.697	2.780	2.690
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	30.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← →			← →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	150.00	200.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
	26	48	31	188	60	157	156	1846	23	25	1806	114
Base Volume Input [veh/h]	26	48	31	188	60	157	156	1846	23	25	1806	114
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	48	31	188	60	157	156	1846	23	25	1806	114
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	13	8	49	16	41	41	482	6	7	471	30
Total Analysis Volume [veh/h]	27	50	32	196	63	164	163	1927	24	26	1885	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	116	18	18	17	31	0	17	31	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	9	12	12	12	11	63	63	3	54	54
g / C, Green / Cycle	0.09	0.11	0.11	0.11	0.10	0.57	0.57	0.03	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.07	0.06	0.04	0.11	0.10	0.40	0.40	0.02	0.41	0.08
s, saturation flow rate [veh/h]	1581	3113	1683	1431	1603	3204	1672	1603	4584	1431
c, Capacity [veh/h]	135	350	189	161	166	1824	952	42	2255	704
d1, Uniform Delay [s]	49.45	46.31	45.08	48.88	49.29	17.04	17.05	53.10	24.15	15.51
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.60	1.41	1.03	38.33	29.01	2.29	4.35	14.30	3.87	0.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.56	0.33	1.02	0.98	0.70	0.70	0.62	0.84	0.17
d, Delay for Lane Group [s/veh]	60.06	47.71	46.10	87.21	78.31	19.33	21.40	67.40	28.02	16.03
Lane Group LOS	E	D	D	F	E	B	C	E	C	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.26	2.53	1.60	5.98	5.62	10.56	11.59	0.85	13.31	1.62
50th-Percentile Queue Length [ft/ln]	81.39	63.37	39.93	149.48	140.55	264.07	289.76	21.32	332.86	40.57
95th-Percentile Queue Length [veh/ln]	5.86	4.56	2.88	10.07	9.51	15.89	17.17	1.53	19.30	2.92
95th-Percentile Queue Length [ft/ln]	146.50	114.06	71.88	251.72	237.77	397.32	429.35	38.37	482.46	73.03

Movement, Approach, & Intersection Results

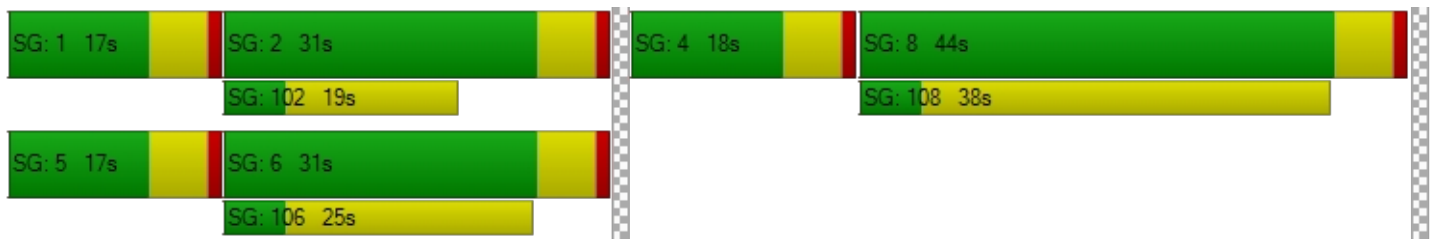
d_M, Delay for Movement [s/veh]	60.06	60.06	60.06	47.71	46.10	87.21	78.31	20.02	21.40	67.40	28.02	16.03
Movement LOS	E	E	E	D	D	F	E	C	C	E	C	B
d_A, Approach Delay [s/veh]	60.06			62.79			24.53			27.82		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	30.25											
Intersection LOS	C											
Intersection V/C	0.696											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	46.37
I_p,int, Pedestrian LOS Score for Intersection	1.888	2.648	0.000	3.587
Crosswalk LOS	A	B	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	224	460	460
d_b, Bicycle Delay [s]	23.37	43.39	32.61	32.61
I_b,int, Bicycle LOS Score for Intersection	1.739	2.258	2.722	2.676
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	153.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.183

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rrr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	23	5	10	93	1	814	749	2848	10	3	2029	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	5	10	93	1	814	749	2848	10	3	2029	42
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	3	25	0	216	199	757	3	1	539	11
Total Analysis Volume [veh/h]	24	5	11	99	1	865	796	3027	11	3	2156	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	68	68	0	11	11	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	101	101	101	101	101	101	101	101	101
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	25	25	60	30	60	60	0	30	30
g / C, Green / Cycle	0.25	0.25	0.60	0.30	0.59	0.59	0.00	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.05	0.09	0.34	0.50	0.62	0.62	0.00	0.45	0.45
s, saturation flow rate [veh/h]	883	1141	2532	1603	3204	1680	1603	3204	1665
c, Capacity [veh/h]	276	354	1515	477	1887	989	8	951	494
d1, Uniform Delay [s]	31.83	31.51	12.37	35.45	20.74	20.74	50.03	35.48	35.48
k, delay calibration	0.11	0.11	0.12	0.50	0.45	0.50	0.11	0.25	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	0.43	0.38	310.74	36.28	45.04	25.24	237.52	246.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.28	0.57	1.67	1.06	1.06	0.37	1.52	1.53
d, Delay for Lane Group [s/veh]	32.06	31.94	12.75	346.19	57.02	65.78	75.26	273.00	282.24
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.87	2.05	5.59	52.10	27.79	31.55	0.13	42.30	45.24
50th-Percentile Queue Length [ft/ln]	21.70	51.34	139.73	1302.44	694.78	788.63	3.27	1057.47	1130.93
95th-Percentile Queue Length [veh/ln]	1.56	3.70	9.47	81.34	38.09	42.70	0.24	65.36	69.59
95th-Percentile Queue Length [ft/ln]	39.06	92.42	236.66	2033.59	952.28	1067.42	5.88	1634.04	1739.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.06	32.06	32.06	31.94	31.94	12.75	346.19	60.01	65.78	75.26	276.04	282.24
Movement LOS	C	C	C	C	C	B	F	F	E	E	F	F
d_A, Approach Delay [s/veh]	32.06			14.74			119.44			275.89		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	153.56											
Intersection LOS	F											
Intersection V/C	1.183											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	127
d_b, Bicycle Delay [s]	39.48	39.48	4.14	39.48
I_b,int, Bicycle LOS Score for Intersection	1.626	3.152	3.668	2.772
Bicycle LOS	A	C	D	C

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	28.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	154	1080	44	96	769	86	93	109	149	54	77	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	154	1080	44	96	769	86	93	109	149	54	77	126
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	290	12	26	206	23	25	29	40	14	21	34
Total Analysis Volume [veh/h]	165	1159	47	103	825	92	100	117	160	58	83	135
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	31	0	14	30	0	11	34	0	11	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	11	44	44	7	40	40	7	12	12	5	11	11
g / C, Green / Cycle	0.12	0.49	0.49	0.08	0.44	0.44	0.08	0.14	0.14	0.06	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.10	0.36	0.03	0.06	0.26	0.06	0.06	0.07	0.11	0.04	0.05	0.09
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1431
c, Capacity [veh/h]	199	1562	698	127	1418	633	126	232	197	96	200	170
d1, Uniform Delay [s]	38.47	18.51	12.22	40.77	18.84	14.95	40.75	35.98	37.70	41.27	36.76	38.59
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.44	3.22	0.19	11.50	0.38	0.10	10.59	1.70	7.86	5.94	1.37	8.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.83	0.74	0.07	0.81	0.58	0.15	0.79	0.51	0.81	0.60	0.41	0.79
d, Delay for Lane Group [s/veh]	46.91	21.74	12.41	52.27	19.22	15.05	51.34	37.68	45.55	47.21	38.13	46.69
Lane Group LOS	D	C	B	D	B	B	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.92	9.50	0.51	2.55	5.83	1.04	2.47	2.40	3.71	1.36	1.69	3.14
50th-Percentile Queue Length [ft/ln]	98.07	237.51	12.68	63.70	145.86	25.94	61.80	60.04	92.83	33.97	42.21	78.39
95th-Percentile Queue Length [veh/ln]	7.06	14.56	0.91	4.59	9.80	1.87	4.45	4.32	6.68	2.45	3.04	5.64
95th-Percentile Queue Length [ft/ln]	176.52	363.88	22.83	114.65	244.89	46.70	111.25	108.07	167.10	61.14	75.99	141.10

Movement, Approach, & Intersection Results

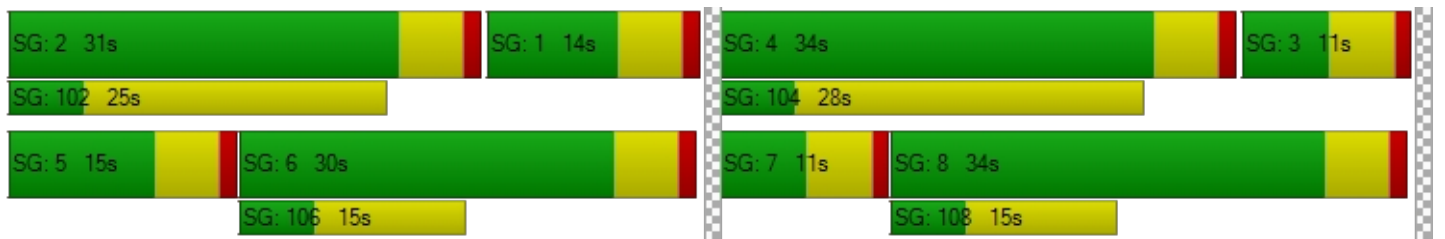
d_M, Delay for Movement [s/veh]	46.91	21.74	12.41	52.27	19.22	15.05	51.34	37.68	45.55	47.21	38.13	46.69
Movement LOS	D	C	B	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	24.45			22.18			44.65			44.22		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	27.98											
Intersection LOS	C											
Intersection V/C	0.583											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.912	3.043	2.488	2.460
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	549	638	638
d_b, Bicycle Delay [s]	22.97	23.69	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	2.691	2.401	1.871	1.787
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.327

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	24	123	131	45	104	1	0	14	15	149	16	92
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	123	131	45	104	1	0	14	15	149	16	92
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	37	40	14	31	0	0	4	5	45	5	28
Total Analysis Volume [veh/h]	29	149	159	54	126	1	0	17	18	180	19	111
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	550	596	674	531	573	548	579	550	595	671
Degree of Utilization, x	0.05	0.25	0.24	0.10	0.22	0.00	0.06	0.33	0.03	0.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.17	0.98	0.91	0.34	0.84	0.00	0.19	1.42	0.10	0.59
95th-Percentile Queue Length [ft]	4.16	24.60	22.87	8.45	21.03	0.00	4.82	35.40	2.47	14.73
Approach Delay [s/veh]	10.15			10.61			9.32		11.01	
Approach LOS	B			B			A		B	
Intersection Delay [s/veh]	10.52									
Intersection LOS	B									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.460

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	170	44	162	106	49	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	44	162	106	49	185
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	14	51	33	15	58
Total Analysis Volume [veh/h]	213	55	203	133	61	231
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	650	730	687
Degree of Utilization, x	0.41	0.46	0.43

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.02	2.43	2.13
95th-Percentile Queue Length [ft]	50.53	60.86	53.23
Approach Delay [s/veh]	12.38	12.05	12.07
Approach LOS	B	B	B
Intersection Delay [s/veh]	12.16		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 17.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.660

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	32	68	5	156	90	55	47	114	29	5	177	165
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	68	5	156	90	55	47	114	29	5	177	165
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	20	1	46	27	16	14	34	9	1	53	49
Total Analysis Volume [veh/h]	38	81	6	186	107	65	56	136	35	6	211	196
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	485	550	571	567	626
Degree of Utilization, x	0.25	0.01	0.63	0.40	0.66

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.96	0.03	4.34	1.92	4.92
95th-Percentile Queue Length [ft]	23.93	0.83	108.56	48.00	123.04
Approach Delay [s/veh]	12.38		19.34	13.54	19.23
Approach LOS	B		C	B	C
Intersection Delay [s/veh]	17.35				
Intersection LOS	C				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.046

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	50	87	13	9	111	24	21	60	19	21	95	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	87	13	9	111	24	21	60	19	21	95	8
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	23	3	2	29	6	6	16	5	6	25	2
Total Analysis Volume [veh/h]	53	92	14	10	118	25	22	64	20	22	101	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.01	0.00	0.00	0.05	0.12	0.02	0.05	0.19	0.01
d_M, Delay for Movement [s/veh]	7.60	0.00	0.00	7.44	0.00	0.00	14.46	13.17	10.41	14.58	13.85	10.89
Movement LOS	A	A	A	A	A	A	B	B	B	B	B	B
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.11	0.02	0.02	0.02	0.69	0.69	0.69	0.94	0.94	0.94
95th-Percentile Queue Length [ft/ln]	2.86	2.86	2.86	0.51	0.51	0.51	17.29	17.29	17.29	23.60	23.60	23.60
d_A, Approach Delay [s/veh]	2.53			0.49			12.92			13.79		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	6.65											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.028

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	0	46	0	18	61	28	21	65	2	2	82	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	46	0	18	61	28	21	65	2	2	82	15
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	0	5	16	7	6	17	1	1	22	4
Total Analysis Volume [veh/h]	0	48	0	19	64	30	22	68	2	2	86	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.03	0.09	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.26	10.81	9.04	11.26	11.24	9.64	7.45	0.00	0.00	7.35	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.23	0.23	0.23	0.54	0.54	0.54	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.79	5.79	5.79	13.60	13.60	13.60	1.12	1.12	1.12	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.81			10.82			1.78			0.14		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.38											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 13: Dwy 1/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 25.8
 Level Of Service: D
 Volume to Capacity (v/c): 0.190

Intersection Setup

Name	3rd		3rd		Dwy 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 1	
Base Volume Input [veh/h]	599	67	33	683	39	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	599	67	33	683	39	19
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	153	17	8	174	10	5
Total Analysis Volume [veh/h]	611	68	34	697	40	19
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.04	0.01	0.19	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	9.11	0.00	25.80	14.19
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.12	0.00	0.82	0.82
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.91	0.00	20.39	20.39
d_A, Approach Delay [s/veh]	0.00		0.42		22.06	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.10					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 14: Dwy 2/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 31.8
 Level Of Service: D
 Volume to Capacity (v/c): 0.338

Intersection Setup

Name	3rd		3rd		Dwy 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		↩↑↑		↔	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 2	
Base Volume Input [veh/h]	580	87	52	658	67	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	580	87	52	658	67	60
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	148	22	13	168	17	15
Total Analysis Volume [veh/h]	592	89	53	671	68	61
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.06	0.01	0.34	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.21	0.00	31.75	19.33
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.19	0.00	2.07	2.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.64	0.00	51.86	51.86
d_A, Approach Delay [s/veh]	0.00		0.67		25.88	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.49					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 15: Bear Valley/Dwy 3**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 25.3
 Level Of Service: D
 Volume to Capacity (v/c): 0.136

Intersection Setup

Name	Dwy 3		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱		↑↑↑		↑↑↑↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 3		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	27	0	2080	1974	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	27	0	2080	1974	28
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	7	0	531	504	7
Total Analysis Volume [veh/h]	0	28	0	2122	2014	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.14	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	25.30	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.46	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	11.61	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	25.30		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 16: Bear Valley/Dwy 4**

Control Type:	Two-way stop	Delay (sec / veh):	28.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.258

Intersection Setup

Name	Dwy 4		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 4		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	53	0	2080	1950	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	53	0	2080	1950	51
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	0	531	497	13
Total Analysis Volume [veh/h]	0	54	0	2122	1990	52
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.26	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	28.12	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.99	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	24.85	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	28.12		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 17: Bear Valley/Dwy 5**

Control Type:	Two-way stop	Delay (sec / veh):	28.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.259

Intersection Setup

Name	Dwy 5		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 5		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	53	0	2080	1954	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	53	0	2080	1954	51
Peak Hour Factor	1.0000	0.9800	1.0000	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	0	531	498	13
Total Analysis Volume [veh/h]	0	54	0	2122	1994	52
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.26	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	28.21	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	1.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	24.94	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	28.21		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 18: Dwy 6/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.7
 Level Of Service: C
 Volume to Capacity (v/c): 0.072

Intersection Setup

Name	2nd		2nd		Dwy 6	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↩ ↑ ↑		↑ ↩		↔	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	70.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 6	
Base Volume Input [veh/h]	86	234	318	12	27	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	86	234	318	12	27	113
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	60	81	3	7	29
Total Analysis Volume [veh/h]	88	239	324	12	28	115
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results




V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.07	0.14
d_M, Delay for Movement [s/veh]	8.18	0.00	0.00	0.00	15.69	10.63
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.23	0.00	0.00	0.00	0.78	0.78
95th-Percentile Queue Length [ft/ln]	5.82	0.00	0.00	0.00	19.50	19.50
d_A, Approach Delay [s/veh]	2.20		0.00		11.62	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.95					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 19: Dwy 7/2nd Ave

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.062

Intersection Setup

Name	2nd		2nd		Dwy 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 7	
Base Volume Input [veh/h]	58	195	308	12	27	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	195	308	12	27	27
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	50	79	3	7	7
Total Analysis Volume [veh/h]	59	199	314	12	28	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.06	0.03
d_M, Delay for Movement [s/veh]	8.07	0.00	0.00	0.00	13.62	9.86
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.00	0.31	0.31
95th-Percentile Queue Length [ft/ln]	3.77	0.00	0.00	0.00	7.83	7.83
d_A, Approach Delay [s/veh]	1.85		0.00		11.74	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.77					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 20: Dwy 8/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.4
 Level Of Service: A
 Volume to Capacity (v/c): 0.023

Intersection Setup

Name	2nd		2nd		Dwy 8	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	⇕		⇕⇨		⇨	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 8	
Base Volume Input [veh/h]	0	231	305	33	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	231	305	33	0	19
Peak Hour Factor	0.9200	0.9800	0.9800	0.9800	0.9200	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	59	78	8	0	5
Total Analysis Volume [veh/h]	0	236	311	34	0	19
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results




V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.38
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.73
d_A, Approach Delay [s/veh]	0.00		0.00		9.38	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.30					
Intersection LOS	A					

FUTURE YEAR CONDITIONS

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.511

Intersection Setup

Name	Northbound			I-15 SB Ramp			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	240	0	177	0	1269	289	0	1111	599
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	240	0	177	0	1269	289	0	1111	599
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	1.0000	0.9710	1.0000	0.9710	0.9710	1.0000	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	62	0	46	0	327	74	0	286	154
Total Analysis Volume [veh/h]	0	0	0	247	0	182	0	1307	298	0	1144	617
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0	
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0	
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0	
Delayed Vehicle Green [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	
Rest In Walk				No				No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	
Minimum Recall				No				No			No		
Maximum Recall				No				No			No		
Pedestrian Recall				No				No			No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		10	10	69	69	69	69
g / C, Green / Cycle		0.11	0.11	0.77	0.77	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate		0.08	0.07	0.29	0.21	0.25	0.43
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1431
c, Capacity [veh/h]		348	283	3530	1102	3530	1102
d1, Uniform Delay [s]		38.48	38.17	3.32	3.00	3.16	4.18
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2.66	2.42	0.30	0.60	0.24	2.06
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.71	0.64	0.37	0.27	0.32	0.56
d, Delay for Lane Group [s/veh]		41.15	40.60	3.62	3.60	3.41	6.23
Lane Group LOS		D	D	A	A	A	A
Critical Lane Group		Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]		2.66	1.94	1.56	1.09	1.30	3.23
50th-Percentile Queue Length [ft/ln]		66.44	48.59	38.97	27.18	32.45	80.77
95th-Percentile Queue Length [veh/ln]		4.78	3.50	2.81	1.96	2.34	5.82
95th-Percentile Queue Length [ft/ln]		119.59	87.47	70.14	48.93	58.41	145.39

Movement, Approach, & Intersection Results

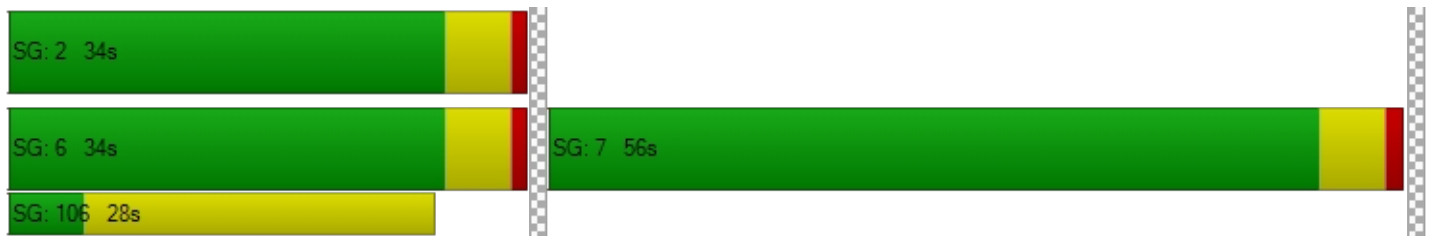
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	41.15	0.00	40.60	0.00	3.62	3.60	0.00	3.41	6.23
Movement LOS				D		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			40.91			3.62			4.40		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	8.20											
Intersection LOS	A											
Intersection V/C	0.511											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.573	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.442	2.286
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	75.1
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.970

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	185	1	654	0	0	0	213	1293	0	0	1511	212
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	185	1	654	0	0	0	213	1293	0	0	1511	212
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	0	166	0	0	0	54	329	0	0	385	53
Total Analysis Volume [veh/h]	188	1	666	0	0	0	217	1317	0	0	1539	212
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	59	59	0	0	0	0	22	71	0	0	49	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	130	130		130	130	130	130
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	54	54		17	66	44	44
g / C, Green / Cycle	0.41	0.41		0.13	0.51	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.12	0.47		0.14	0.29	0.36	0.37
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1582
c, Capacity [veh/h]	661	590		206	2321	1080	533
d1, Uniform Delay [s]	25.46	38.20		56.64	22.23	43.09	43.09
k, delay calibration	0.11	0.50		0.13	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	78.12		47.00	1.01	52.07	67.49
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	1.13		1.05	0.57	1.08	1.10
d, Delay for Lane Group [s/veh]	25.69	116.32		103.64	23.24	95.17	110.59
Lane Group LOS	C	F		F	C	F	F
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.87	30.72		9.34	9.15	24.60	26.56
50th-Percentile Queue Length [ft/ln]	96.81	768.09		233.48	228.82	614.95	664.12
95th-Percentile Queue Length [veh/ln]	6.97	43.35		14.68	14.11	34.47	37.19
95th-Percentile Queue Length [ft/ln]	174.26	1083.74		366.90	352.86	861.73	929.74

Movement, Approach, & Intersection Results

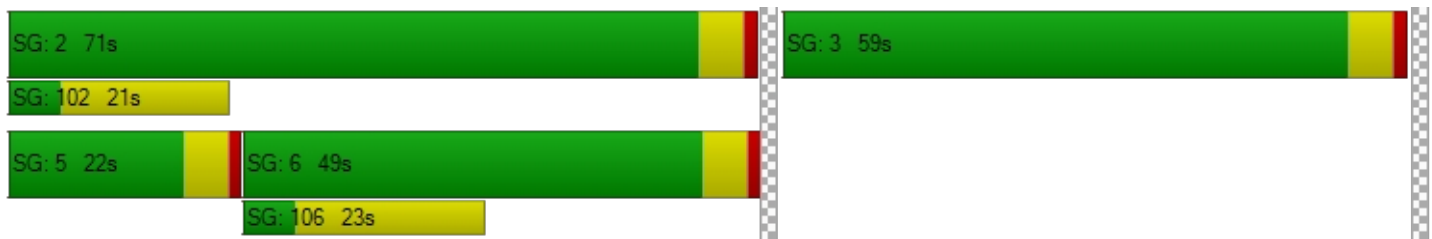
d_M, Delay for Movement [s/veh]	25.69	25.69	116.32	0.00	0.00	0.00	103.64	23.24	0.00	0.00	98.89	110.59
Movement LOS	C	C	F				F	C			F	F
d_A, Approach Delay [s/veh]	96.29			0.00			34.62			100.31		
Approach LOS	F			A			C			F		
d_I, Intersection Delay [s/veh]	75.14											
Intersection LOS	E											
Intersection V/C	0.970											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.31	56.31	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.330	2.013	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	826	0	1011	672
d_b, Bicycle Delay [s]	22.39	65.00	15.90	28.64
I_b,int, Bicycle LOS Score for Intersection	2.970	4.132	2.403	2.523
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	36.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.740

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	92	244	105	135	168	74	63	1789	71	73	1540	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	244	105	135	168	74	63	1789	71	73	1540	58
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	65	28	36	44	20	17	473	19	19	407	15
Total Analysis Volume [veh/h]	97	258	111	143	178	78	67	1893	75	77	1630	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	32	0	18	41	0	27	47	0	13	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	26	26	29	27	27	6	50	50	7	50	50
g / C, Green / Cycle	0.24	0.24	0.26	0.25	0.25	0.05	0.45	0.45	0.06	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.08	0.23	0.18	0.11	0.05	0.04	0.41	0.05	0.05	0.36	0.04
s, saturation flow rate [veh/h]	1236	1598	790	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	295	382	244	416	354	84	2064	644	95	2096	654
d1, Uniform Delay [s]	34.36	41.41	42.61	34.87	32.98	51.53	28.32	17.55	51.11	25.16	16.93
k, delay calibration	0.11	0.22	0.18	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.64	23.58	3.69	0.70	0.31	15.32	7.96	0.37	14.58	2.92	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.97	0.59	0.43	0.22	0.79	0.92	0.12	0.81	0.78	0.09
d, Delay for Lane Group [s/veh]	35.00	64.99	46.30	35.56	33.29	66.84	36.29	17.92	65.69	28.08	17.22
Lane Group LOS	D	E	D	D	C	E	D	B	E	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.09	11.95	3.27	4.00	1.65	2.12	15.50	1.10	2.40	11.35	0.87
50th-Percentile Queue Length [ft/ln]	52.13	298.69	81.65	99.97	41.36	52.95	387.50	27.38	60.11	283.82	21.66
95th-Percentile Queue Length [veh/ln]	3.75	17.62	5.88	7.20	2.98	3.81	21.96	1.97	4.33	16.88	1.56
95th-Percentile Queue Length [ft/ln]	93.84	440.41	146.97	179.94	74.45	95.31	548.92	49.28	108.20	421.97	39.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.00	64.99	64.99	46.30	35.56	33.29	66.84	36.29	17.92	65.69	28.08	17.22
Movement LOS	D	E	E	D	D	C	E	D	B	E	C	B
d_A, Approach Delay [s/veh]	58.75			38.97			36.62			29.34		
Approach LOS	E			D			D			C		
d_I, Intersection Delay [s/veh]	36.27											
Intersection LOS	D											
Intersection V/C	0.740											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	46.37	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.433	2.515	3.540	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	478	642	751	496
d_b, Bicycle Delay [s]	31.84	25.36	21.45	31.09
I_b,int, Bicycle LOS Score for Intersection	2.329	2.218	2.679	2.532
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 551.2
 Level Of Service: F
 Volume to Capacity (v/c): 1.150

Intersection Setup

Name	3rd Ave		Bear Valley		Bear Valley	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	300.00	200.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	3rd Ave		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	20	67	1973	32	31	1642
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	67	1973	32	31	1642
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	18	536	9	8	446
Total Analysis Volume [veh/h]	22	73	2145	35	34	1785
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.15	0.39	0.02	0.00	0.34	0.02
d_M, Delay for Movement [s/veh]	551.20	382.43	0.00	0.00	57.58	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	8.41	8.41	0.00	0.00	1.31	0.00
95th-Percentile Queue Length [ft/ln]	210.37	210.37	0.00	0.00	32.81	0.00
d_A, Approach Delay [s/veh]	421.51		0.00		1.08	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	10.26					
Intersection LOS	F					

**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.537

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← → →			← → →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	175.00	100.00	100.00	250.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
	12	33	15	60	23	106	122	1910	9	7	1522	73
Base Volume Input [veh/h]	12	33	15	60	23	106	122	1910	9	7	1522	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	33	15	60	23	106	122	1910	9	7	1522	73
Peak Hour Factor	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	9	4	16	6	29	33	521	2	2	415	20
Total Analysis Volume [veh/h]	13	36	16	65	25	116	133	2083	10	8	1660	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	11	55	55	17	44	0	11	38	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No		No	No	No	No	No		No	No	
Maximum Recall		No		No	No	No	No	No		No	No	
Pedestrian Recall		No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	7	5	18	34	11	74	74	1	64	64
g / C, Green / Cycle	0.06	0.05	0.16	0.31	0.10	0.67	0.67	0.01	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.05	0.04	0.01	0.08	0.08	0.43	0.43	0.00	0.36	0.06
s, saturation flow rate [veh/h]	1253	1603	1683	1431	1603	3204	1679	1603	4584	1431
c, Capacity [veh/h]	116	78	272	446	158	2156	1129	17	2679	836
d1, Uniform Delay [s]	51.23	51.92	39.27	28.35	48.75	10.32	10.32	54.16	14.90	10.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.20	19.88	0.14	0.31	11.23	1.45	2.76	19.82	1.09	0.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.83	0.09	0.26	0.84	0.64	0.64	0.48	0.62	0.10
d, Delay for Lane Group [s/veh]	55.43	71.80	39.42	28.65	59.98	11.77	13.08	73.98	15.99	10.29
Lane Group LOS	E	E	D	C	E	B	B	E	B	B
Critical Lane Group	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.86	2.16	0.57	2.24	3.94	7.91	8.70	0.30	8.01	0.81
50th-Percentile Queue Length [ft/ln]	46.56	53.98	14.26	56.03	98.49	197.63	217.54	7.61	200.15	20.22
95th-Percentile Queue Length [veh/ln]	3.35	3.89	1.03	4.03	7.09	12.52	13.54	0.55	12.65	1.46
95th-Percentile Queue Length [ft/ln]	83.81	97.16	25.67	100.86	177.28	312.91	338.48	13.71	316.16	36.39

Movement, Approach, & Intersection Results

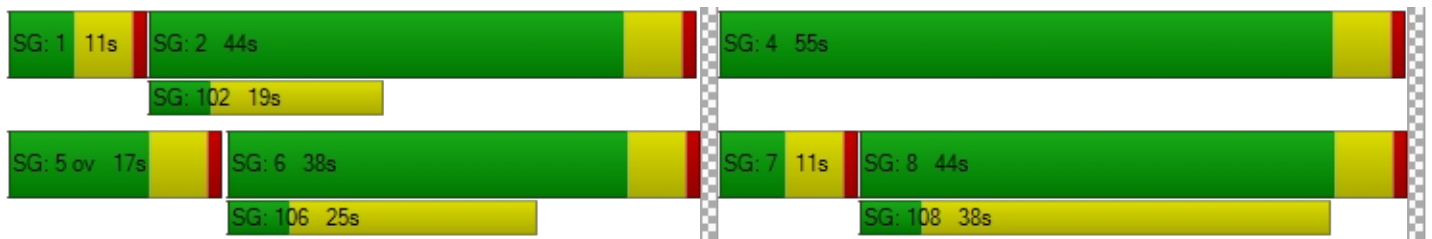
d_M, Delay for Movement [s/veh]	55.43	55.43	55.43	71.80	39.42	28.65	59.98	12.21	13.08	73.98	15.99	10.29
Movement LOS	E	E	E	E	D	C	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	55.43			43.57			15.07			15.99		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	17.45											
Intersection LOS	B											
Intersection V/C	0.537											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	46.37
I_p,int, Pedestrian LOS Score for Intersection	1.805	2.444	0.000	3.531
Crosswalk LOS	A	B	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	896	696	587
d_b, Bicycle Delay [s]	23.37	16.75	23.37	27.44
I_b,int, Bicycle LOS Score for Intersection	1.667	1.900	2.784	2.521
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	187.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.231

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	14	6	11	115	7	1231	536	2539	28	15	2178	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	6	11	115	7	1231	536	2539	28	15	2178	43
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	3	33	2	349	152	720	8	4	617	12
Total Analysis Volume [veh/h]	16	7	12	130	8	1396	608	2879	32	17	2469	49
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	14	68	0	11	65	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.05	0.14	0.55	0.38	0.60	0.60	0.01	0.52	0.52
s, saturation flow rate [veh/h]	716	978	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	252	343	1561	454	1753	916	31	908	472
d1, Uniform Delay [s]	28.88	32.57	17.36	37.93	23.96	23.96	51.41	37.91	37.91
k, delay calibration	0.11	0.11	0.40	0.50	0.46	0.50	0.11	0.36	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	0.76	6.88	167.14	49.25	59.06	13.80	372.21	381.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.40	0.89	1.34	1.09	1.09	0.54	1.82	1.83
d, Delay for Lane Group [s/veh]	29.13	33.33	24.24	205.07	73.22	83.02	65.21	410.13	419.65
Lane Group LOS	C	C	C	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.67	3.08	14.55	32.16	30.84	34.71	0.55	58.06	61.63
50th-Percentile Queue Length [ft/ln]	16.71	77.09	363.75	803.98	771.09	867.78	13.86	1451.52	1540.84
95th-Percentile Queue Length [veh/ln]	1.20	5.55	20.81	48.52	42.73	47.69	1.00	91.42	96.75
95th-Percentile Queue Length [ft/ln]	30.09	138.76	520.14	1213.10	1068.20	1192.35	24.95	2285.38	2418.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.13	29.13	29.13	33.33	33.33	24.24	205.07	76.52	83.02	65.21	413.27	419.65
Movement LOS	C	C	C	C	C	C	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	29.13			25.06			98.79			411.06		
Approach LOS	C			C			F			F		
d_I, Intersection Delay [s/veh]	187.48											
Intersection LOS	F											
Intersection V/C	1.231											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	127			127			1393			1327		
d_b, Bicycle Delay [s]	39.48			39.48			4.14			5.10		
I_b,int, Bicycle LOS Score for Intersection	1.617			4.091			3.495			2.954		
Bicycle LOS	A			D			C			C		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.523

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	188	809	52	74	776	115	34	74	79	46	158	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	809	52	74	776	115	34	74	79	46	158	123
Peak Hour Factor	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	223	14	20	214	32	9	20	22	13	44	34
Total Analysis Volume [veh/h]	208	894	57	82	857	127	38	82	87	51	175	136
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	17	31	0	14	28	0	13	34	0	11	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	14	48	48	6	40	40	3	8	8	7	12	12
g / C, Green / Cycle	0.15	0.54	0.54	0.06	0.45	0.45	0.03	0.08	0.08	0.08	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.13	0.28	0.04	0.05	0.27	0.09	0.02	0.05	0.06	0.03	0.10	0.10
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1448
c, Capacity [veh/h]	244	1722	769	102	1438	642	55	142	121	126	217	187
d1, Uniform Delay [s]	37.16	13.36	10.03	41.58	18.67	15.01	43.00	39.67	40.18	39.45	37.80	38.04
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.12	1.12	0.19	13.40	0.40	0.15	14.41	3.66	7.81	2.06	5.13	7.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.85	0.52	0.07	0.80	0.60	0.20	0.69	0.58	0.72	0.40	0.75	0.79
d, Delay for Lane Group [s/veh]	45.27	14.48	10.22	54.98	19.07	15.16	57.41	43.33	47.99	41.51	42.93	45.43
Lane Group LOS	D	B	B	D	B	B	E	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.87	5.51	0.54	2.10	6.05	1.45	1.03	1.83	2.07	1.10	3.59	3.39
50th-Percentile Queue Length [ft/ln]	121.83	137.66	13.54	52.39	151.32	36.25	25.75	45.76	51.84	27.45	89.78	84.78
95th-Percentile Queue Length [veh/ln]	8.49	9.35	0.97	3.77	10.09	2.61	1.85	3.29	3.73	1.98	6.46	6.10
95th-Percentile Queue Length [ft/ln]	212.34	233.87	24.37	94.30	252.19	65.24	46.34	82.37	93.32	49.41	161.61	152.61

Movement, Approach, & Intersection Results

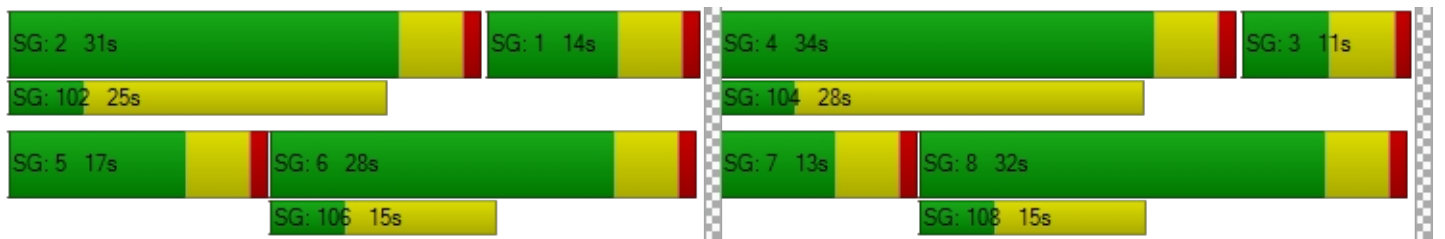
d_M, Delay for Movement [s/veh]	45.27	14.48	10.22	54.98	19.07	15.16	57.41	43.33	47.99	41.51	43.10	45.43
Movement LOS	D	B	B	D	B	B	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	19.80			21.37			47.87			43.75		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	25.58											
Intersection LOS	C											
Intersection V/C	0.523											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.863	2.975	2.488	2.472
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	504	638	593
d_b, Bicycle Delay [s]	22.97	25.16	20.88	22.26
I_b,int, Bicycle LOS Score for Intersection	2.516	2.439	1.730	1.858
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.246

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	7	83	123	106	119	2	0	44	22	99	14	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	83	123	106	119	2	0	44	22	99	14	25
Peak Hour Factor	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	26	38	33	37	1	0	14	7	30	4	8
Total Analysis Volume [veh/h]	9	102	151	131	147	2	0	54	27	122	17	31
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	549	595	673	557	605	557	578	533	575	646
Degree of Utilization, x	0.02	0.17	0.22	0.24	0.25	0.00	0.14	0.23	0.03	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.05	0.62	0.86	0.91	0.96	0.00	0.49	0.88	0.09	0.15
95th-Percentile Queue Length [ft]	1.25	15.38	21.44	22.69	24.12	0.00	12.14	21.92	2.28	3.77
Approach Delay [s/veh]	9.75			10.85			9.95		10.70	
Approach LOS	A			B			A		B	
Intersection Delay [s/veh]	10.36									
Intersection LOS	B									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.9
 Level Of Service: B
 Volume to Capacity (v/c): 0.718

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	67	25	345	186	30	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	25	345	186	30	170
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	7	97	52	8	48
Total Analysis Volume [veh/h]	76	28	389	210	34	192
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	628	834	731
Degree of Utilization, x	0.17	0.72	0.31

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.59	6.30	1.32
95th-Percentile Queue Length [ft]	14.77	157.56	32.88
Approach Delay [s/veh]	9.87	17.52	10.11
Approach LOS	A	C	B
Intersection Delay [s/veh]	14.86		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 19.3
 Level Of Service: C
 Volume to Capacity (v/c): 0.785

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	10	32	6	356	25	27	18	165	11	6	115	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	32	6	356	25	27	18	165	11	6	115	107
Peak Hour Factor	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	10	2	106	7	8	5	49	3	2	34	32
Total Analysis Volume [veh/h]	12	38	7	423	30	32	21	196	13	7	137	127
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	509	577	618	587	620
Degree of Utilization, x	0.10	0.01	0.78	0.39	0.44

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.33	0.04	7.53	1.86	2.22
95th-Percentile Queue Length [ft]	8.13	0.92	188.18	46.39	55.46
Approach Delay [s/veh]	10.36		26.74	13.03	13.25
Approach LOS	B		D	B	B
Intersection Delay [s/veh]	19.31				
Intersection LOS	C				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.020

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	47	96	27	6	60	7	10	43	15	10	43	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	96	27	6	60	7	10	43	15	10	43	6
Peak Hour Factor	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	27	8	2	17	2	3	12	4	3	12	2
Total Analysis Volume [veh/h]	53	108	31	7	68	8	11	49	17	11	49	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.02	0.02	0.09	0.01
d_M, Delay for Movement [s/veh]	7.45	0.00	0.00	7.50	0.00	0.00	12.39	12.21	9.46	12.47	12.08	9.66
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.11	0.01	0.01	0.01	0.42	0.42	0.42	0.38	0.38	0.38
95th-Percentile Queue Length [ft/ln]	2.70	2.70	2.70	0.37	0.37	0.37	10.57	10.57	10.57	9.57	9.57	9.57
d_A, Approach Delay [s/veh]	2.06			0.63			11.63			11.89		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.11											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.038

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	1	22	2	10	9	16	32	48	1	2	44	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	22	2	10	9	16	32	48	1	2	44	15
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	1	3	3	5	9	14	0	1	13	4
Total Analysis Volume [veh/h]	1	26	2	12	10	19	37	56	1	2	51	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.00	0.02	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.28	10.56	8.79	10.29	10.51	8.81	7.41	0.00	0.00	7.33	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.13	0.16	0.16	0.16	0.07	0.07	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.27	3.27	3.27	3.97	3.97	3.97	1.85	1.85	1.85	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.43			9.66			2.92			0.21		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.22											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB**

Control Type:	Signalized	Delay (sec / veh):	14.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.625

Intersection Setup

Name	I-15 SB Ramp			Bear Valley			Bear Valley					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	346	0	482	0	1890	335	0	1908	432
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	346	0	482	0	1890	335	0	1908	432
Peak Hour Factor	0.9710	0.9710	0.9710	0.9640	1.0000	0.9640	1.0000	0.9640	0.9640	1.0000	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	90	0	125	0	490	87	0	495	112
Total Analysis Volume [veh/h]	0	0	0	359	0	500	0	1961	348	0	1979	448
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		21	21	58	58	58	58
g / C, Green / Cycle		0.24	0.24	0.64	0.64	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.12	0.20	0.43	0.24	0.40	0.41
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1489
c, Capacity [veh/h]		738	600	2957	923	2957	960
d1, Uniform Delay [s]		29.56	32.59	9.89	7.48	9.39	9.55
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.50	3.11	1.19	1.18	0.97	3.15
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.49	0.83	0.66	0.38	0.62	0.63
d, Delay for Lane Group [s/veh]		30.06	35.70	11.08	8.66	10.36	12.71
Lane Group LOS		C	D	B	A	B	B
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		3.24	5.15	6.65	2.85	5.84	6.51
50th-Percentile Queue Length [ft/ln]		80.97	128.83	166.26	71.20	145.94	162.80
95th-Percentile Queue Length [veh/ln]		5.83	8.88	10.88	5.13	9.80	10.70
95th-Percentile Queue Length [ft/ln]		145.75	221.91	272.00	128.15	245.00	267.43

Movement, Approach, & Intersection Results

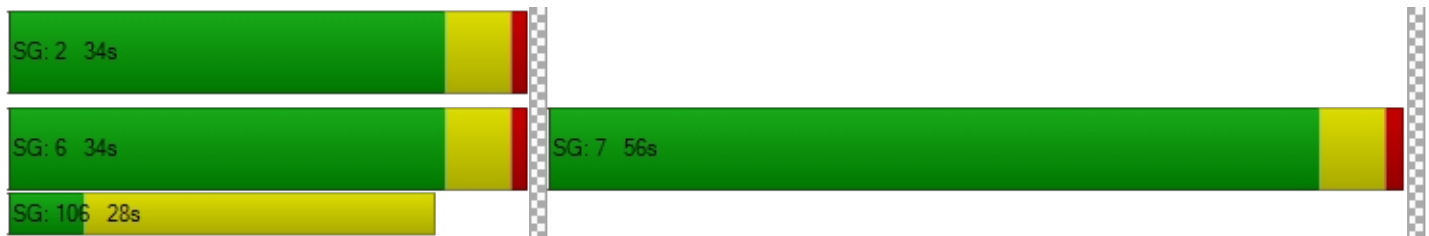
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	30.06	0.00	35.70	0.00	11.08	8.66	0.00	10.55	12.71
Movement LOS				C		D		B	A		B	B
d_A, Approach Delay [s/veh]	0.00			33.34			10.71			10.94		
Approach LOS	A			C			B			B		
d_I, Intersection Delay [s/veh]	14.29											
Intersection LOS	B											
Intersection V/C	0.625											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.641	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.830	2.561
Bicycle LOS	D	A	C	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	139.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.207

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	467	2	760	0	0	0	334	1864	0	0	1928	200
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	467	2	760	0	0	0	334	1864	0	0	1928	200
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	119	1	194	0	0	0	85	476	0	0	492	51
Total Analysis Volume [veh/h]	477	2	776	0	0	0	341	1904	0	0	1969	204
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	60	60	0	0	0	0	28	80	0	0	52	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	140	140		140	140	140	140
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	55	55		23	75	47	47
g / C, Green / Cycle	0.39	0.39		0.16	0.53	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.30	0.54		0.21	0.42	0.45	0.45
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1603
c, Capacity [veh/h]	625	558		260	2450	1071	536
d1, Uniform Delay [s]	37.16	42.70		58.63	25.94	46.58	46.58
k, delay calibration	0.28	0.50		0.42	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.07	187.02		161.25	2.50	164.65	170.04
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	1.39		1.31	0.78	1.35	1.35
d, Delay for Lane Group [s/veh]	42.23	229.72		219.88	28.44	211.24	216.62
Lane Group LOS	D	F		F	C	F	F
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	14.80	47.59		20.72	16.61	42.66	43.49
50th-Percentile Queue Length [ft/ln]	369.91	1189.66		518.08	415.31	1066.47	1087.23
95th-Percentile Queue Length [veh/ln]	21.11	71.70		31.75	23.30	63.52	64.63
95th-Percentile Queue Length [ft/ln]	527.63	1792.47		793.74	582.42	1587.88	1615.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.23	42.23	229.72	0.00	0.00	0.00	219.88	28.44	0.00	0.00	212.66	216.62
Movement LOS	D	D	F				F	C			F	F
d_A, Approach Delay [s/veh]	158.16			0.00			57.52			213.03		
Approach LOS	F			A			E			F		
d_I, Intersection Delay [s/veh]	139.35											
Intersection LOS	F											
Intersection V/C	1.207											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	61.29	61.29	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.506	2.093	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	781	0	1067	667
d_b, Bicycle Delay [s]	25.99	70.00	15.23	31.09
I_b,int, Bicycle LOS Score for Intersection	3.630	4.132	2.794	2.755
Bicycle LOS	D	D	C	C

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	59.1
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.851

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	129	302	116	174	363	113	115	1966	140	134	1833	149
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	302	116	174	363	113	115	1966	140	134	1833	149
Peak Hour Factor	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	77	29	44	92	29	29	499	36	34	466	38
Total Analysis Volume [veh/h]	131	307	118	177	369	115	117	1998	142	136	1863	151
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	28	0	22	41	0	12	37	0	13	38	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	22	22	27	25	25	6	42	42	7	43	43
g / C, Green / Cycle	0.22	0.22	0.27	0.25	0.25	0.06	0.42	0.42	0.07	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.27	0.26	0.19	0.22	0.08	0.07	0.44	0.10	0.08	0.41	0.11
s, saturation flow rate [veh/h]	491	1604	918	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	214	358	287	423	360	101	1907	595	117	1953	609
d1, Uniform Delay [s]	34.23	38.87	37.01	35.89	30.47	46.86	29.21	18.94	46.36	27.77	18.43
k, delay calibration	0.37	0.25	0.16	0.15	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.39	98.06	3.28	7.83	0.51	91.50	34.40	0.95	90.73	12.07	0.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.61	1.19	0.62	0.87	0.32	1.15	1.05	0.24	1.16	0.95	0.25
d, Delay for Lane Group [s/veh]	43.62	136.92	40.28	43.72	30.97	138.36	63.61	19.89	137.09	39.84	19.40
Lane Group LOS	D	F	D	D	C	F	F	B	F	D	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.13	18.04	3.64	9.18	2.24	4.98	19.60	2.12	5.74	14.89	2.22
50th-Percentile Queue Length [ft/ln]	78.20	451.06	91.12	229.57	55.91	124.49	490.03	52.89	143.41	372.34	55.39
95th-Percentile Queue Length [veh/ln]	5.63	27.34	6.56	14.15	4.03	8.96	27.76	3.81	10.11	21.22	3.99
95th-Percentile Queue Length [ft/ln]	140.76	683.41	164.02	353.81	100.65	224.09	694.11	95.20	252.75	530.57	99.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.62	136.92	136.92	40.28	43.72	30.97	138.36	63.61	19.89	137.09	39.84	19.40
Movement LOS	D	F	F	D	D	C	F	F	B	F	D	B
d_A, Approach Delay [s/veh]	114.94			40.58			64.74			44.56		
Approach LOS	F			D			E			D		
d_I, Intersection Delay [s/veh]	59.15											
Intersection LOS	E											
Intersection V/C	0.851											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.578	2.628	3.648	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	446	706	626	646
d_b, Bicycle Delay [s]	30.19	20.93	23.60	22.92
I_b,int, Bicycle LOS Score for Intersection	2.477	2.650	2.801	2.742
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Two-way stop	Delay (sec / veh):	2,208.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.734

Intersection Setup

Name	3rd Ave		Bear Valley		Bear Valley	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	300.00	200.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	3rd Ave		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	22	80	2201	76	54	2103
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	80	2201	76	54	2103
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	21	567	20	14	542
Total Analysis Volume [veh/h]	23	82	2269	78	56	2168
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	3.73	0.49	0.02	0.00	0.67	0.02
d_M, Delay for Movement [s/veh]	2208.66	1645.49	0.00	0.00	111.11	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	13.04	13.04	0.00	0.00	3.19	0.00
95th-Percentile Queue Length [ft/ln]	325.90	325.90	0.00	0.00	79.83	0.00
d_A, Approach Delay [s/veh]	1768.85		0.00		2.80	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	41.05					
Intersection LOS	F					

**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	26.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← ↑ ↓ →			← ↑ ↓ →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	175.00	100.00	100.00	250.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
	30	31	36	102	46	179	128	2078	26	28	1958	81
Base Volume Input [veh/h]	30	31	36	102	46	179	128	2078	26	28	1958	81
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	31	36	102	46	179	128	2078	26	28	1958	81
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	8	9	27	12	47	33	542	7	7	511	21
Total Analysis Volume [veh/h]	31	32	38	106	48	187	134	2169	27	29	2044	85
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	14	58	58	16	37	0	15	36	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No		No	No	No	No	No		No	No	
Maximum Recall		No		No	No	No	No	No		No	No	
Pedestrian Recall		No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	11	8	25	41	10	65	65	3	58	58
g / C, Green / Cycle	0.10	0.08	0.23	0.37	0.09	0.59	0.59	0.03	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.08	0.07	0.03	0.13	0.08	0.45	0.45	0.02	0.45	0.06
s, saturation flow rate [veh/h]	1212	1603	1683	1431	1603	3204	1672	1603	4584	1431
c, Capacity [veh/h]	163	121	381	533	151	1893	988	44	2403	750
d1, Uniform Delay [s]	48.98	50.33	33.88	24.94	49.30	16.75	16.78	53.03	22.49	13.25
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.83	16.92	0.15	0.39	15.84	2.96	5.58	15.90	4.03	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.87	0.13	0.35	0.89	0.76	0.76	0.66	0.85	0.11
d, Delay for Lane Group [s/veh]	52.81	67.25	34.03	25.34	65.14	19.71	22.37	68.94	26.52	13.56
Lane Group LOS	D	E	C	C	E	B	C	E	C	B
Critical Lane Group	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.83	3.37	1.01	3.42	4.16	12.20	13.51	0.96	14.13	1.04
50th-Percentile Queue Length [ft/ln]	70.66	84.33	25.17	85.42	103.95	305.12	337.73	23.98	353.16	25.91
95th-Percentile Queue Length [veh/ln]	5.09	6.07	1.81	6.15	7.48	17.93	19.54	1.73	20.29	1.87
95th-Percentile Queue Length [ft/ln]	127.19	151.79	45.31	153.76	187.10	448.35	488.42	43.17	507.25	46.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.81	52.81	52.81	67.25	34.03	25.34	65.14	20.60	22.37	68.94	26.52	13.56
Movement LOS	D	D	D	E	C	C	E	C	C	E	C	B
d_A, Approach Delay [s/veh]	52.81			39.59			23.18			26.58		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	26.41											
Intersection LOS	C											
Intersection V/C	0.679											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	46.37
I_p,int, Pedestrian LOS Score for Intersection	1.876	2.484	0.000	3.645
Crosswalk LOS	A	B	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	951	569	551
d_b, Bicycle Delay [s]	23.37	15.13	28.15	28.87
I_b,int, Bicycle LOS Score for Intersection	1.726	2.122	2.841	2.747
Bicycle LOS	A	B	C	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	224.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.301

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	26	6	11	106	1	877	808	3219	11	4	2285	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	6	11	106	1	877	808	3219	11	4	2285	48
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	2	3	28	0	233	215	855	3	1	607	13
Total Analysis Volume [veh/h]	28	6	12	113	1	932	859	3421	12	4	2428	51
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	68	68	0	11	11	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	103	103	103	103	103	103	103	103	103
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	27	27	63	30	59	59	1	30	30
g / C, Green / Cycle	0.26	0.26	0.61	0.29	0.58	0.58	0.01	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.37	0.54	0.70	0.70	0.00	0.51	0.51
s, saturation flow rate [veh/h]	858	1136	2532	1603	3204	1680	1603	3204	1665
c, Capacity [veh/h]	283	370	1536	466	1843	966	10	931	484
d1, Uniform Delay [s]	32.59	31.31	12.62	36.57	21.91	21.91	51.04	36.59	36.59
k, delay calibration	0.11	0.11	0.16	0.50	0.50	0.50	0.11	0.33	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.27	0.47	0.59	387.34	104.77	109.96	23.00	340.08	349.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.31	0.61	1.84	1.22	1.22	0.39	1.75	1.76
d, Delay for Lane Group [s/veh]	32.86	31.78	13.21	423.91	126.68	131.87	74.05	376.67	386.18
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.02	2.38	6.31	61.19	45.49	49.09	0.16	54.98	58.43
50th-Percentile Queue Length [ft/ln]	25.50	59.39	157.78	1529.83	1137.15	1227.17	4.12	1374.51	1460.66
95th-Percentile Queue Length [veh/ln]	1.84	4.28	10.43	96.42	65.71	70.54	0.30	86.32	91.45
95th-Percentile Queue Length [ft/ln]	45.89	106.90	260.78	2410.53	1642.73	1763.56	7.42	2158.04	2286.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.86	32.86	32.86	31.78	31.78	13.21	423.91	128.46	131.87	74.05	379.80	386.18
Movement LOS	C	C	C	C	C	B	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	32.86			15.23			187.60			379.44		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	224.33											
Intersection LOS	F											
Intersection V/C	1.301											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	127
d_b, Bicycle Delay [s]	39.48	39.48	4.14	39.48
I_b,int, Bicycle LOS Score for Intersection	1.636	3.286	3.920	2.925
Bicycle LOS	A	C	D	C

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	30.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	175	1185	51	110	827	74	83	124	170	62	87	143
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	175	1185	51	110	827	74	83	124	170	62	87	143
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	318	14	30	222	20	22	33	46	17	23	38
Total Analysis Volume [veh/h]	188	1271	55	118	887	79	89	133	182	67	93	153
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	31	0	13	28	0	18	34	0	12	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	13	43	43	8	38	38	6	14	14	5	12	12
g / C, Green / Cycle	0.14	0.47	0.47	0.09	0.42	0.42	0.07	0.15	0.15	0.05	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.12	0.40	0.04	0.07	0.28	0.06	0.06	0.08	0.13	0.04	0.06	0.11
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1431
c, Capacity [veh/h]	224	1516	677	137	1343	600	113	258	219	84	228	194
d1, Uniform Delay [s]	37.76	20.72	13.00	40.62	21.00	16.08	41.19	35.05	36.98	42.16	35.61	37.67
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.23	5.72	0.24	14.16	0.56	0.10	11.54	1.60	7.88	15.25	1.17	6.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.84	0.84	0.08	0.86	0.66	0.13	0.79	0.52	0.83	0.79	0.41	0.79
d, Delay for Lane Group [s/veh]	45.98	26.44	13.24	54.78	21.56	16.17	52.73	36.64	44.86	57.41	36.77	44.66
Lane Group LOS	D	C	B	D	C	B	D	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.43	11.80	0.62	3.00	6.82	0.93	2.24	2.69	4.20	1.76	1.85	3.47
50th-Percentile Queue Length [ft/ln]	110.78	295.01	15.49	74.95	170.53	23.31	55.94	67.25	104.98	44.11	46.28	86.73
95th-Percentile Queue Length [veh/ln]	7.88	17.43	1.12	5.40	11.10	1.68	4.03	4.84	7.56	3.18	3.33	6.24
95th-Percentile Queue Length [ft/ln]	197.09	435.85	27.89	134.91	277.61	41.95	100.69	121.06	188.97	79.41	83.30	156.12

Movement, Approach, & Intersection Results

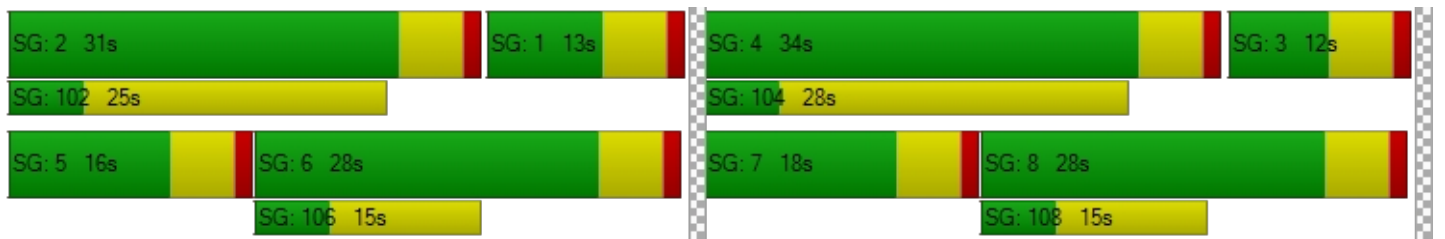
d_M, Delay for Movement [s/veh]	45.98	26.44	13.24	54.78	21.56	16.17	52.73	36.64	44.86	57.41	36.77	44.66
Movement LOS	D	C	B	D	C	B	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	28.38			24.79			43.89			45.05		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	30.67											
Intersection LOS	C											
Intersection V/C	0.639											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.957	3.087	2.500	2.482
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	504	638	504
d_b, Bicycle Delay [s]	22.97	25.16	20.88	25.16
I_b,int, Bicycle LOS Score for Intersection	2.809	2.454	1.893	1.818
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.5
 Level Of Service: B
 Volume to Capacity (v/c): 0.320

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	27	117	127	52	95	1	0	16	17	145	18	105
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	117	127	52	95	1	0	16	17	145	18	105
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	35	38	16	29	0	0	5	5	44	5	32
Total Analysis Volume [veh/h]	33	142	154	63	115	1	0	19	21	176	22	127
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	547	592	668	529	571	549	581	551	596	673
Degree of Utilization, x	0.06	0.24	0.23	0.12	0.20	0.00	0.07	0.32	0.04	0.19

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.19	0.93	0.89	0.40	0.75	0.00	0.22	1.37	0.11	0.69
95th-Percentile Queue Length [ft]	4.80	23.29	22.14	10.08	18.87	0.00	5.52	34.24	2.87	17.29
Approach Delay [s/veh]	10.12			10.54			9.35		10.89	
Approach LOS	B			B			A		B	
Intersection Delay [s/veh]	10.46									
Intersection LOS	B									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.532

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↔		↗		↖	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	193	27	185	121	32	211
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	193	27	185	121	32	211
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	8	58	38	10	66
Total Analysis Volume [veh/h]	241	34	231	151	40	264
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	624	718	671
Degree of Utilization, x	0.44	0.53	0.45

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.25	3.17	2.36
95th-Percentile Queue Length [ft]	56.18	79.29	59.02
Approach Delay [s/veh]	13.23	13.57	12.72
Approach LOS	B	B	B
Intersection Delay [s/veh]	13.20		
Intersection LOS	B		

Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave

Control Type: All-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 16.6
Level Of Service: C
Volume to Capacity (v/c): 0.687

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	14	26	4	175	49	58	47	127	9	5	201	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	26	4	175	49	58	47	127	9	5	201	185
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	8	1	52	15	17	14	38	3	1	60	55
Total Analysis Volume [veh/h]	17	31	5	208	58	69	56	151	11	6	239	220
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	489	557	592	599	677
Degree of Utilization, x	0.10	0.01	0.57	0.36	0.69

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.32	0.03	3.53	1.66	5.46
95th-Percentile Queue Length [ft]	8.11	0.68	88.22	41.45	136.39
Approach Delay [s/veh]	10.70		16.73	12.40	19.14
Approach LOS	B		C	B	C
Intersection Delay [s/veh]	16.60				
Intersection LOS	C				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.052

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	57	84	15	10	112	18	14	68	22	23	108	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	84	15	10	112	18	14	68	22	23	108	9
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	22	4	3	30	5	4	18	6	6	29	2
Total Analysis Volume [veh/h]	60	89	16	11	119	19	15	72	23	24	114	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.01	0.00	0.00	0.04	0.14	0.02	0.05	0.22	0.01
d_M, Delay for Movement [s/veh]	7.60	0.00	0.00	7.44	0.00	0.00	15.05	13.41	10.48	15.45	14.46	11.37
Movement LOS	A	A	A	A	A	A	C	B	B	C	B	B
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.13	0.02	0.02	0.02	0.73	0.73	0.73	1.14	1.14	1.14
95th-Percentile Queue Length [ft/ln]	3.24	3.24	3.24	0.56	0.56	0.56	18.16	18.16	18.16	28.41	28.41	28.41
d_A, Approach Delay [s/veh]	2.76			0.55			13.02			14.41		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	7.17											
Intersection LOS	C											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.077

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	0	28	0	21	47	32	23	74	2	2	94	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	28	0	21	47	32	23	74	2	2	94	17
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	7	0	6	12	8	6	19	1	1	25	4
Total Analysis Volume [veh/h]	0	30	0	22	50	34	24	78	2	2	99	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.05	0.00	0.03	0.08	0.04	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.27	10.88	8.94	11.26	11.39	9.65	7.49	0.00	0.00	7.37	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.15	0.51	0.51	0.51	0.05	0.05	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.67	3.67	3.67	12.75	12.75	12.75	1.24	1.24	1.24	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.88			10.81			1.73			0.12		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	4.64											
Intersection LOS	B											

FUTURE YEAR W/ PROJECT CONDITIONS

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.547

Intersection Setup

Name	I-15 SB Ramp			Bear Valley			Bear Valley					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	271	0	177	0	1285	289	0	1129	635
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	271	0	177	0	1285	289	0	1129	635
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	1.0000	0.9710	1.0000	0.9710	0.9710	1.0000	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	0	46	0	331	74	0	291	163
Total Analysis Volume [veh/h]	0	0	0	279	0	182	0	1323	298	0	1163	654
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0	
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0	
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0	
Delayed Vehicle Green [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	
Rest In Walk				No				No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	
Minimum Recall				No				No			No		
Maximum Recall				No				No			No		
Pedestrian Recall				No				No			No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I, Upstream Filtering 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	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		11	11	68	68	68	68
g / C, Green / Cycle		0.12	0.12	0.76	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate		0.09	0.07	0.29	0.21	0.25	0.46
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1431
c, Capacity [veh/h]		382	311	3481	1086	3481	1086
d1, Uniform Delay [s]		37.98	37.26	3.66	3.29	3.49	4.79
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2.70	1.76	0.32	0.63	0.26	2.47
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.73	0.59	0.38	0.27	0.33	0.60
d, Delay for Lane Group [s/veh]		40.69	39.01	3.97	3.91	3.74	7.27
Lane Group LOS		D	D	A	A	A	A
Critical Lane Group		Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]		2.99	1.90	1.76	1.19	1.47	3.96
50th-Percentile Queue Length [ft/ln]		74.77	47.44	43.88	29.81	36.72	98.99
95th-Percentile Queue Length [veh/ln]		5.38	3.42	3.16	2.15	2.64	7.13
95th-Percentile Queue Length [ft/ln]		134.58	85.39	78.99	53.67	66.10	178.18

Movement, Approach, & Intersection Results

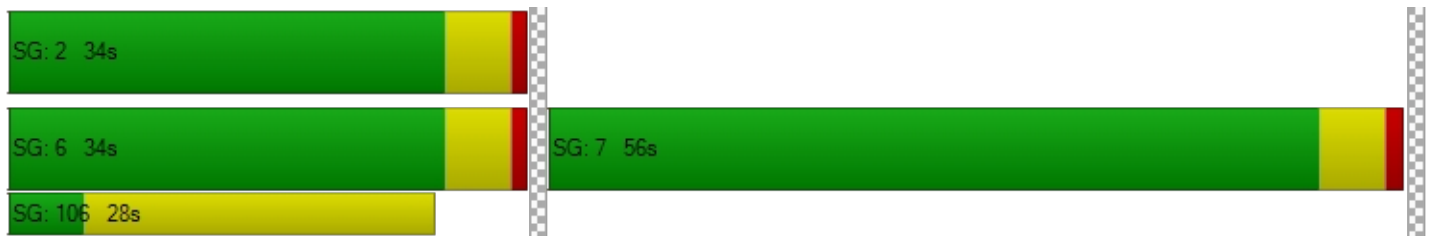
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	40.69	0.00	39.01	0.00	3.97	3.91	0.00	3.74	7.27
Movement LOS				D		D		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			40.03			3.96			5.01		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	8.72											
Intersection LOS	A											
Intersection V/C	0.547											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.591	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.451	2.309
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	81.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.992

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	185	1	654	0	0	0	213	1340	0	0	1565	248
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	185	1	654	0	0	0	213	1340	0	0	1565	248
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	0	166	0	0	0	54	341	0	0	398	62
Total Analysis Volume [veh/h]	188	1	666	0	0	0	217	1365	0	0	1594	248
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	63	63	0	0	0	0	23	77	0	0	54	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	140	140		140	140	140	140
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	58	58		18	72	49	49
g / C, Green / Cycle	0.41	0.41		0.13	0.51	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.12	0.47		0.14	0.30	0.38	0.39
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1571
c, Capacity [veh/h]	659	588		203	2352	1117	548
d1, Uniform Delay [s]	27.50	41.20		61.14	23.65	45.59	45.59
k, delay calibration	0.11	0.50		0.16	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	79.03		56.39	1.05	58.33	76.23
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	1.13		1.07	0.58	1.10	1.12
d, Delay for Lane Group [s/veh]	27.73	120.23		117.53	24.70	103.92	121.83
Lane Group LOS	C	F		F	C	F	F
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.23	32.45		10.28	10.35	27.92	30.10
50th-Percentile Queue Length [ft/ln]	105.74	811.22		257.07	258.72	698.04	752.55
95th-Percentile Queue Length [veh/ln]	7.60	45.58		16.00	15.62	38.99	42.19
95th-Percentile Queue Length [ft/ln]	190.06	1139.54		400.10	390.61	974.63	1054.70

Movement, Approach, & Intersection Results

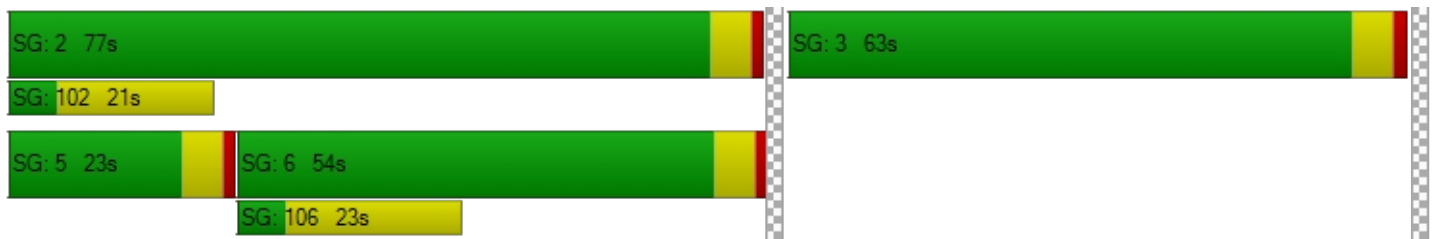
d_M, Delay for Movement [s/veh]	27.73	27.73	120.23	0.00	0.00	0.00	117.53	24.70	0.00	0.00	108.03	121.83
Movement LOS	C	C	F				F	C			F	F
d_A, Approach Delay [s/veh]	99.79			0.00			37.43			109.89		
Approach LOS	F			A			D			F		
d_I, Intersection Delay [s/veh]	81.08											
Intersection LOS	F											
Intersection V/C	0.992											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	61.29	61.29	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.333	2.040	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	824	0	1024	696
d_b, Bicycle Delay [s]	24.19	70.00	16.66	29.77
I_b,int, Bicycle LOS Score for Intersection	2.970	4.132	2.430	2.573
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	39.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.784

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	92	244	111	141	168	74	63	1885	71	80	1651	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	244	111	141	168	74	63	1885	71	80	1651	65
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	65	29	37	44	20	17	499	19	21	437	17
Total Analysis Volume [veh/h]	97	258	117	149	178	78	67	1995	75	85	1747	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	41	0	9	41	0	57	75	0	15	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	35	35	37	35	35	7	70	70	9	71	71
g / C, Green / Cycle	0.25	0.25	0.26	0.25	0.25	0.05	0.50	0.50	0.06	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.08	0.24	0.13	0.11	0.05	0.04	0.44	0.05	0.05	0.38	0.05
s, saturation flow rate [veh/h]	1193	1595	1162	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	274	394	183	423	359	84	2277	711	103	2332	728
d1, Uniform Delay [s]	42.86	51.92	59.39	43.90	41.52	65.59	31.38	18.71	64.72	27.31	17.76
k, delay calibration	0.11	0.37	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.77	29.10	8.45	0.67	0.30	15.47	5.11	0.30	14.89	2.26	0.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.95	0.81	0.42	0.22	0.80	0.88	0.11	0.82	0.75	0.09
d, Delay for Lane Group [s/veh]	43.63	81.02	67.84	44.57	41.82	81.05	36.50	19.01	79.60	29.57	18.02
Lane Group LOS	D	F	E	D	D	F	D	B	E	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.72	15.79	4.59	5.22	2.16	2.67	19.64	1.31	3.35	14.89	1.16
50th-Percentile Queue Length [ft/ln]	67.88	394.87	114.78	130.38	53.97	66.82	491.10	32.68	83.81	372.28	29.05
95th-Percentile Queue Length [veh/ln]	4.89	22.31	8.11	8.96	3.89	4.81	26.91	2.35	6.03	21.22	2.09
95th-Percentile Queue Length [ft/ln]	122.18	557.81	202.63	224.01	97.15	120.28	672.81	58.82	150.86	530.49	52.30

Movement, Approach, & Intersection Results

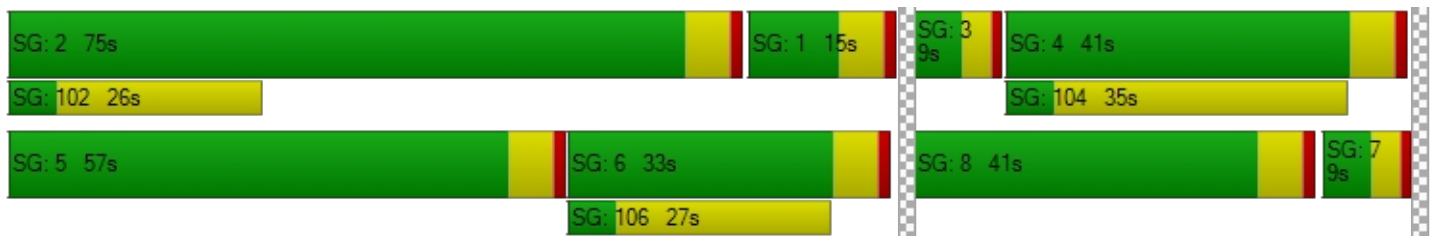
d_M, Delay for Movement [s/veh]	43.63	81.02	81.02	67.84	44.57	41.82	81.05	36.50	19.01	79.60	29.57	18.02
Movement LOS	D	F	F	E	D	D	F	D	B	E	C	B
d_A, Approach Delay [s/veh]	73.34			52.60			37.28			31.39		
Approach LOS	E			D			D			C		
d_I, Intersection Delay [s/veh]	39.73											
Intersection LOS	D											
Intersection V/C	0.784											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	61.29	61.29	61.29	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.450	2.530	3.599	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	504	504	990	390
d_b, Bicycle Delay [s]	39.15	39.15	17.85	45.36
I_b,int, Bicycle LOS Score for Intersection	2.338	2.228	2.735	2.605
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.547

Intersection Setup

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵↵			↵↵↵			↵↵↵↵↵			↵↵↵↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	200.00	200.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	20	16	67	18	18	36	78	2004	32	31	1731	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	16	67	18	18	36	78	2004	32	31	1731	0
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	0.9200	0.9200	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	4	18	5	5	9	20	545	9	8	470	0
Total Analysis Volume [veh/h]	22	16	73	18	18	36	78	2178	35	34	1882	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	13	0	11	13	0	27	84	0	32	89	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	14	0	0	17	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	10	10	10	10	10	10	8	101	101	4	96	96
g / C, Green / Cycle	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.72	0.72	0.03	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.05	0.01	0.01	0.02	0.05	0.48	0.02	0.02	0.41	0.00
s, saturation flow rate [veh/h]	1478	1710	1454	1629	1710	1454	1629	4584	1431	1603	4584	1454
c, Capacity [veh/h]	171	122	104	147	118	100	97	3308	1032	42	3156	1001
d1, Uniform Delay [s]	61.21	60.94	63.57	60.71	61.35	62.25	65.06	10.34	5.57	67.81	11.53	0.00
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	0.34	2.22	33.12	1.70	2.75	9.81	14.48	0.23	0.01	28.97	0.18	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.13	0.13	0.70	0.12	0.15	0.36	0.81	0.66	0.03	0.81	0.60	0.00
d, Delay for Lane Group [s/veh]	61.55	63.16	96.69	62.40	64.10	72.06	79.54	10.57	5.58	96.78	11.71	0.00
Lane Group LOS	E	E	F	E	E	E	E	B	A	F	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.76	0.61	3.51	0.68	0.70	1.50	3.07	9.77	0.26	1.52	8.88	0.00
50th-Percentile Queue Length [ft/ln]	18.94	15.31	87.74	16.91	17.41	37.59	76.87	244.14	6.38	38.07	222.04	0.00
95th-Percentile Queue Length [veh/ln]	1.36	1.10	6.32	1.22	1.25	2.71	5.53	14.89	0.46	2.74	13.77	0.00
95th-Percentile Queue Length [ft/ln]	34.10	27.55	157.94	30.44	31.34	67.66	138.36	372.27	11.49	68.52	344.23	0.00

Movement, Approach, & Intersection Results

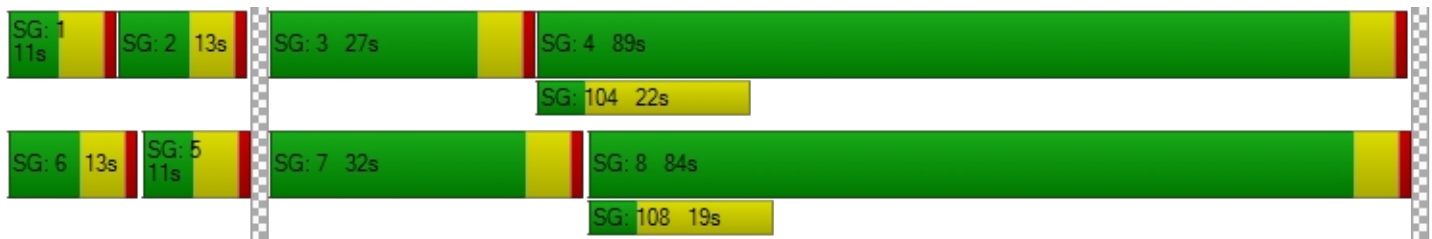
d_M, Delay for Movement [s/veh]	61.55	63.16	96.69	62.40	64.10	72.06	79.54	10.57	5.58	96.78	11.71	0.00
Movement LOS	E	E	F	E	E	E	E	B	A	F	B	A
d_A, Approach Delay [s/veh]	84.89			67.65			12.84			13.22		
Approach LOS	F			E			B			B		
d_I, Intersection Delay [s/veh]	15.73											
Intersection LOS	B											
Intersection V/C	0.547											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	61.29	61.29	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.202	2.355	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	104	104	1119	1190
d_b, Bicycle Delay [s]	62.89	62.89	13.60	11.48
I_b,int, Bicycle LOS Score for Intersection	1.651	1.678	2.820	2.613
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.613

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← →			← →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	150.00	200.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	12	49	15	149	41	106	153	1928	9	7	1584	104
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	49	15	149	41	106	153	1928	9	7	1584	104
Peak Hour Factor	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	13	4	41	11	29	42	526	2	2	432	28
Total Analysis Volume [veh/h]	13	53	16	162	45	116	167	2103	10	8	1727	113
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	116	16	16	18	37	0	13	32	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	7	10	10	10	12	69	69	1	58	58
g / C, Green / Cycle	0.06	0.09	0.09	0.09	0.11	0.62	0.62	0.01	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.05	0.05	0.03	0.08	0.10	0.43	0.43	0.00	0.38	0.08
s, saturation flow rate [veh/h]	1615	3113	1683	1431	1603	3204	1679	1603	4584	1431
c, Capacity [veh/h]	105	293	159	135	180	1996	1046	18	2391	746
d1, Uniform Delay [s]	50.73	47.66	46.42	49.16	48.44	13.80	13.80	54.14	20.22	13.68
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.94	1.62	0.97	14.47	17.88	2.02	3.81	17.37	1.93	0.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.55	0.28	0.86	0.93	0.69	0.69	0.46	0.72	0.15
d, Delay for Lane Group [s/veh]	62.67	49.28	47.39	63.63	66.32	15.82	17.62	71.50	22.15	14.11
Lane Group LOS	E	D	D	E	E	B	B	E	C	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.51	2.13	1.16	3.59	5.25	9.97	10.98	0.30	10.41	1.42
50th-Percentile Queue Length [ft/ln]	62.76	53.21	28.97	89.72	131.20	249.13	274.43	7.43	260.23	35.38
95th-Percentile Queue Length [veh/ln]	4.52	3.83	2.09	6.46	9.00	15.14	16.41	0.54	15.70	2.55
95th-Percentile Queue Length [ft/ln]	112.97	95.78	52.14	161.49	225.12	378.56	410.28	13.38	392.51	63.68

Movement, Approach, & Intersection Results

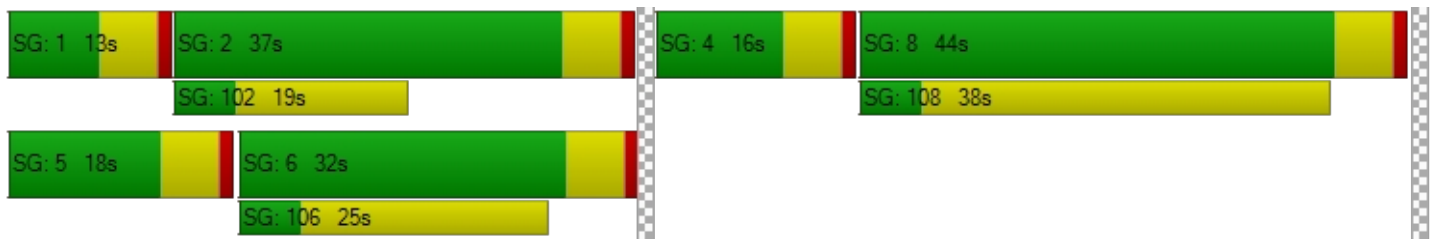
d_M, Delay for Movement [s/veh]	62.67	62.67	62.67	49.28	47.39	63.63	66.32	16.43	17.62	71.50	22.15	14.11
Movement LOS	E	E	E	D	D	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	62.67			54.17			20.09			21.87		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	24.02											
Intersection LOS	C											
Intersection V/C	0.613											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	46.37
I_p,int, Pedestrian LOS Score for Intersection	1.832	2.624	0.000	3.575
Crosswalk LOS	A	B	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	187	569	478
d_b, Bicycle Delay [s]	23.37	45.18	28.15	31.84
I_b,int, Bicycle LOS Score for Intersection	1.695	2.093	2.814	2.576
Bicycle LOS	A	B	C	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	193.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.261

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	14	6	11	115	7	1262	572	2557	28	15	2194	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	6	11	115	7	1262	572	2557	28	15	2194	43
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	3	33	2	358	162	725	8	4	622	12
Total Analysis Volume [veh/h]	16	7	12	130	8	1431	649	2899	32	17	2488	49
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	14	68	0	11	65	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.05	0.14	0.57	0.40	0.60	0.60	0.01	0.52	0.52
s, saturation flow rate [veh/h]	716	978	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	252	343	1561	454	1753	916	31	908	472
d1, Uniform Delay [s]	28.88	32.57	17.91	37.93	23.96	23.96	51.41	37.91	37.91
k, delay calibration	0.11	0.11	0.42	0.50	0.46	0.50	0.11	0.36	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	0.76	8.68	205.86	52.25	61.81	13.80	378.38	387.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.40	0.92	1.43	1.10	1.10	0.54	1.83	1.84
d, Delay for Lane Group [s/veh]	29.13	33.33	26.59	243.79	76.21	85.77	65.21	416.29	425.89
Lane Group LOS	C	C	C	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.67	3.08	15.69	37.04	31.57	35.41	0.55	58.84	62.45
50th-Percentile Queue Length [ft/ln]	16.71	77.09	392.31	926.06	789.32	885.29	13.86	1470.92	1561.37
95th-Percentile Queue Length [veh/ln]	1.20	5.55	22.19	56.54	43.85	48.80	1.00	92.69	98.10
95th-Percentile Queue Length [ft/ln]	30.09	138.76	554.73	1413.58	1096.19	1219.98	24.95	2317.24	2452.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.13	29.13	29.13	33.33	33.33	26.59	243.79	79.44	85.77	65.21	419.46	425.89
Movement LOS	C	C	C	C	C	C	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	29.13			27.18			109.29			417.23		
Approach LOS	C			C			F			F		
d_I, Intersection Delay [s/veh]	193.92											
Intersection LOS	F											
Intersection V/C	1.261											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	127			127			1393			1327		
d_b, Bicycle Delay [s]	39.48			39.48			4.14			5.10		
I_b,int, Bicycle LOS Score for Intersection	1.617			4.148			3.529			2.964		
Bicycle LOS	A			D			D			C		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.546

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	188	845	52	74	807	131	52	74	79	46	158	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	845	52	74	807	131	52	74	79	46	158	123
Peak Hour Factor	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	233	14	20	223	36	14	20	22	13	44	34
Total Analysis Volume [veh/h]	208	934	57	82	892	145	57	82	87	51	175	136
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	17	31	0	14	28	0	13	34	0	11	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	14	47	47	6	39	39	4	8	8	8	12	12
g / C, Green / Cycle	0.15	0.53	0.53	0.06	0.44	0.44	0.04	0.08	0.08	0.09	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.13	0.29	0.04	0.05	0.28	0.10	0.04	0.05	0.06	0.03	0.10	0.10
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1448
c, Capacity [veh/h]	244	1689	754	102	1405	627	71	142	121	143	217	187
d1, Uniform Delay [s]	37.16	14.21	10.48	41.58	19.67	15.80	42.60	39.67	40.18	38.57	37.80	38.04
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.12	1.31	0.20	13.40	0.48	0.19	17.90	3.66	7.81	1.50	5.13	7.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.85	0.55	0.08	0.80	0.63	0.23	0.80	0.58	0.72	0.36	0.75	0.79
d, Delay for Lane Group [s/veh]	45.27	15.52	10.68	54.98	20.15	15.98	60.50	43.33	47.99	40.07	42.93	45.43
Lane Group LOS	D	B	B	D	C	B	E	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.87	6.05	0.56	2.10	6.56	1.72	1.57	1.83	2.07	1.07	3.59	3.39
50th-Percentile Queue Length [ft/ln]	121.83	151.16	13.94	52.39	164.11	43.05	39.25	45.76	51.84	26.79	89.78	84.78
95th-Percentile Queue Length [veh/ln]	8.49	10.08	1.00	3.77	10.77	3.10	2.83	3.29	3.73	1.93	6.46	6.10
95th-Percentile Queue Length [ft/ln]	212.34	251.97	25.10	94.30	269.16	77.48	70.66	82.37	93.32	48.22	161.61	152.61

Movement, Approach, & Intersection Results

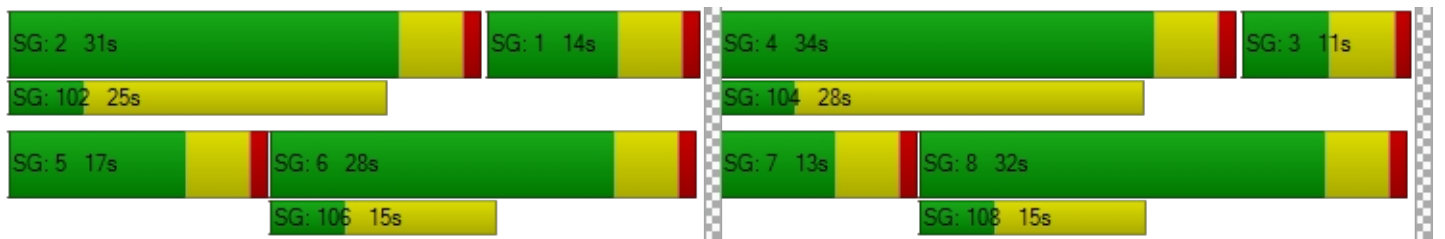
d_M, Delay for Movement [s/veh]	45.27	15.52	10.68	54.98	20.15	15.98	60.50	43.33	47.99	40.07	43.10	45.43
Movement LOS	D	B	B	D	C	B	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	20.45			22.16			49.45			43.55		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	26.24											
Intersection LOS	C											
Intersection V/C	0.546											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.877	3.002	2.497	2.472
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	504	638	593
d_b, Bicycle Delay [s]	22.97	25.16	20.88	22.26
I_b,int, Bicycle LOS Score for Intersection	2.549	2.483	1.746	1.858
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type:	All-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.288

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔↔↔			↔↔			↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	7	101	141	106	135	2	0	44	22	115	14	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	101	141	106	135	2	0	44	22	115	14	25
Peak Hour Factor	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	31	43	33	42	1	0	14	7	35	4	8
Total Analysis Volume [veh/h]	9	124	174	131	166	2	0	54	27	142	17	31
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	536	580	653	540	584	537	556	517	557	624
Degree of Utilization, x	0.02	0.21	0.27	0.24	0.29	0.00	0.15	0.27	0.03	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.05	0.81	1.07	0.94	1.18	0.00	0.51	1.11	0.09	0.16
95th-Percentile Queue Length [ft]	1.28	20.14	26.77	23.61	29.60	0.00	12.68	27.73	2.36	3.91
Approach Delay [s/veh]	10.35			11.40			10.28		11.44	
Approach LOS	B			B			B		B	
Intersection Delay [s/veh]	10.94									
Intersection LOS	B									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.733

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↔		↗		↖	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	67	43	345	186	46	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	43	345	186	46	170
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	12	97	52	13	48
Total Analysis Volume [veh/h]	76	48	389	210	52	192
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	631	817	718
Degree of Utilization, x	0.20	0.73	0.34

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.73	6.64	1.51
95th-Percentile Queue Length [ft]	18.15	165.92	37.70
Approach Delay [s/veh]	10.10	18.51	10.58
Approach LOS	B	C	B
Intersection Delay [s/veh]	15.43		
Intersection LOS	C		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 26.6
 Level Of Service: D
 Volume to Capacity (v/c): 0.898

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	28	68	6	356	56	27	18	165	27	6	115	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	68	6	356	56	27	18	165	27	6	115	107
Peak Hour Factor	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410	0.8410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	20	2	106	17	8	5	49	8	2	34	32
Total Analysis Volume [veh/h]	33	81	7	423	67	32	21	196	32	7	137	127
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	481	544	581	542	564
Degree of Utilization, x	0.24	0.01	0.90	0.46	0.48

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.91	0.04	10.78	2.39	2.60
95th-Percentile Queue Length [ft]	22.86	0.98	269.49	59.82	64.89
Approach Delay [s/veh]	12.32		41.36	15.16	15.17
Approach LOS	B		E	C	C
Intersection Delay [s/veh]	26.62				
Intersection LOS	D				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.9
 Level Of Service: B
 Volume to Capacity (v/c): 0.034

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	47	105	27	6	71	14	16	43	15	10	43	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	105	27	6	71	14	16	43	15	10	43	6
Peak Hour Factor	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850	0.8850
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	30	8	2	20	4	5	12	4	3	12	2
Total Analysis Volume [veh/h]	53	119	31	7	80	16	18	49	17	11	49	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.09	0.02	0.02	0.09	0.01
d_M, Delay for Movement [s/veh]	7.49	0.00	0.00	7.53	0.00	0.00	12.87	12.63	9.72	12.85	12.41	9.79
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.11	0.01	0.01	0.01	0.49	0.49	0.49	0.40	0.40	0.40
95th-Percentile Queue Length [ft/ln]	2.75	2.75	2.75	0.37	0.37	0.37	12.32	12.32	12.32	10.00	10.00	10.00
d_A, Approach Delay [s/veh]	1.96			0.51			12.09			12.21		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	5.00											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 10.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.065

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	1	38	2	10	27	16	32	48	1	2	44	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	38	2	10	27	16	32	48	1	2	44	15
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	1	3	8	5	9	14	0	1	13	4
Total Analysis Volume [veh/h]	1	44	2	12	31	19	37	56	1	2	51	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.02	0.05	0.02	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.65	10.72	8.95	10.66	10.70	9.00	7.41	0.00	0.00	7.33	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.22	0.27	0.27	0.27	0.07	0.07	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.51	5.51	5.51	6.66	6.66	6.66	1.85	1.85	1.85	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	10.64			10.17			2.92			0.21		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.20											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 13: Dwy 1/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 17.3
 Level Of Service: C
 Volume to Capacity (v/c): 0.185

Intersection Setup

Name	3rd		3rd		Dwy 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		↩↑↑		↔	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 1	
Base Volume Input [veh/h]	434	20	10	472	66	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	434	20	10	472	66	34
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	5	3	120	17	9
Total Analysis Volume [veh/h]	443	20	10	482	67	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.18	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.32	0.00	17.34	12.08
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	0.88	0.88
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.69	0.00	21.97	21.97
d_A, Approach Delay [s/veh]	0.00		0.17		15.54	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.58					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 14: Dwy 2/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 18.2
 Level Of Service: C
 Volume to Capacity (v/c): 0.101

Intersection Setup

Name	3rd		3rd		Dwy 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		↩↑↑		↔	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 2	
Base Volume Input [veh/h]	386	100	57	462	30	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	386	100	57	462	30	39
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	26	15	118	8	10
Total Analysis Volume [veh/h]	394	102	58	471	31	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.10	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.58	0.00	18.17	11.21
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.17	0.00	0.54	0.54
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.32	0.00	13.54	13.54
d_A, Approach Delay [s/veh]	0.00		0.94		14.25	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.38					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 15: Bear Valley/Dwy 3**

Control Type:	Two-way stop	Delay (sec / veh):	20.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.095

Intersection Setup

Name	Dwy 3		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↻				↻	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 3		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	24	0	2098	1705	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	24	0	2098	1705	23
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	0	535	435	6
Total Analysis Volume [veh/h]	0	24	0	2141	1740	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.09	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	20.71	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.31	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	7.77	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	20.71		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 16: Bear Valley/Dwy 4**

Control Type:	Two-way stop	Delay (sec / veh):	22.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.194

Intersection Setup

Name	Dwy 4		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱				↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 4		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	49	0	2098	1679	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	0	2098	1679	40
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	535	428	10
Total Analysis Volume [veh/h]	0	50	0	2141	1713	41
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.19	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	22.25	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.70	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	17.53	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	22.25		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 17: Bear Valley/Dwy 5**

Control Type:	Two-way stop	Delay (sec / veh):	22.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.193

Intersection Setup

Name	Dwy 5		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 5		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	49	0	2098	1675	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	0	2098	1675	40
Peak Hour Factor	1.0000	0.9800	1.0000	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	535	427	10
Total Analysis Volume [veh/h]	0	50	0	2141	1709	41
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.19	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	22.19	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.70	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	17.47	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	22.19		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 18: Dwy 6/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.051

Intersection Setup

Name	2nd		2nd		Dwy 6	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	70.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 6	
Base Volume Input [veh/h]	67	240	225	23	24	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	240	225	23	24	88
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	61	57	6	6	22
Total Analysis Volume [veh/h]	68	245	230	23	24	90
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.05	0.10
d_M, Delay for Movement [s/veh]	7.90	0.00	0.00	0.00	13.43	9.84
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.53	0.53
95th-Percentile Queue Length [ft/ln]	4.10	0.00	0.00	0.00	13.21	13.21
d_A, Approach Delay [s/veh]	1.72		0.00		10.60	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.57					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 19: Dwy 7/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 12.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.045

Intersection Setup

Name	2nd		2nd		Dwy 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↩ ↑ ↑		↑ ↩		↔	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 7	
Base Volume Input [veh/h]	44	213	226	13	24	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	213	226	13	24	24
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	54	58	3	6	6
Total Analysis Volume [veh/h]	45	217	231	13	24	24
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.05	0.03
d_M, Delay for Movement [s/veh]	7.83	0.00	0.00	0.00	12.21	9.39
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.11	0.00	0.00	0.00	0.23	0.23
95th-Percentile Queue Length [ft/ln]	2.65	0.00	0.00	0.00	5.78	5.78
d_A, Approach Delay [s/veh]	1.34		0.00		10.80	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.57					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 20: Dwy 8/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.1
 Level Of Service: A
 Volume to Capacity (v/c): 0.038

Intersection Setup

Name	2nd		2nd		Dwy 8	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	⇕		⇕⇨		⇨	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 8	
Base Volume Input [veh/h]	0	246	214	10	0	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	246	214	10	0	34
Peak Hour Factor	0.9200	0.9800	0.9800	0.9800	0.9200	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	63	55	3	0	9
Total Analysis Volume [veh/h]	0	251	218	10	0	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.08
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	2.97
d_A, Approach Delay [s/veh]	0.00		0.00		9.08	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.62					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Bear Valley/I-15 SB

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.630

Intersection Setup

Name	Northbound			I-15 SB Ramp			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	2	0	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	400.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				Yes			Yes			Yes		
Crosswalk	No			Yes			No			No		

Volumes

Name				I-15 SB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	0	0	0	389	0	482	0	1911	335	0	1928	471
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	389	0	482	0	1911	335	0	1928	471
Peak Hour Factor	0.9710	0.9710	0.9710	0.9640	1.0000	0.9640	1.0000	0.9640	0.9640	1.0000	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	101	0	125	0	496	87	0	500	122
Total Analysis Volume [veh/h]	0	0	0	404	0	500	0	1982	348	0	2000	489
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	56	0	0	0	34	0	0	34	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]		21	21	58	58	58	58
g / C, Green / Cycle		0.24	0.24	0.64	0.64	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.13	0.20	0.43	0.24	0.41	0.42
s, saturation flow rate [veh/h]		3113	2532	4584	1431	4584	1478
c, Capacity [veh/h]		742	604	2951	921	2951	951
d1, Uniform Delay [s]		29.95	32.47	10.05	7.54	9.62	9.85
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.62	2.99	1.24	1.18	1.04	3.50
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.54	0.83	0.67	0.38	0.63	0.65
d, Delay for Lane Group [s/veh]		30.57	35.47	11.29	8.72	10.67	13.35
Lane Group LOS		C	D	B	A	B	B
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		3.70	5.13	6.82	2.86	6.13	6.91
50th-Percentile Queue Length [ft/ln]		92.58	128.36	170.58	71.62	153.35	172.82
95th-Percentile Queue Length [veh/ln]		6.67	8.85	11.11	5.16	10.20	11.22
95th-Percentile Queue Length [ft/ln]		166.64	221.26	277.67	128.92	254.89	280.62

Movement, Approach, & Intersection Results

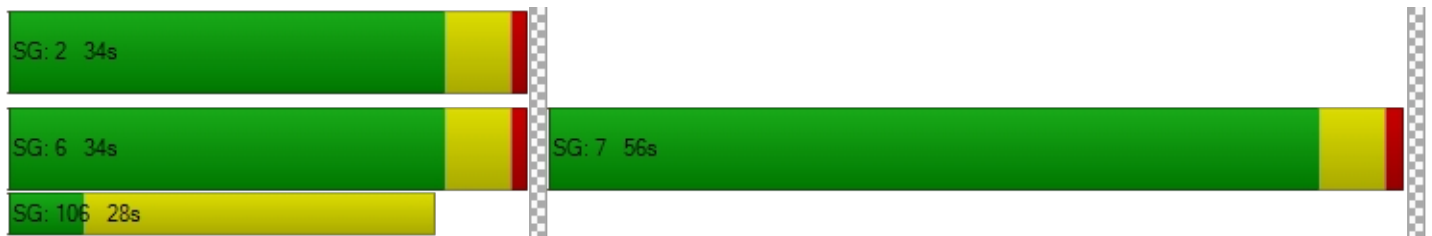
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	30.57	0.00	35.47	0.00	11.29	8.72	0.00	10.85	13.35
Movement LOS				C		D		B	A		B	B
d_A, Approach Delay [s/veh]	0.00			33.28			10.90			11.34		
Approach LOS	A			C			B			B		
d_I, Intersection Delay [s/veh]	14.63											
Intersection LOS	B											
Intersection V/C	0.630											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	36.45	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.664	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1127	638	638
d_b, Bicycle Delay [s]	45.00	8.58	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.841	2.586
Bicycle LOS	D	A	C	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	145.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.231

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	467	2	760	0	0	0	334	1928	0	0	1987	239
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	467	2	760	0	0	0	334	1928	0	0	1987	239
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	119	1	194	0	0	0	85	492	0	0	507	61
Total Analysis Volume [veh/h]	477	2	776	0	0	0	341	1969	0	0	2030	244
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	68	68	0	0	0	0	31	92	0	0	61	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	160	160		160	160	160	160
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	63	63		26	87	56	56
g / C, Green / Cycle	0.39	0.39		0.16	0.54	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.30	0.54		0.21	0.43	0.47	0.48
s, saturation flow rate [veh/h]	1603	1431		1603	4584	3204	1593
c, Capacity [veh/h]	626	559		258	2489	1119	556
d1, Uniform Delay [s]	42.34	48.73		67.14	29.28	52.06	52.06
k, delay calibration	0.28	0.50		0.50	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.06	185.56		170.33	2.66	165.58	174.73
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	1.39		1.32	0.79	1.35	1.36
d, Delay for Lane Group [s/veh]	47.40	234.29		237.47	31.94	217.64	226.78
Lane Group LOS	D	F		F	C	F	F
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	17.08	50.57		22.60	20.17	47.75	48.87
50th-Percentile Queue Length [ft/ln]	426.96	1264.20		565.12	504.18	1193.74	1221.84
95th-Percentile Queue Length [veh/ln]	23.86	75.77		34.39	27.53	70.66	72.38
95th-Percentile Queue Length [ft/ln]	596.40	1894.17		859.68	688.30	1766.53	1809.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.40	47.40	234.29	0.00	0.00	0.00	237.47	31.94	0.00	0.00	219.95	226.78
Movement LOS	D	D	F				F	C			F	F
d_A, Approach Delay [s/veh]	162.96			0.00			62.28			220.69		
Approach LOS	F			A			E			F		
d_I, Intersection Delay [s/veh]	145.61											
Intersection LOS	F											
Intersection V/C	1.231											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	71.25	71.25	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.512	2.125	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	784	0	1084	696
d_b, Bicycle Delay [s]	29.59	80.00	16.79	34.00
I_b,int, Bicycle LOS Score for Intersection	3.630	4.132	2.830	2.810
Bicycle LOS	D	D	C	C

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	68.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.908

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	129	302	125	183	363	113	115	2098	140	142	1954	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	302	125	183	363	113	115	2098	140	142	1954	157
Peak Hour Factor	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	77	32	46	92	29	29	533	36	36	496	40
Total Analysis Volume [veh/h]	131	307	127	186	369	115	117	2132	142	144	1986	160
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	4.7	0.0	3.0	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	42	0	9	41	0	16	61	0	18	63	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	3.7	0.0	2.0	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	5.70	5.70	4.85	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	36	36	37	35	35	10	55	55	12	57	57
g / C, Green / Cycle	0.28	0.28	0.29	0.27	0.27	0.08	0.43	0.43	0.09	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.12	0.27	0.17	0.22	0.08	0.07	0.47	0.10	0.09	0.43	0.11
s, saturation flow rate [veh/h]	1063	1600	1114	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	192	447	188	459	390	127	1948	608	152	2019	630
d1, Uniform Delay [s]	40.78	46.34	55.99	44.07	37.41	59.44	37.38	23.86	58.54	35.92	22.92
k, delay calibration	0.11	0.42	0.14	0.29	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.27	32.67	32.43	8.47	0.42	21.95	51.33	0.90	23.53	16.56	0.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.97	0.99	0.80	0.30	0.92	1.09	0.23	0.95	0.98	0.25
d, Delay for Lane Group [s/veh]	45.04	79.01	88.41	52.54	37.83	81.39	88.71	24.76	82.06	52.48	23.90
Lane Group LOS	D	E	F	D	D	F	F	C	F	D	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.43	17.43	6.42	11.93	2.92	4.49	28.42	2.83	5.56	22.26	3.13
50th-Percentile Queue Length [ft/ln]	85.80	435.81	160.57	298.14	72.88	112.32	710.45	70.67	139.11	556.55	78.15
95th-Percentile Queue Length [veh/ln]	6.18	24.28	10.58	17.59	5.25	7.97	39.65	5.09	9.43	30.00	5.63
95th-Percentile Queue Length [ft/ln]	154.44	606.99	264.48	439.73	131.18	199.23	991.27	127.20	235.82	750.00	140.67

Movement, Approach, & Intersection Results

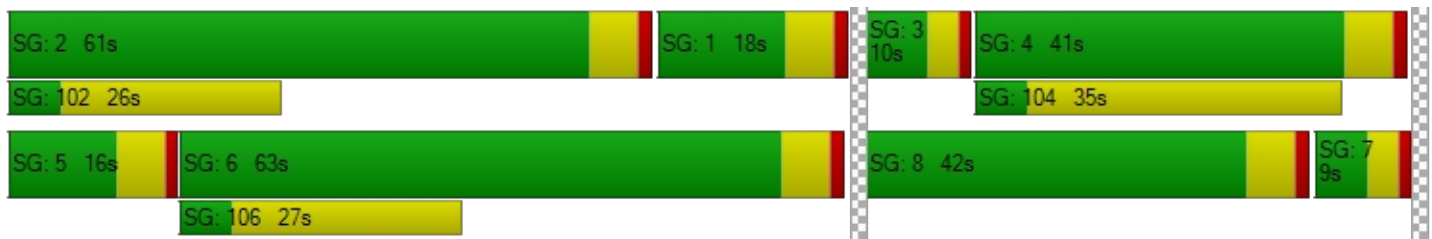
d_M, Delay for Movement [s/veh]	45.04	79.01	79.01	88.41	52.54	37.83	81.39	88.71	24.76	82.06	52.48	23.90
Movement LOS	D	E	E	F	D	D	F	F	C	F	D	C
d_A, Approach Delay [s/veh]	71.14			59.97			84.55			52.34		
Approach LOS	E			E			F			D		
d_I, Intersection Delay [s/veh]	68.02											
Intersection LOS	E											
Intersection V/C	0.908											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.31	56.31	56.31	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.596	2.645	3.724	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	558	543	851	882
d_b, Bicycle Delay [s]	33.77	34.49	21.46	20.33
I_b,int, Bicycle LOS Score for Intersection	2.492	2.665	2.875	2.819
Bicycle LOS	B	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 4: Bear Valley/3rd Ave**

Control Type:	Signalized	Delay (sec / veh):	53.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.841

Intersection Setup

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	200.00	200.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	3rd Ave			3rd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	123	311	112	187	369	148	211	1919	126	123	1890	144
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	311	112	187	369	148	211	1919	126	123	1890	144
Peak Hour Factor	0.9700	1.0000	0.9700	1.0000	1.0000	1.0000	1.0000	0.9700	0.9700	0.9700	0.9700	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	78	29	47	92	37	53	495	32	32	487	36
Total Analysis Volume [veh/h]	127	311	115	187	369	148	211	1978	130	127	1948	144
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	26	0	17	32	0	20	54	0	13	47	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	23	0	0	23	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	20	20	20	24	24	24	14	48	48	9	44	44
g / C, Green / Cycle	0.18	0.18	0.18	0.22	0.22	0.22	0.13	0.44	0.44	0.09	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.18	0.13	0.13	0.16	0.22	0.10	0.13	0.43	0.09	0.08	0.42	0.10
s, saturation flow rate [veh/h]	716	1710	1556	1144	1710	1454	1629	4584	1431	1603	4584	1454
c, Capacity [veh/h]	226	313	285	285	373	317	212	2022	631	137	1817	576
d1, Uniform Delay [s]	40.42	42.16	42.26	41.20	42.88	37.44	47.83	30.22	18.90	49.98	33.20	22.25
k, delay calibration	0.17	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	3.42	12.63	14.47	11.19	44.00	4.87	27.91	5.53	0.16	21.97	35.34	0.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.56	0.71	0.72	0.66	0.99	0.47	1.00	0.98	0.21	0.93	1.07	0.25
d, Delay for Lane Group [s/veh]	43.84	54.78	56.74	52.39	86.88	42.31	75.73	35.75	19.06	71.95	68.55	22.47
Lane Group LOS	D	D	E	D	F	D	E	D	B	E	F	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.26	6.71	6.35	5.32	14.44	3.89	7.17	16.47	1.93	4.17	20.66	2.38
50th-Percentile Queue Length [ft/ln]	81.43	167.63	158.68	133.04	360.93	97.21	179.15	411.71	48.28	104.14	516.55	59.50
95th-Percentile Queue Length [veh/ln]	5.86	10.95	10.48	9.10	20.67	7.00	11.56	23.12	3.48	7.50	29.50	4.28
95th-Percentile Queue Length [ft/ln]	146.58	273.80	261.97	227.62	516.71	174.97	288.91	578.09	86.90	187.45	737.42	107.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.84	55.35	56.74	52.39	86.88	42.31	75.73	35.75	19.06	71.95	68.55	22.47
Movement LOS	D	E	E	D	F	D	E	D	B	E	F	C
d_A, Approach Delay [s/veh]	52.99			68.35			38.45			65.75		
Approach LOS	D			E			D			E		
d_I, Intersection Delay [s/veh]	53.93											
Intersection LOS	D											
Intersection V/C	0.841											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.430	2.578	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	369	478	878	751
d_b, Bicycle Delay [s]	36.57	31.84	17.30	21.45
I_b,int, Bicycle LOS Score for Intersection	2.016	2.721	2.835	2.780
Bicycle LOS	B	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 5: Bear Valley/2nd Ave**

Control Type:	Signalized	Delay (sec / veh):	40.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name	2nd			2nd			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			← →			← →			← →		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	150.00	200.00	100.00	100.00	175.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	2nd			2nd			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	30	52	36	200	66	179	171	2098	26	28	2043	124
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	52	36	200	66	179	171	2098	26	28	2043	124
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	14	9	52	17	47	45	547	7	7	533	32
Total Analysis Volume [veh/h]	31	54	38	209	69	187	178	2190	27	29	2133	129
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	5	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	44	0	136	19	19	17	50	0	17	50	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	33	0	0	10	10	0	14	0	0	20	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.7	0.0	3.7	3.7	3.7	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	12	13	13	13	11	78	78	3	70	70
g / C, Green / Cycle	0.09	0.10	0.10	0.10	0.09	0.60	0.60	0.03	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.08	0.07	0.04	0.13	0.11	0.45	0.46	0.02	0.47	0.09
s, saturation flow rate [veh/h]	1577	3113	1683	1431	1603	3204	1673	1603	4584	1431
c, Capacity [veh/h]	147	320	173	147	140	1932	1008	41	2481	774
d1, Uniform Delay [s]	57.98	56.11	54.58	58.34	59.34	18.79	18.83	62.85	25.60	15.05
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.64	2.26	1.48	134.05	133.34	2.78	5.26	19.31	4.17	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.65	0.40	1.27	1.27	0.75	0.76	0.70	0.86	0.17
d, Delay for Lane Group [s/veh]	69.62	58.37	56.07	192.39	192.68	21.57	24.09	82.16	29.77	15.51
Lane Group LOS	E	E	E	F	F	C	C	F	C	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.37	3.33	2.15	10.20	9.67	14.78	16.19	1.15	17.92	1.91
50th-Percentile Queue Length [ft/ln]	109.24	83.30	53.68	255.03	241.83	369.39	404.71	28.74	447.96	47.71
95th-Percentile Queue Length [veh/ln]	7.80	6.00	3.86	16.80	15.99	21.08	22.79	2.07	24.86	3.44
95th-Percentile Queue Length [ft/ln]	194.95	149.94	96.62	420.08	399.82	526.98	569.67	51.73	621.51	85.88

Movement, Approach, & Intersection Results

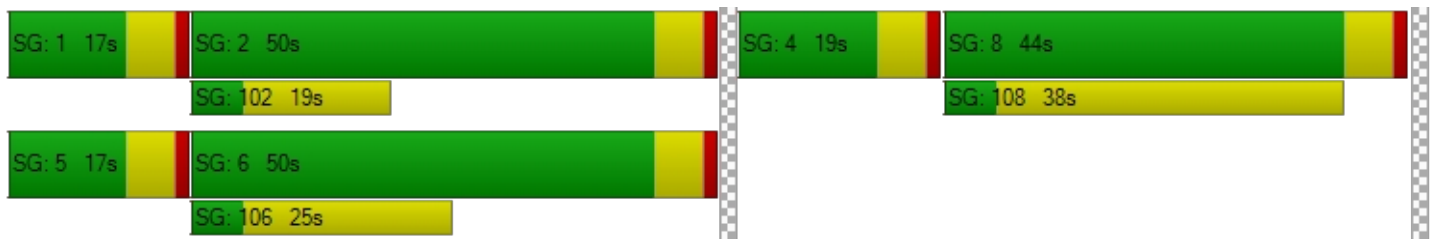
d_M, Delay for Movement [s/veh]	69.62	69.62	69.62	58.37	56.07	192.39	192.68	22.42	24.09	82.16	29.77	15.51
Movement LOS	E	E	E	E	E	F	F	C	C	F	C	B
d_A, Approach Delay [s/veh]	69.62			111.93			35.09			29.63		
Approach LOS	E			F			D			C		
d_I, Intersection Delay [s/veh]	40.30											
Intersection LOS	D											
Intersection V/C	0.785											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.31	56.31	0.00	56.31
I_p,int, Pedestrian LOS Score for Intersection	1.915	2.673	0.000	3.705
Crosswalk LOS	A	B	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	589	205	682	682
d_b, Bicycle Delay [s]	32.34	52.38	28.25	28.25
I_b,int, Bicycle LOS Score for Intersection	1.763	2.327	2.877	2.820
Bicycle LOS	A	B	C	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	240.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.345

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	26	6	11	106	1	920	847	3239	11	4	2306	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	6	11	106	1	920	847	3239	11	4	2306	48
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	2	3	28	0	244	225	861	3	1	613	13
Total Analysis Volume [veh/h]	28	6	12	113	1	978	900	3442	12	4	2451	51
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	68	68	0	11	11	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	29	29	64	30	59	59	1	30	30
g / C, Green / Cycle	0.27	0.27	0.61	0.29	0.57	0.57	0.01	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.39	0.56	0.71	0.71	0.00	0.51	0.52
s, saturation flow rate [veh/h]	879	1140	2532	1603	3204	1680	1603	3204	1666
c, Capacity [veh/h]	296	381	1549	460	1819	954	10	919	478
d1, Uniform Delay [s]	32.20	30.92	12.83	37.22	22.57	22.57	51.69	37.24	37.24
k, delay calibration	0.11	0.11	0.19	0.50	0.50	0.50	0.11	0.35	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	0.44	0.76	437.56	114.91	119.91	23.17	357.44	367.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.30	0.63	1.95	1.24	1.25	0.40	1.79	1.80
d, Delay for Lane Group [s/veh]	32.44	31.35	13.59	474.78	137.48	142.48	74.87	394.68	404.24
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.02	2.37	6.85	67.03	47.93	51.59	0.17	56.69	60.20
50th-Percentile Queue Length [ft/ln]	25.48	59.35	171.16	1675.65	1198.32	1289.65	4.16	1417.20	1504.94
95th-Percentile Queue Length [veh/ln]	1.83	4.27	11.14	106.01	69.68	74.63	0.30	89.15	94.39
95th-Percentile Queue Length [ft/ln]	45.86	106.83	278.44	2650.14	1742.11	1865.84	7.50	2228.75	2359.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.44	32.44	32.44	31.35	31.35	13.59	474.78	139.19	142.48	74.87	397.83	404.24
Movement LOS	C	C	C	C	C	B	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	32.44			15.45			208.57			397.45		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	240.37											
Intersection LOS	F											
Intersection V/C	1.345											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	127
d_b, Bicycle Delay [s]	39.48	39.48	4.14	39.48
I_b,int, Bicycle LOS Score for Intersection	1.636	3.361	3.954	2.938
Bicycle LOS	A	C	D	C

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 7: Jasmine/Hesperia**

Control Type:	Signalized	Delay (sec / veh):	32.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.660

Intersection Setup

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	150.00	100.00	200.00	175.00	100.00	200.00	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Hesperia			Hesperia			Jasmine			Jasmine		
Base Volume Input [veh/h]	175	1224	51	110	870	95	103	124	170	62	87	143
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	175	1224	51	110	870	95	103	124	170	62	87	143
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	328	14	30	233	25	28	33	46	17	23	38
Total Analysis Volume [veh/h]	188	1313	55	118	933	102	111	133	182	67	93	153
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	31	0	14	29	0	11	34	0	11	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	20	0	0	10	0	0	23	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	13	41	41	8	37	37	8	14	14	6	12	12
g / C, Green / Cycle	0.14	0.46	0.46	0.09	0.41	0.41	0.09	0.15	0.15	0.07	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.12	0.41	0.04	0.07	0.29	0.07	0.07	0.08	0.13	0.04	0.06	0.11
s, saturation flow rate [veh/h]	1603	3204	1431	1603	3204	1431	1603	1683	1431	1603	1683	1431
c, Capacity [veh/h]	224	1461	652	144	1302	581	139	258	219	105	222	189
d1, Uniform Delay [s]	37.76	22.58	13.86	40.25	22.39	17.09	40.33	35.04	36.98	41.02	35.90	37.98
k, delay calibration	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering 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
d2, Incremental Delay [s]	8.23	9.12	0.25	10.80	0.75	0.14	9.91	1.59	7.86	6.28	1.26	8.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.84	0.90	0.08	0.82	0.72	0.18	0.80	0.52	0.83	0.64	0.42	0.81
d, Delay for Lane Group [s/veh]	45.98	31.71	14.12	51.05	23.15	17.23	50.24	36.63	44.83	47.30	37.16	46.03
Lane Group LOS	D	C	B	D	C	B	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.43	13.52	0.65	2.88	7.56	1.26	2.71	2.69	4.20	1.57	1.86	3.53
50th-Percentile Queue Length [ft/ln]	110.78	337.93	16.15	71.93	188.93	31.54	67.71	67.25	104.94	39.20	46.58	88.26
95th-Percentile Queue Length [veh/ln]	7.88	19.55	1.16	5.18	12.07	2.27	4.88	4.84	7.56	2.82	3.35	6.35
95th-Percentile Queue Length [ft/ln]	197.09	488.67	29.07	129.47	301.64	56.77	121.88	121.04	188.90	70.55	83.85	158.87

Movement, Approach, & Intersection Results

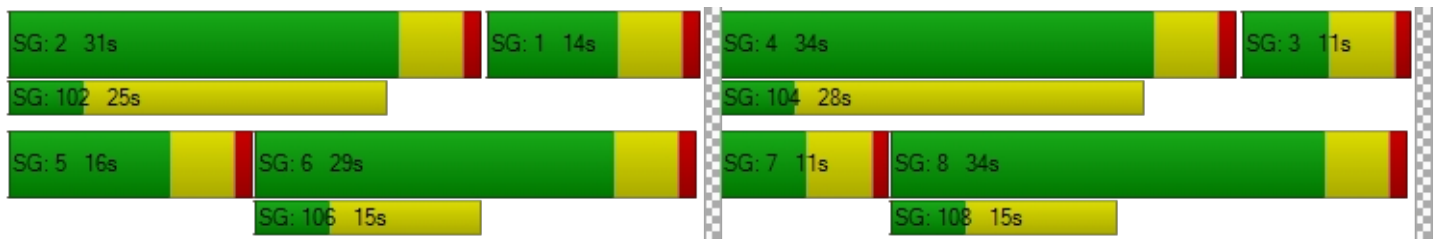
d_M, Delay for Movement [s/veh]	45.98	31.71	14.12	51.05	23.15	17.23	50.24	36.63	44.83	47.30	37.16	46.03
Movement LOS	D	C	B	D	C	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	32.81			25.48			43.68			43.67		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	32.69											
Intersection LOS	C											
Intersection V/C	0.660											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.973	3.120	2.512	2.482
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	571	527	638	638
d_b, Bicycle Delay [s]	22.97	24.42	20.88	20.88
I_b,int, Bicycle LOS Score for Intersection	2.843	2.511	1.911	1.818
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 8: Jasmine/2nd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.378

Intersection Setup

Name	2nd			2nd			Jasmine			Jasmine		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵↵			↵↵			↵↵			↵↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	125.00	100.00	100.00	80.00	100.00	100.00	90.00	100.00	100.00	170.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			30.00			30.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Jasmine			Jasmine		
Base Volume Input [veh/h]	27	137	147	52	116	1	0	16	17	166	18	105
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	137	147	52	116	1	0	16	17	166	18	105
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	41	44	16	35	0	0	5	5	50	5	32
Total Analysis Volume [veh/h]	33	166	178	63	140	1	0	19	21	201	22	127
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	532	574	646	512	552	528	557	532	575	646
Degree of Utilization, x	0.06	0.29	0.28	0.12	0.26	0.00	0.07	0.38	0.04	0.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.20	1.19	1.12	0.42	1.01	0.00	0.23	1.75	0.12	0.73
95th-Percentile Queue Length [ft]	4.95	29.82	28.00	10.44	25.25	0.00	5.78	43.64	2.98	18.17
Approach Delay [s/veh]	10.84			11.22			9.66		11.83	
Approach LOS	B			B			A		B	
Intersection Delay [s/veh]	11.23									
Intersection LOS	B									

**Intersection Level Of Service Report
Intersection 9: Silica/2nd**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.1
 Level Of Service: B
 Volume to Capacity (v/c): 0.547

Intersection Setup

Name	2nd		Silica		Silica	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↔		↗		↖	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	2nd		Silica		Silica	
Base Volume Input [veh/h]	193	47	185	121	53	211
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	193	47	185	121	53	211
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	15	58	38	17	66
Total Analysis Volume [veh/h]	241	59	231	151	66	264
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	620	698	657
Degree of Utilization, x	0.48	0.55	0.50

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.64	3.34	2.84
95th-Percentile Queue Length [ft]	66.03	83.59	70.91
Approach Delay [s/veh]	14.14	14.21	13.90
Approach LOS	B	B	B
Intersection Delay [s/veh]	14.09		
Intersection LOS	B		

**Intersection Level Of Service Report
Intersection 10: Silica/3rd Ave**

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 22.4
 Level Of Service: C
 Volume to Capacity (v/c): 0.778

Intersection Setup

Name	3rd			3rd			Silica			Silica		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd			3rd			Silica			Silica		
Base Volume Input [veh/h]	34	65	4	175	92	58	47	127	30	5	201	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	65	4	175	92	58	47	127	30	5	201	185
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	19	1	52	27	17	14	38	9	1	60	55
Total Analysis Volume [veh/h]	40	77	5	208	110	69	56	151	36	6	239	220
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	454	513	542	535	598
Degree of Utilization, x	0.26	0.01	0.71	0.45	0.78

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.02	0.03	5.77	2.35	7.29
95th-Percentile Queue Length [ft]	25.41	0.74	144.23	58.71	182.33
Approach Delay [s/veh]	13.21		24.50	15.22	26.89
Approach LOS	B		C	C	D
Intersection Delay [s/veh]	22.43				
Intersection LOS	C				

**Intersection Level Of Service Report
Intersection 11: Sequoia/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 16.2
 Level Of Service: C
 Volume to Capacity (v/c): 0.055

Intersection Setup

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	3rd Ave			3rd Ave			Sequoia			Sequoia		
Base Volume Input [veh/h]	57	97	15	10	124	26	23	68	22	23	108	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	97	15	10	124	26	23	68	22	23	108	9
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	26	4	3	33	7	6	18	6	6	29	2
Total Analysis Volume [veh/h]	60	103	16	11	131	28	24	72	23	24	114	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.01	0.00	0.00	0.06	0.14	0.03	0.06	0.23	0.01
d_M, Delay for Movement [s/veh]	7.65	0.00	0.00	7.47	0.00	0.00	15.99	14.14	11.01	16.18	15.10	11.74
Movement LOS	A	A	A	A	A	A	C	B	B	C	C	B
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.13	0.02	0.02	0.02	0.87	0.87	0.87	1.21	1.21	1.21
95th-Percentile Queue Length [ft/ln]	3.31	3.31	3.31	0.57	0.57	0.57	21.74	21.74	21.74	30.24	30.24	30.24
d_A, Approach Delay [s/veh]	2.56			0.48			13.91			15.05		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	7.18											
Intersection LOS	C											

**Intersection Level Of Service Report
Intersection 12: Sequoia/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.035

Intersection Setup

Name	2nd			2nd			Sequoia			Sequoia		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	2nd			2nd			Sequoia			Sequoia		
Base Volume Input [veh/h]	0	49	0	21	67	32	23	74	2	2	94	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	0	21	67	32	23	74	2	2	94	17
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	6	18	8	6	19	1	1	25	4
Total Analysis Volume [veh/h]	0	52	0	22	71	34	24	78	2	2	99	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.08	0.00	0.03	0.11	0.04	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.75	11.10	9.16	11.77	11.66	9.92	7.49	0.00	0.00	7.37	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.26	0.26	0.26	0.65	0.65	0.65	0.05	0.05	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.58	6.58	6.58	16.31	16.31	16.31	1.24	1.24	1.24	0.10	0.10	0.10
d_A, Approach Delay [s/veh]	11.10			11.22			1.73			0.12		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.46											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 13: Dwy 1/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 31.2
 Level Of Service: D
 Volume to Capacity (v/c): 0.230

Intersection Setup

Name	3rd		3rd		Dwy 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		←↑↑		↑	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 1	
Base Volume Input [veh/h]	676	67	33	772	39	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	676	67	33	772	39	19
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	172	17	8	197	10	5
Total Analysis Volume [veh/h]	690	68	34	788	40	19
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.04	0.01	0.23	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	9.42	0.00	31.16	16.32
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.12	0.00	1.01	1.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.12	0.00	25.18	25.18
d_A, Approach Delay [s/veh]	0.00		0.39		26.38	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	1.14					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 14: Dwy 2/3rd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 38.0
 Level Of Service: E
 Volume to Capacity (v/c): 0.391

Intersection Setup

Name	3rd		3rd		Dwy 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑		↙↑↑		↑	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	3rd		3rd		Dwy 2	
Base Volume Input [veh/h]	638	87	52	725	67	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	638	87	52	725	67	60
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	163	22	13	185	17	15
Total Analysis Volume [veh/h]	651	89	53	740	68	61
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.06	0.01	0.39	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	9.45	0.00	37.99	23.05
Movement LOS	A	A	A	A	E	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.20	0.00	2.49	2.49
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.90	0.00	62.28	62.28
d_A, Approach Delay [s/veh]	0.00		0.63		30.93	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.70					
Intersection LOS	E					

**Intersection Level Of Service Report
Intersection 15: Bear Valley/Dwy 3**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 29.3
 Level Of Service: D
 Volume to Capacity (v/c): 0.159

Intersection Setup

Name	Dwy 3		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↻				↻	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 3		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	27	0	2288	2172	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	27	0	2288	2172	28
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	7	0	584	554	7
Total Analysis Volume [veh/h]	0	28	0	2335	2216	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.16	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	29.35	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.55	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	13.81	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	29.35		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 16: Bear Valley/Dwy 4**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 33.6
 Level Of Service: D
 Volume to Capacity (v/c): 0.302

Intersection Setup

Name	Dwy 4		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱		↑↑↑		↑↑↑↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	275.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 4		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	53	0	2288	2148	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	53	0	2288	2148	51
Peak Hour Factor	0.9200	0.9800	0.9200	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	0	584	548	13
Total Analysis Volume [veh/h]	0	54	0	2335	2192	52
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.30	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	33.59	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	1.20	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	30.10	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	33.59		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.39					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 17: Bear Valley/Dwy 5**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 33.7
 Level Of Service: D
 Volume to Capacity (v/c): 0.303

Intersection Setup

Name	Dwy 5		Bear Valley		Bear Valley	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱		↑↑↑		↑↑↑↱	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dwy 5		Bear Valley		Bear Valley	
Base Volume Input [veh/h]	0	53	0	2288	2152	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	53	0	2288	2152	51
Peak Hour Factor	1.0000	0.9800	1.0000	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	0	584	549	13
Total Analysis Volume [veh/h]	0	54	0	2335	2196	52
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.30	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	33.72	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	1.21	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	30.22	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	33.72		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.39					
Intersection LOS	D					

**Intersection Level Of Service Report
Intersection 18: Dwy 6/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 16.3
 Level Of Service: C
 Volume to Capacity (v/c): 0.074

Intersection Setup

Name	2nd		2nd		Dwy 6	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	70.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 6	
Base Volume Input [veh/h]	86	263	357	12	27	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	86	263	357	12	27	113
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Total 15-Minute Volume [veh/h]	22	66	89	3	7	28
Total Analysis Volume [veh/h]	86	263	357	12	27	113
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.07	0.14
d_M, Delay for Movement [s/veh]	8.27	0.00	0.00	0.00	16.34	10.80
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.23	0.00	0.00	0.00	0.79	0.79
95th-Percentile Queue Length [ft/ln]	5.85	0.00	0.00	0.00	19.81	19.81
d_A, Approach Delay [s/veh]	2.04		0.00		11.87	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 19: Dwy 7/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.067

Intersection Setup

Name	2nd		2nd		Dwy 7	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↩ ↑ ↑		↑ ↩		↔	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 7	
Base Volume Input [veh/h]	58	224	347	12	27	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	224	347	12	27	27
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	57	89	3	7	7
Total Analysis Volume [veh/h]	59	229	354	12	28	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.07	0.03
d_M, Delay for Movement [s/veh]	8.19	0.00	0.00	0.00	14.40	10.08
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.34	0.34
95th-Percentile Queue Length [ft/ln]	3.91	0.00	0.00	0.00	8.40	8.40
d_A, Approach Delay [s/veh]	1.68		0.00		12.24	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.65					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 20: Dwy 8/2nd Ave**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 9.5
 Level Of Service: A
 Volume to Capacity (v/c): 0.023

Intersection Setup

Name	2nd		2nd		Dwy 8	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	⇕		⇕⇨		⇨	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		45.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	2nd		2nd		Dwy 8	
Base Volume Input [veh/h]	0	260	344	33	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	260	344	33	0	19
Peak Hour Factor	0.9200	0.9800	0.9800	0.9800	0.9200	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	66	88	8	0	5
Total Analysis Volume [veh/h]	0	265	351	34	0	19
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.51
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.79
d_A, Approach Delay [s/veh]	0.00		0.00		9.51	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.27					
Intersection LOS	A					

MITIGATED PROJECT CONDITIONS

Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.772

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	150	1	531	0	0	0	173	1097	0	0	1281	208
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	1	531	0	0	0	173	1097	0	0	1281	208
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	0	135	0	0	0	44	279	0	0	326	52
Total Analysis Volume [veh/h]	153	1	541	0	0	0	176	1117	0	0	1304	208
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	48	48	0	0	0	0	23	52	0	0	29	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	R
C, Cycle Length [s]	100	100		100	100	100	100
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	40	40		13	50	32	32
g / C, Green / Cycle	0.40	0.40		0.13	0.50	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.10	0.38		0.11	0.24	0.28	0.15
s, saturation flow rate [veh/h]	1603	1431		1603	4584	4584	1431
c, Capacity [veh/h]	636	567		206	2281	1449	452
d1, Uniform Delay [s]	20.16	29.30		42.67	16.69	32.69	27.37
k, delay calibration	0.11	0.36		0.11	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	22.67		9.66	0.75	9.25	3.34
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.24	0.95		0.85	0.49	0.90	0.46
d, Delay for Lane Group [s/veh]	20.35	51.97		52.33	17.44	41.94	30.71
Lane Group LOS	C	D		D	B	D	C
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.32	15.26		4.68	5.39	10.75	4.23
50th-Percentile Queue Length [ft/ln]	58.07	381.40		117.02	134.67	268.79	105.76
95th-Percentile Queue Length [veh/ln]	4.18	21.66		8.23	9.19	16.13	7.60
95th-Percentile Queue Length [ft/ln]	104.52	541.54		205.72	229.83	403.23	190.09

Movement, Approach, & Intersection Results

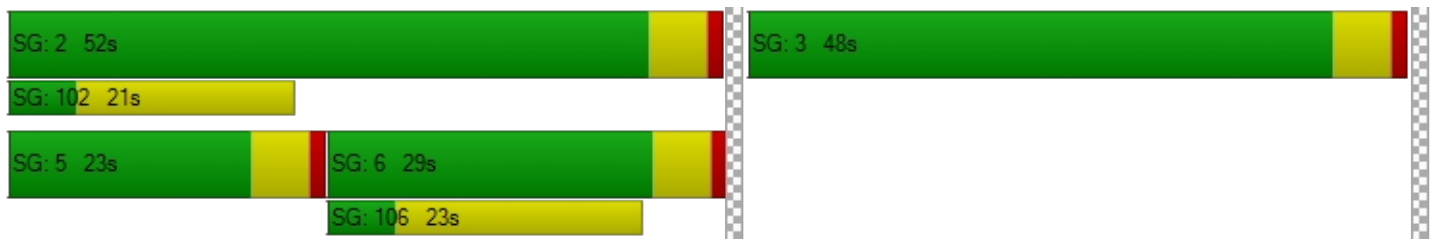
d_M, Delay for Movement [s/veh]	20.35	20.35	51.97	0.00	0.00	0.00	52.33	17.44	0.00	0.00	41.94	30.71
Movement LOS	C	C	D				D	B			D	C
d_A, Approach Delay [s/veh]	44.96			0.00			22.19			40.40		
Approach LOS	D			A			C			D		
d_I, Intersection Delay [s/veh]	34.58											
Intersection LOS	C											
Intersection V/C	0.772											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.248	1.972	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	854	0	934	474
d_b, Bicycle Delay [s]	16.42	50.00	14.20	29.11
I_b,int, Bicycle LOS Score for Intersection	2.706	4.132	2.271	2.391
Bicycle LOS	B	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	104.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.918

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	5	9	93	6	1030	471	2079	23	12	1784	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	5	9	93	6	1030	471	2079	23	12	1784	35
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	26	2	292	134	589	7	3	506	10
Total Analysis Volume [veh/h]	12	6	10	105	7	1168	534	2357	26	14	2023	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	15	68	0	11	64	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.46	0.17	0.49	0.49	0.01	0.42	0.42
s, saturation flow rate [veh/h]	869	1010	2532	3113	3204	1674	1603	3204	1666
c, Capacity [veh/h]	295	352	1560	881	1762	920	27	909	472
d1, Uniform Delay [s]	28.34	31.47	14.46	32.81	20.93	21.04	51.57	37.90	37.90
k, delay calibration	0.11	0.11	0.29	0.11	0.32	0.50	0.11	0.24	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.52	1.96	0.68	4.74	12.78	14.41	224.73	234.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.32	0.75	0.61	0.89	0.89	0.52	1.49	1.50
d, Delay for Lane Group [s/veh]	28.48	31.99	16.42	33.49	25.66	33.82	65.98	262.62	271.89
Lane Group LOS	C	C	B	C	C	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.53	2.41	9.52	5.73	15.89	18.82	0.47	39.45	42.25
50th-Percentile Queue Length [ft/ln]	13.25	60.31	238.08	143.15	397.15	470.43	11.66	986.35	1056.25
95th-Percentile Queue Length [veh/ln]	0.95	4.34	14.58	9.65	22.42	25.93	0.84	60.78	64.75
95th-Percentile Queue Length [ft/ln]	23.84	108.56	364.60	241.25	560.56	648.28	20.99	1519.47	1618.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.48	28.48	28.48	31.99	31.99	16.42	33.49	28.41	33.82	65.98	265.68	271.89
Movement LOS	C	C	C	C	C	B	C	C	C	E	F	F
d_A, Approach Delay [s/veh]	28.48			17.78			29.39			264.45		
Approach LOS	C			B			C			F		
d_I, Intersection Delay [s/veh]	104.50											
Intersection LOS	F											
Intersection V/C	0.918											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	1304
d_b, Bicycle Delay [s]	39.48	39.48	4.14	5.44
I_b,int, Bicycle LOS Score for Intersection	1.606	3.672	3.164	2.702
Bicycle LOS	A	D	C	B

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	72.3
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.975

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	379	2	617	0	0	0	271	1577	0	0	1624	201
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	379	2	617	0	0	0	271	1577	0	0	1624	201
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	97	1	158	0	0	0	69	403	0	0	415	51
Total Analysis Volume [veh/h]	387	2	630	0	0	0	277	1611	0	0	1659	205
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	57	57	0	0	0	0	26	73	0	0	47	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	R
C, Cycle Length [s]	130	130		130	130	130	130
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	52	52		21	68	42	42
g / C, Green / Cycle	0.40	0.40		0.16	0.52	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.24	0.44		0.17	0.35	0.36	0.14
s, saturation flow rate [veh/h]	1603	1431		1603	4584	4584	1431
c, Capacity [veh/h]	636	568		255	2392	1474	460
d1, Uniform Delay [s]	31.23	39.21		54.63	22.92	44.09	34.91
k, delay calibration	0.17	0.50		0.24	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.46	71.66		64.30	1.54	65.72	3.11
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.61	1.11		1.08	0.67	1.13	0.45
d, Delay for Lane Group [s/veh]	32.69	110.87		118.93	24.46	109.81	38.01
Lane Group LOS	C	F		F	C	F	D
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	9.72	28.63		12.77	11.89	24.31	5.46
50th-Percentile Queue Length [ft/ln]	243.09	715.79		319.23	297.23	607.80	136.58
95th-Percentile Queue Length [veh/ln]	14.84	40.23		19.36	17.54	34.90	9.30
95th-Percentile Queue Length [ft/ln]	370.94	1005.66		484.06	438.60	872.47	232.41

Movement, Approach, & Intersection Results

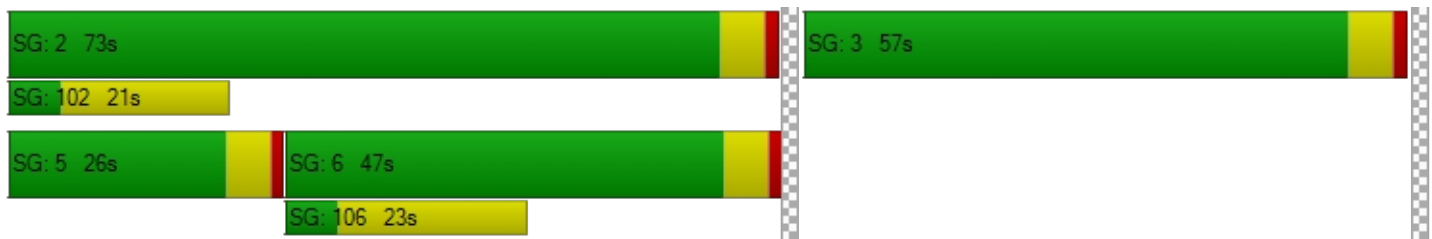
d_M, Delay for Movement [s/veh]	32.69	32.69	110.87	0.00	0.00	0.00	118.93	24.46	0.00	0.00	109.81	38.01
Movement LOS	C	C	F				F	C			F	D
d_A, Approach Delay [s/veh]	81.02			0.00			38.32			101.91		
Approach LOS	F			A			D			F		
d_I, Intersection Delay [s/veh]	72.28											
Intersection LOS	E											
Intersection V/C	0.975											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.31	56.31	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.401	2.048	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	795	0	1042	642
d_b, Bicycle Delay [s]	23.58	65.00	14.93	29.99
I_b,int, Bicycle LOS Score for Intersection	3.241	4.132	2.598	2.585
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	80.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.878

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	21	5	9	86	1	755	695	2633	9	3	1876	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	5	9	86	1	755	695	2633	9	3	1876	39
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	2	23	0	201	185	700	2	1	498	10
Total Analysis Volume [veh/h]	22	5	10	91	1	802	739	2798	10	3	1994	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	9	0	0	9	9	14	82	0	9	77	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	96	96	96	96	96	96	96	96	96
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	23	23	55	27	56	56	0	30	30
g / C, Green / Cycle	0.24	0.24	0.58	0.28	0.59	0.59	0.00	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.04	0.08	0.32	0.24	0.57	0.58	0.00	0.42	0.42
s, saturation flow rate [veh/h]	922	1155	2532	3113	3204	1680	1603	3204	1666
c, Capacity [veh/h]	283	354	1456	864	1879	985	8	1007	523
d1, Uniform Delay [s]	29.62	30.05	12.63	32.67	19.19	19.24	47.34	32.75	32.75
k, delay calibration	0.11	0.11	0.11	0.11	0.36	0.50	0.11	0.19	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	0.38	0.33	2.56	13.49	24.53	24.18	150.95	162.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.26	0.55	0.86	0.98	0.98	0.36	1.33	1.33
d, Delay for Lane Group [s/veh]	29.82	30.44	12.96	35.23	32.68	43.77	71.52	183.69	194.76
Lane Group LOS	C	C	B	D	C	D	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.75	1.77	4.99	7.87	19.51	23.55	0.12	31.84	34.71
50th-Percentile Queue Length [ft/ln]	18.76	44.36	124.79	196.66	487.81	588.83	3.12	796.06	867.81
95th-Percentile Queue Length [veh/ln]	1.35	3.19	8.66	12.47	26.76	31.51	0.22	48.18	52.14
95th-Percentile Queue Length [ft/ln]	33.76	79.85	216.39	311.66	668.91	787.81	5.61	1204.58	1303.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.82	29.82	29.82	30.44	30.44	12.96	35.23	36.47	43.77	71.52	187.33	194.76
Movement LOS	C	C	C	C	C	B	D	D	D	E	F	F
d_A, Approach Delay [s/veh]	29.82			14.75			36.23			187.31		
Approach LOS	C			B			D			F		
d_I, Intersection Delay [s/veh]	80.50											
Intersection LOS	F											
Intersection V/C	0.878											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	100	1534	1434
d_b, Bicycle Delay [s]	45.13	45.13	2.71	4.00
I_b,int, Bicycle LOS Score for Intersection	1.621	3.035	3.510	2.681
Bicycle LOS	A	C	D	B

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	45.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.839

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	162	1	577	0	0	0	189	1185	0	0	1386	224
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	162	1	577	0	0	0	189	1185	0	0	1386	224
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	0	147	0	0	0	48	302	0	0	353	56
Total Analysis Volume [veh/h]	165	1	588	0	0	0	192	1207	0	0	1411	224
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	51	51	0	0	0	0	20	59	0	0	39	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	R
C, Cycle Length [s]	110	110		110	110	110	110
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	46	46		15	54	34	34
g / C, Green / Cycle	0.41	0.41		0.13	0.49	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.10	0.41		0.12	0.26	0.31	0.16
s, saturation flow rate [veh/h]	1603	1431		1603	4584	4584	1431
c, Capacity [veh/h]	664	593		215	2243	1409	440
d1, Uniform Delay [s]	21.05	32.04		46.87	19.46	38.09	31.29
k, delay calibration	0.11	0.44		0.11	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	32.81		12.26	0.93	24.32	4.17
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.99		0.89	0.54	1.00	0.51
d, Delay for Lane Group [s/veh]	21.24	64.85		59.14	20.39	62.42	35.46
Lane Group LOS	C	E		E	C	F	D
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.73	19.92		5.78	6.90	15.27	5.25
50th-Percentile Queue Length [ft/ln]	68.21	497.97		144.40	172.52	381.75	131.20
95th-Percentile Queue Length [veh/ln]	4.91	27.24		9.72	11.21	21.70	9.01
95th-Percentile Queue Length [ft/ln]	122.79	680.95		242.94	280.23	542.48	225.13

Movement, Approach, & Intersection Results

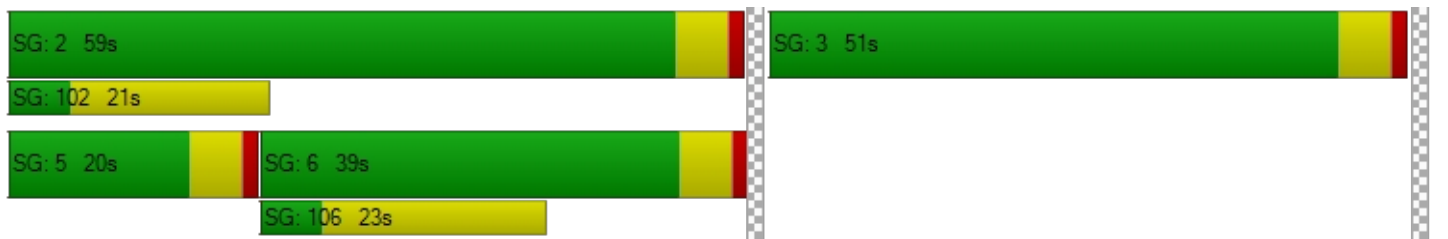
d_M, Delay for Movement [s/veh]	21.24	21.24	64.85	0.00	0.00	0.00	59.14	20.39	0.00	0.00	62.42	35.46
Movement LOS	C	C	E				E	C			F	D
d_A, Approach Delay [s/veh]	55.25			0.00			25.71			58.72		
Approach LOS	E			A			C			E		
d_I, Intersection Delay [s/veh]	45.84											
Intersection LOS	D											
Intersection V/C	0.839											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.278	1.997	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	831	0	976	613
d_b, Bicycle Delay [s]	18.79	55.00	14.41	26.46
I_b,int, Bicycle LOS Score for Intersection	2.804	4.132	2.329	2.459
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	126.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.977

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+ + +			+ + +		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	12	5	10	101	6	1112	507	2249	25	13	1930	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	5	10	101	6	1112	507	2249	25	13	1930	38
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	29	2	315	144	637	7	4	547	11
Total Analysis Volume [veh/h]	14	6	11	115	7	1261	575	2550	28	15	2188	43
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	14	68	0	11	65	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.04	0.12	0.50	0.18	0.53	0.53	0.01	0.46	0.46
s, saturation flow rate [veh/h]	813	1010	2532	3113	3204	1674	1603	3204	1666
c, Capacity [veh/h]	280	352	1560	881	1759	919	29	909	472
d1, Uniform Delay [s]	28.52	31.80	15.52	33.35	22.79	22.93	51.52	37.90	37.90
k, delay calibration	0.11	0.11	0.34	0.11	0.37	0.50	0.11	0.29	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.59	3.15	0.82	11.41	22.60	14.15	279.20	287.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.35	0.81	0.65	0.96	0.97	0.53	1.61	1.62
d, Delay for Lane Group [s/veh]	28.70	32.38	18.67	34.17	34.20	45.53	65.67	317.11	325.87
Lane Group LOS	C	C	B	C	C	D	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.59	2.66	11.23	6.28	20.11	24.08	0.50	46.33	49.34
50th-Percentile Queue Length [ft/ln]	14.72	66.41	280.63	156.90	502.84	601.98	12.39	1158.25	1233.46
95th-Percentile Queue Length [veh/ln]	1.06	4.78	16.72	10.38	27.47	32.13	0.89	72.09	76.46
95th-Percentile Queue Length [ft/ln]	26.49	119.54	418.00	259.61	686.72	803.17	22.31	1802.30	1911.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.70	28.70	28.70	32.38	32.38	18.67	34.17	38.02	45.53	65.67	320.00	325.87
Movement LOS	C	C	C	C	C	B	C	D	D	E	F	F
d_A, Approach Delay [s/veh]	28.70			19.88			37.38			318.41		
Approach LOS	C			B			D			F		
d_I, Intersection Delay [s/veh]	126.43											
Intersection LOS	F											
Intersection V/C	0.977											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	1327
d_b, Bicycle Delay [s]	39.48	39.48	4.14	5.10
I_b,int, Bicycle LOS Score for Intersection	1.611	3.842	3.294	2.795
Bicycle LOS	A	D	C	C

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	93.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.060

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	410	2	674	0	0	0	295	1704	0	0	1756	215
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	410	2	674	0	0	0	295	1704	0	0	1756	215
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	105	1	172	0	0	0	75	435	0	0	448	55
Total Analysis Volume [veh/h]	419	2	688	0	0	0	301	1741	0	0	1794	220
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	57	57	0	0	0	0	26	73	0	0	47	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	R
C, Cycle Length [s]	130	130		130	130	130	130
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	52	52		21	68	42	42
g / C, Green / Cycle	0.40	0.40		0.16	0.52	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.26	0.48		0.19	0.38	0.39	0.15
s, saturation flow rate [veh/h]	1603	1431		1603	4584	4584	1431
c, Capacity [veh/h]	636	568		255	2391	1474	460
d1, Uniform Delay [s]	32.06	39.20		54.63	23.98	44.10	35.36
k, delay calibration	0.20	0.50		0.29	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.21	110.92		101.75	1.98	104.19	3.54
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	1.21		1.18	0.73	1.22	0.48
d, Delay for Lane Group [s/veh]	34.27	150.12		156.38	25.97	148.29	38.89
Lane Group LOS	C	F		F	C	F	D
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	10.91	34.84		15.43	13.49	29.55	5.96
50th-Percentile Queue Length [ft/ln]	272.75	870.89		385.64	337.33	738.74	148.92
95th-Percentile Queue Length [veh/ln]	16.33	50.51		23.57	19.52	43.30	9.96
95th-Percentile Queue Length [ft/ln]	408.17	1262.74		589.36	487.94	1082.53	248.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.27	34.27	150.12	0.00	0.00	0.00	156.38	25.97	0.00	0.00	148.29	38.89
Movement LOS	C	C	F				F	C			F	D
d_A, Approach Delay [s/veh]	106.14			0.00			45.19			136.34		
Approach LOS	F			A			D			F		
d_I, Intersection Delay [s/veh]	93.82											
Intersection LOS	F											
Intersection V/C	1.060											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.31	56.31	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.440	2.074	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	795	0	1042	642
d_b, Bicycle Delay [s]	23.58	65.00	14.93	29.99
I_b,int, Bicycle LOS Score for Intersection	3.389	4.132	2.683	2.667
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	117.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.946

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	23	5	10	93	1	814	749	2848	10	3	2029	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	5	10	93	1	814	749	2848	10	3	2029	42
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	3	25	0	216	199	757	3	1	539	11
Total Analysis Volume [veh/h]	24	5	11	99	1	865	796	3027	11	3	2156	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	11	68	0	11	68	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	25	25	59	29	58	58	0	30	30
g / C, Green / Cycle	0.25	0.25	0.59	0.29	0.58	0.58	0.00	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.34	0.26	0.62	0.62	0.00	0.45	0.45
s, saturation flow rate [veh/h]	904	1148	2532	3113	3204	1680	1603	3204	1665
c, Capacity [veh/h]	287	363	1500	890	1865	978	8	965	502
d1, Uniform Delay [s]	30.86	30.68	12.57	34.11	20.81	20.81	49.37	34.79	34.79
k, delay calibration	0.11	0.11	0.12	0.11	0.44	0.50	0.11	0.25	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	0.41	0.38	3.45	40.77	49.46	24.90	227.28	236.65
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.28	0.58	0.89	1.07	1.07	0.36	1.50	1.50
d, Delay for Lane Group [s/veh]	31.08	31.09	12.95	37.57	61.58	70.28	74.27	262.07	271.44
Lane Group LOS	C	C	B	D	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.85	2.01	5.59	9.09	28.37	32.11	0.13	41.37	44.31
50th-Percentile Queue Length [ft/ln]	21.17	50.16	139.81	227.15	709.33	802.75	3.23	1034.18	1107.66
95th-Percentile Queue Length [veh/ln]	1.52	3.61	9.47	14.03	39.15	43.78	0.23	63.79	68.00
95th-Percentile Queue Length [ft/ln]	38.10	90.29	236.77	350.74	978.78	1094.44	5.81	1594.75	1700.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.08	31.08	31.08	31.09	31.09	12.95	37.57	64.55	70.28	74.27	265.15	271.44
Movement LOS	C	C	C	C	C	B	D	F	E	E	F	F
d_A, Approach Delay [s/veh]	31.08			14.83			58.97			265.02		
Approach LOS	C			B			E			F		
d_I, Intersection Delay [s/veh]	117.24											
Intersection LOS	F											
Intersection V/C	0.946											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	1393
d_b, Bicycle Delay [s]	39.48	39.48	4.14	4.14
I_b,int, Bicycle LOS Score for Intersection	1.626	3.152	3.668	2.772
Bicycle LOS	A	C	D	C

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	68.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.949

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	185	1	654	0	0	0	213	1340	0	0	1565	248
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	185	1	654	0	0	0	213	1340	0	0	1565	248
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	1.0000	1.0000	0.9820	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	0	166	0	0	0	54	341	0	0	398	62
Total Analysis Volume [veh/h]	188	1	666	0	0	0	217	1365	0	0	1594	248
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	56	56	0	0	0	0	21	64	0	0	43	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	R
C, Cycle Length [s]	120	120		120	120	120	120
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	51	51		16	59	38	38
g / C, Green / Cycle	0.42	0.42		0.13	0.49	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.12	0.47		0.14	0.30	0.35	0.17
s, saturation flow rate [veh/h]	1603	1431		1603	4584	4584	1431
c, Capacity [veh/h]	676	603		210	2248	1445	451
d1, Uniform Delay [s]	22.77	34.72		52.14	22.19	41.08	34.04
k, delay calibration	0.11	0.50		0.11	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	68.81		37.92	1.23	57.23	4.77
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	1.10		1.03	0.61	1.10	0.55
d, Delay for Lane Group [s/veh]	23.00	103.53		90.05	23.42	98.31	38.80
Lane Group LOS	C	F		F	C	F	D
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.46	28.11		8.40	9.11	21.37	6.45
50th-Percentile Queue Length [ft/ln]	86.38	702.86		210.05	227.82	534.37	161.22
95th-Percentile Queue Length [veh/ln]	6.22	39.52		13.35	14.06	30.80	10.61
95th-Percentile Queue Length [ft/ln]	155.48	987.89		333.63	351.59	769.88	265.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.00	23.00	103.53	0.00	0.00	0.00	90.05	23.42	0.00	0.00	98.31	38.80
Movement LOS	C	C	F				F	C			F	D
d_A, Approach Delay [s/veh]	85.73			0.00			32.56			90.30		
Approach LOS	F			A			C			F		
d_I, Intersection Delay [s/veh]	68.04											
Intersection LOS	E											
Intersection V/C	0.949											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.326	2.033	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	845	0	978	628
d_b, Bicycle Delay [s]	20.01	60.00	15.66	28.22
I_b,int, Bicycle LOS Score for Intersection	2.970	4.132	2.430	2.573
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	30.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.694

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	200.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	92	244	111	141	168	74	63	1885	71	80	1651	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	244	111	141	168	74	63	1885	71	80	1651	65
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	65	29	37	44	20	17	499	19	21	437	17
Total Analysis Volume [veh/h]	97	258	117	149	178	78	67	1995	75	85	1747	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	29	41	0	25	45	0	13	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	17	17	17	19	19	19	6	56	56	7	57	57
g / C, Green / Cycle	0.16	0.16	0.16	0.17	0.17	0.17	0.05	0.51	0.51	0.07	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.07	0.15	0.08	0.12	0.11	0.05	0.04	0.44	0.05	0.05	0.38	0.05
s, saturation flow rate [veh/h]	1355	1683	1431	1241	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	226	265	225	251	291	247	84	2321	724	105	2380	743
d1, Uniform Delay [s]	41.89	46.14	42.54	42.31	42.09	39.81	51.53	23.74	14.15	50.74	20.55	13.36
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering 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
d2, Incremental Delay [s]	1.29	20.29	1.86	2.25	2.09	0.72	15.39	4.43	0.29	13.70	2.05	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.43	0.97	0.52	0.59	0.61	0.32	0.80	0.86	0.10	0.81	0.73	0.09
d, Delay for Lane Group [s/veh]	43.18	66.42	44.40	44.55	44.18	40.53	66.92	28.17	14.44	64.44	22.60	13.61
Lane Group LOS	D	E	D	D	D	D	E	C	B	E	C	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.37	8.25	2.94	3.76	4.54	1.86	2.12	14.24	0.95	2.62	10.71	0.84
50th-Percentile Queue Length [ft/ln]	59.29	206.31	73.58	94.08	113.47	46.52	52.98	356.12	23.78	65.56	267.63	21.03
95th-Percentile Queue Length [veh/ln]	4.27	12.96	5.30	6.77	8.03	3.35	3.81	20.43	1.71	4.72	16.07	1.51
95th-Percentile Queue Length [ft/ln]	106.72	324.09	132.44	169.34	200.82	83.74	95.37	510.87	42.81	118.00	401.77	37.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.18	66.42	44.40	44.55	44.18	40.53	66.92	28.17	14.44	64.44	22.60	13.61
Movement LOS	D	E	D	D	D	D	E	C	B	E	C	B
d_A, Approach Delay [s/veh]	56.19			43.61			28.90			24.15		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	30.90											
Intersection LOS	C											
Intersection V/C	0.694											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.37	46.37	46.37	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.548	2.519	3.571	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	315	642	715	496
d_b, Bicycle Delay [s]	39.06	25.36	22.72	31.09
I_b,int, Bicycle LOS Score for Intersection	2.338	2.228	2.735	2.605
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	176.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.856

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+ + +			+ + +		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	14	6	11	115	7	1262	572	2557	28	15	2194	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	6	11	115	7	1262	572	2557	28	15	2194	43
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	3	33	2	358	162	725	8	4	622	12
Total Analysis Volume [veh/h]	16	7	12	130	8	1431	649	2899	32	17	2488	49
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	14	68	0	11	65	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	106	106	106	106	106	106	106	106	106
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	30	30	65	30	58	58	2	30	30
g / C, Green / Cycle	0.28	0.28	0.62	0.28	0.55	0.55	0.02	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.05	0.14	0.57	0.21	0.60	0.60	0.01	0.52	0.52
s, saturation flow rate [veh/h]	716	978	2532	3113	3204	1674	1603	3204	1666
c, Capacity [veh/h]	252	343	1561	881	1753	916	31	908	472
d1, Uniform Delay [s]	28.88	32.57	17.91	34.35	23.96	23.96	51.41	37.91	37.91
k, delay calibration	0.11	0.11	0.42	0.11	0.46	0.50	0.11	0.36	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	0.76	8.68	1.22	52.25	61.81	13.79	378.39	387.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.40	0.92	0.74	1.10	1.10	0.54	1.83	1.84
d, Delay for Lane Group [s/veh]	29.13	33.33	26.59	35.57	76.21	85.77	65.21	416.30	425.89
Lane Group LOS	C	C	C	D	F	F	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.67	3.08	15.69	7.33	31.57	35.41	0.55	58.84	62.46
50th-Percentile Queue Length [ft/ln]	16.71	77.09	392.31	183.23	789.32	885.28	13.86	1470.92	1561.38
95th-Percentile Queue Length [veh/ln]	1.20	5.55	22.19	11.77	43.85	48.80	1.00	92.69	98.10
95th-Percentile Queue Length [ft/ln]	30.09	138.77	554.73	294.23	1096.18	1219.97	24.95	2317.26	2452.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.13	29.13	29.13	33.33	33.33	26.59	35.57	79.43	85.77	65.21	419.47	425.89
Movement LOS	C	C	C	C	C	C	D	F	F	E	F	F
d_A, Approach Delay [s/veh]	29.13			27.18			71.54			417.24		
Approach LOS	C			C			E			F		
d_I, Intersection Delay [s/veh]	176.45											
Intersection LOS	F											
Intersection V/C	0.856											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	127			127			1393			1327		
d_b, Bicycle Delay [s]	39.48			39.48			4.14			5.10		
I_b,int, Bicycle LOS Score for Intersection	1.617			4.148			3.529			2.964		
Bicycle LOS	A			D			D			C		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Bear Valley/I-15 NB Ramp

Control Type:	Signalized	Delay (sec / veh):	130.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.198

Intersection Setup

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	470.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes						Yes			Yes		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	I-15 NB Ramp			I-15 NB Ramp			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	467	2	760	0	0	0	334	1928	0	0	1987	239
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	467	2	760	0	0	0	334	1928	0	0	1987	239
Peak Hour Factor	0.9790	0.9790	0.9790	0.9820	0.9820	0.9820	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	119	1	194	0	0	0	85	492	0	0	507	61
Total Analysis Volume [veh/h]	477	2	776	0	0	0	341	1969	0	0	2030	244
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	3	3	0	0	0	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	5	5	0	0	0	0	5	5	0	0	5	0
Maximum Green [s]	30	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	4.3	4.3	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	4.3	0.0
All red [s]	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	61	61	0	0	0	0	28	79	0	0	51	0
Vehicle Extension [s]	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	10	10	0	0	0	0	0	16	0	0	18	0
Delayed Vehicle Green [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
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	3.3	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	3.3	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	R
C, Cycle Length [s]	140	140		140	140	140	140
L, Total Lost Time per Cycle [s]	5.30	5.30		5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30		3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	56	56		23	74	46	46
g / C, Green / Cycle	0.40	0.40		0.16	0.53	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.30	0.54		0.21	0.43	0.44	0.17
s, saturation flow rate [veh/h]	1603	1431		1603	4584	4584	1431
c, Capacity [veh/h]	636	568		260	2418	1501	468
d1, Uniform Delay [s]	36.31	42.21		58.63	27.39	47.07	38.17
k, delay calibration	0.27	0.50		0.42	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.50	176.24		161.25	3.15	163.16	4.10
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	1.37		1.31	0.81	1.35	0.52
d, Delay for Lane Group [s/veh]	40.82	218.46		219.88	30.54	210.23	42.28
Lane Group LOS	D	F		F	C	F	D
Critical Lane Group	No	Yes		Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	14.52	46.70		20.72	18.03	39.66	7.25
50th-Percentile Queue Length [ft/ln]	363.10	1167.55		518.08	450.65	991.40	181.28
95th-Percentile Queue Length [veh/ln]	20.77	70.01		31.75	24.99	59.36	11.67
95th-Percentile Queue Length [ft/ln]	519.35	1750.27		793.74	624.72	1483.94	291.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.82	40.82	218.46	0.00	0.00	0.00	219.88	30.54	0.00	0.00	210.23	42.28
Movement LOS	D	D	F				F	C			F	D
d_A, Approach Delay [s/veh]	150.66			0.00			58.49			192.21		
Approach LOS	F			A			E			F		
d_I, Intersection Delay [s/veh]	130.38											
Intersection LOS	F											
Intersection V/C	1.198											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	61.29	61.29	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.506	2.119	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	796	0	1053	653
d_b, Bicycle Delay [s]	25.38	70.00	15.70	31.76
I_b,int, Bicycle LOS Score for Intersection	3.630	4.132	2.830	2.810
Bicycle LOS	D	D	C	C

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 3: Bear Valley/7th Ave**

Control Type:	Signalized	Delay (sec / veh):	53.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.846

Intersection Setup

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	385.00	100.00	275.00	250.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			40.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	Yes			Yes			Yes			Yes		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	7th Ave			7th Ave			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	129	302	125	183	363	113	115	2098	140	142	1954	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	302	125	183	363	113	115	2098	140	142	1954	157
Peak Hour Factor	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840	0.9840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	77	32	46	92	29	29	533	36	36	496	40
Total Analysis Volume [veh/h]	131	307	127	186	369	115	117	2132	142	144	1986	160
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	5	0	5	5	0	5	5	0	5	5	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	32	0	22	43	0	17	67	0	19	69	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	30	0	0	21	0	0	22	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0	3.7	3.7	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	3.70	0.00	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
g_i, Effective Green Time [s]	26	26	26	34	34	34	11	65	65	13	67	67
g / C, Green / Cycle	0.19	0.19	0.19	0.24	0.24	0.24	0.08	0.46	0.46	0.10	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.24	0.18	0.09	0.19	0.22	0.08	0.07	0.47	0.10	0.09	0.43	0.11
s, saturation flow rate [veh/h]	541	1683	1431	967	1683	1431	1603	4584	1431	1603	4584	1431
c, Capacity [veh/h]	176	316	269	263	407	346	130	2123	663	152	2189	683
d1, Uniform Delay [s]	53.04	56.47	50.67	54.11	51.53	43.75	63.80	37.58	22.40	62.98	33.73	21.53
k, delay calibration	0.50	0.20	0.11	0.34	0.30	0.11	0.11	0.50	0.50	0.11	0.50	0.50
l, Upstream Filtering 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
d2, Incremental Delay [s]	24.56	25.84	1.29	10.55	18.01	0.56	19.35	20.53	0.74	22.74	6.91	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression 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

Lane Group Results

X, volume / capacity	0.74	0.97	0.47	0.71	0.91	0.33	0.90	1.00	0.21	0.94	0.91	0.23
d, Delay for Lane Group [s/veh]	77.59	82.31	51.96	64.66	69.53	44.30	83.15	58.11	23.14	85.71	40.65	22.33
Lane Group LOS	E	F	D	E	E	D	F	F	C	F	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.20	12.79	4.00	6.27	14.40	3.32	4.73	26.55	2.83	5.93	20.70	3.13
50th-Percentile Queue Length [ft/ln]	129.93	319.76	100.03	156.84	360.00	83.12	118.24	663.87	70.73	148.27	517.61	78.25
95th-Percentile Queue Length [veh/ln]	8.94	18.66	7.20	10.38	20.62	5.98	8.30	35.12	5.09	9.92	28.17	5.63
95th-Percentile Queue Length [ft/ln]	223.40	466.39	180.06	259.53	515.58	149.62	207.40	878.03	127.31	248.12	704.17	140.85

Movement, Approach, & Intersection Results

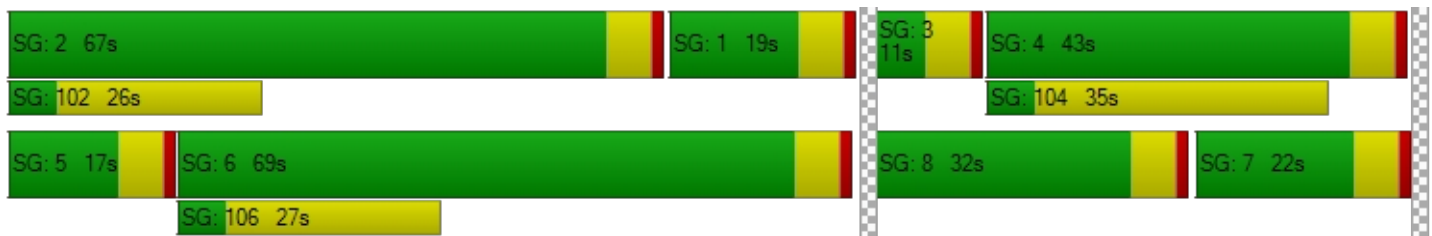
d_M, Delay for Movement [s/veh]	77.59	82.31	51.96	64.66	69.53	44.30	83.15	58.11	23.14	85.71	40.65	22.33
Movement LOS	E	F	D	E	E	D	F	F	C	F	D	C
d_A, Approach Delay [s/veh]	74.39			63.85			57.26			42.20		
Approach LOS	E			E			E			D		
d_I, Intersection Delay [s/veh]	53.81											
Intersection LOS	D											
Intersection V/C	0.846											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	61.29	61.29	61.29	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.679	2.648	3.710	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	376	533	876	904
d_b, Bicycle Delay [s]	46.17	37.67	22.12	21.01
I_b,int, Bicycle LOS Score for Intersection	2.492	2.665	2.875	2.819
Bicycle LOS	B	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 6: Bear Valley/Ridgecrest**

Control Type:	Signalized	Delay (sec / veh):	193.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.073

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	26	6	11	106	1	920	847	3239	11	4	2306	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	6	11	106	1	920	847	3239	11	4	2306	48
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	2	3	28	0	244	225	861	3	1	613	13
Total Analysis Volume [veh/h]	28	6	12	113	1	978	900	3442	12	4	2451	51
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	4.3	0.0	0.0	4.3	4.3	4.3	4.3	0.0	4.3	4.3	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	11	14	68	0	11	65	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Delayed Vehicle Green [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
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.3	0.0	0.0	3.3	3.3	3.3	3.3	0.0	3.3	3.3	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.30	3.30	0.00	3.30	3.30	3.30	3.30	3.30	3.30
g_i, Effective Green Time [s]	29	29	64	30	59	59	1	30	30
g / C, Green / Cycle	0.27	0.27	0.61	0.29	0.57	0.57	0.01	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.39	0.29	0.71	0.71	0.00	0.51	0.52
s, saturation flow rate [veh/h]	886	1143	2532	3113	3204	1680	1603	3204	1666
c, Capacity [veh/h]	298	382	1548	892	1818	953	10	920	478
d1, Uniform Delay [s]	32.11	30.87	12.85	37.29	22.62	22.62	51.73	37.26	37.26
k, delay calibration	0.11	0.11	0.19	0.11	0.50	0.50	0.11	0.35	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	0.43	0.76	16.31	115.49	120.49	23.15	357.03	366.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.30	0.63	1.01	1.25	1.25	0.40	1.79	1.80
d, Delay for Lane Group [s/veh]	32.35	31.31	13.61	53.60	138.11	143.11	74.88	394.29	403.85
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.02	2.37	6.85	12.74	48.03	51.69	0.17	56.67	60.18
50th-Percentile Queue Length [ft/ln]	25.43	59.32	171.27	318.53	1200.85	1292.22	4.16	1416.80	1504.51
95th-Percentile Queue Length [veh/ln]	1.83	4.27	11.14	18.70	69.86	74.82	0.30	89.12	94.35
95th-Percentile Queue Length [ft/ln]	45.78	106.78	278.58	467.50	1746.54	1870.38	7.50	2227.95	2358.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.35	32.35	32.35	31.31	31.31	13.61	53.60	139.82	143.11	74.88	397.44	403.85
Movement LOS	C	C	C	C	C	B	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	32.35			15.45			122.01			397.06		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	193.12											
Intersection LOS	F											
Intersection V/C	1.073											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	127	127	1393	1327
d_b, Bicycle Delay [s]	39.48	39.48	4.14	5.10
I_b,int, Bicycle LOS Score for Intersection	1.636	3.361	3.954	2.938
Bicycle LOS	A	C	D	C

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX D

SIGNAL WARRANT ANALYSIS SHEETS

PEAK HOUR WARRANTS

EP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **PM**

Major Street: **Bear Valley**

Minor Street: **3rd**

Total of Both Approaches (VPH): **4241**

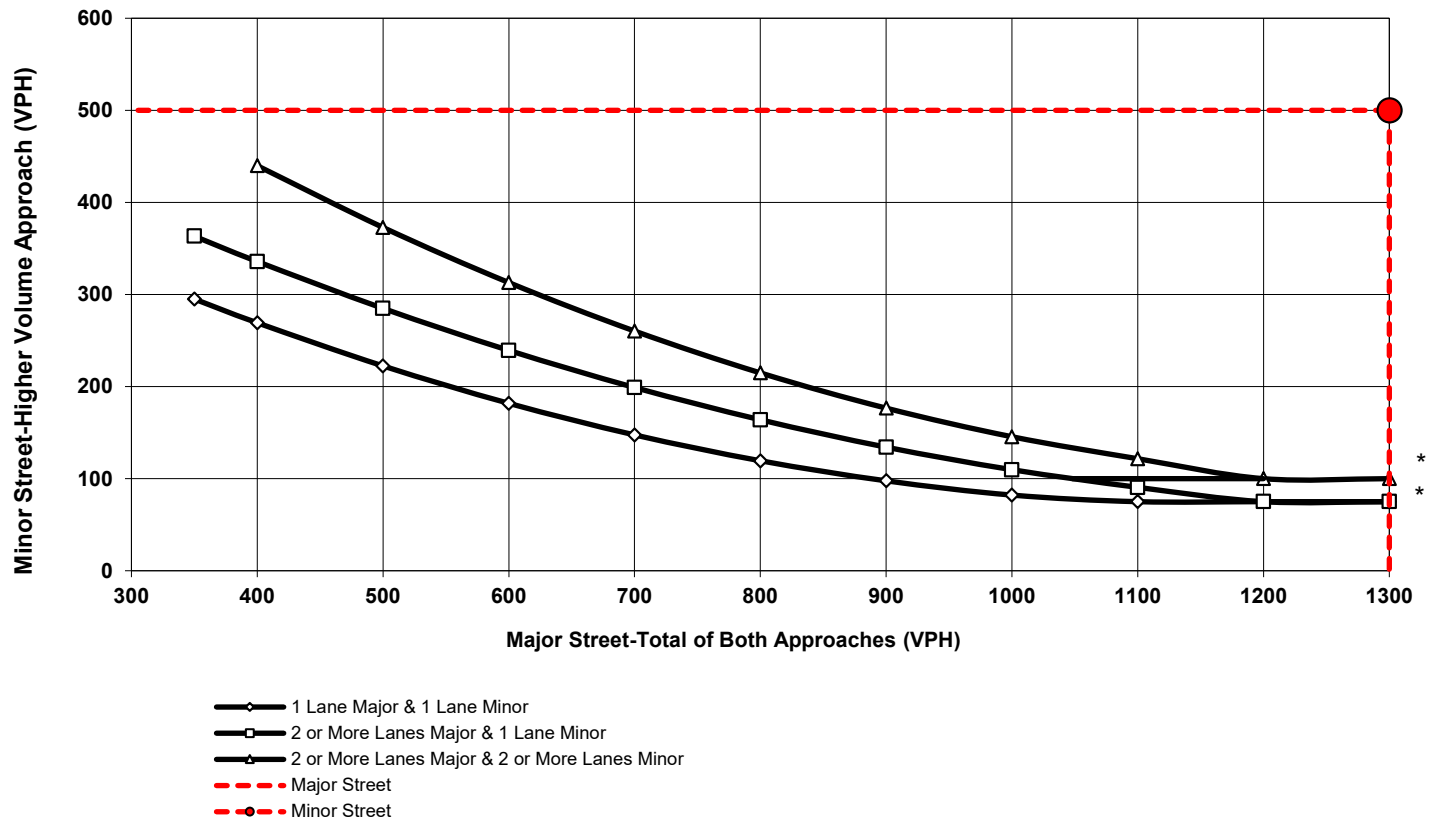
Higher Volume Approach (VPH): **696**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
Bear Valley Rd/3rd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **AM**

Major Street: **Bear Valley**

Minor Street: **3rd**

Total of Both Approaches (VPH): **3388**

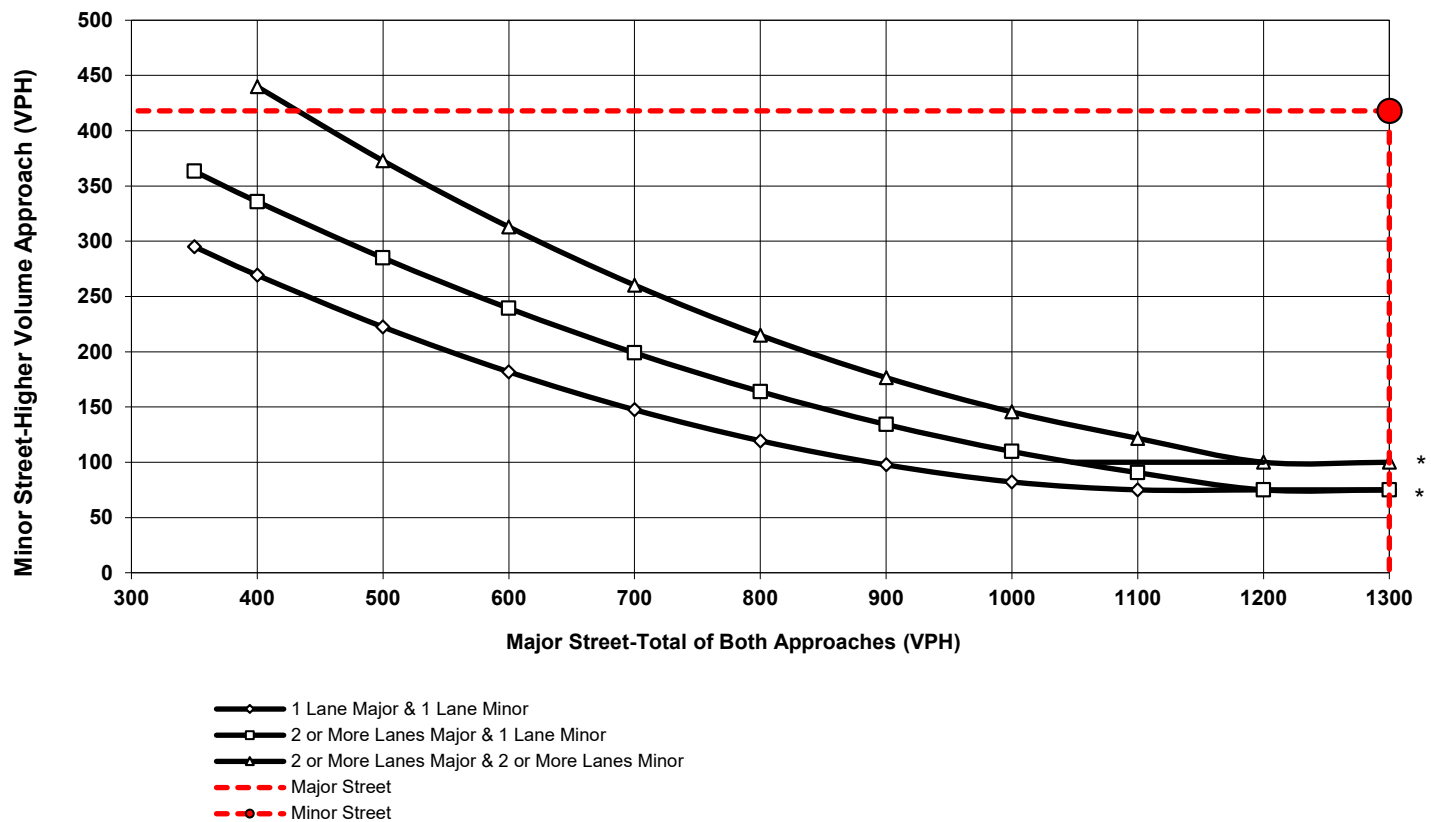
Higher Volume Approach (VPH): **418**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
Bear Valley Rd/3rd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **AM**

Major Street: **Bear Valley**

Minor Street: **3rd**

Total of Both Approaches (VPH): **3362**

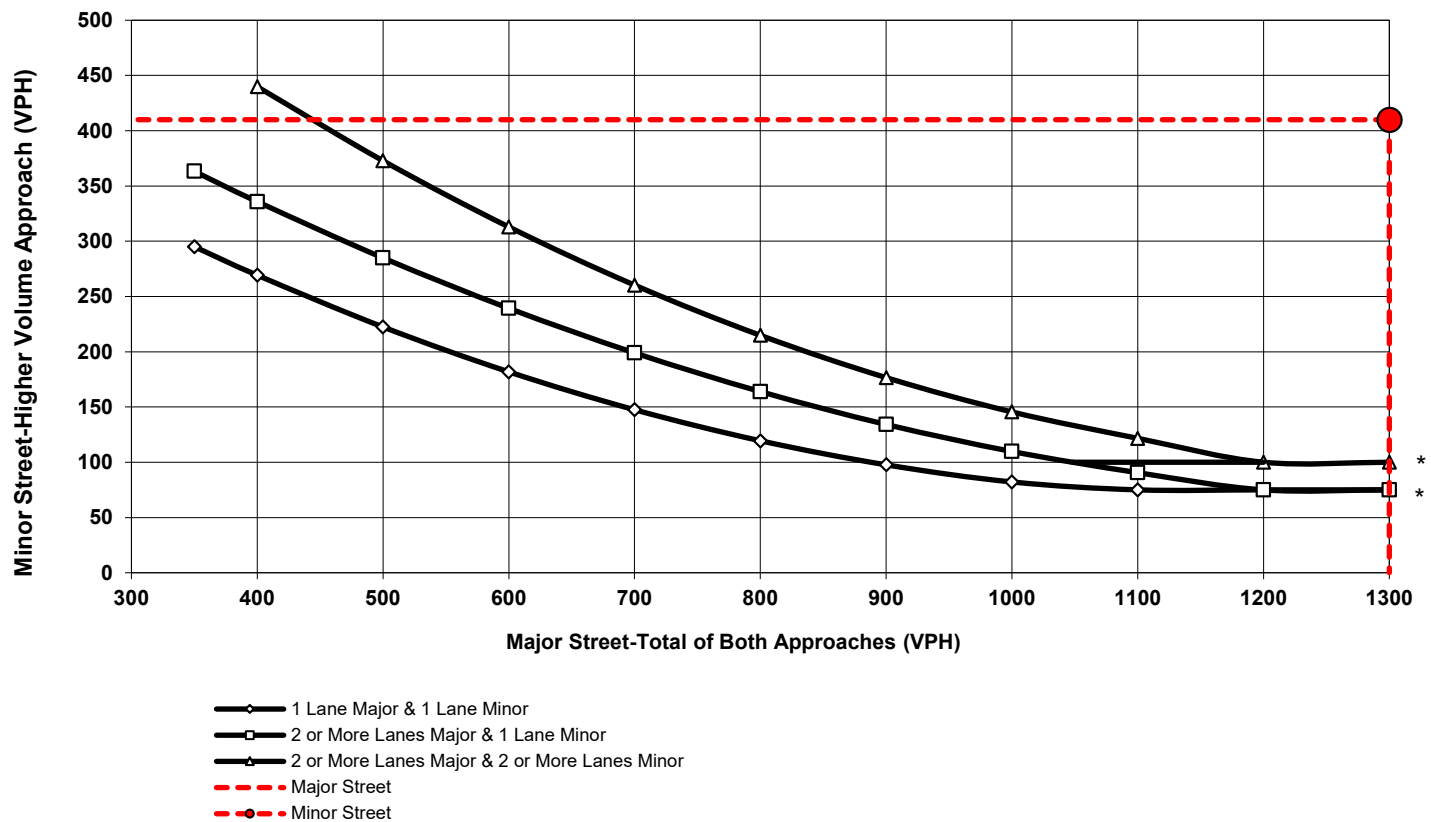
Higher Volume Approach (VPH): **410**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2020 WP Conditions
AM Peak Hour Volume Warrant
Bear Valley Rd/3rd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **PM**

Major Street: **Bear Valley**

Minor Street: **3rd**

Total of Both Approaches (VPH): **4213**

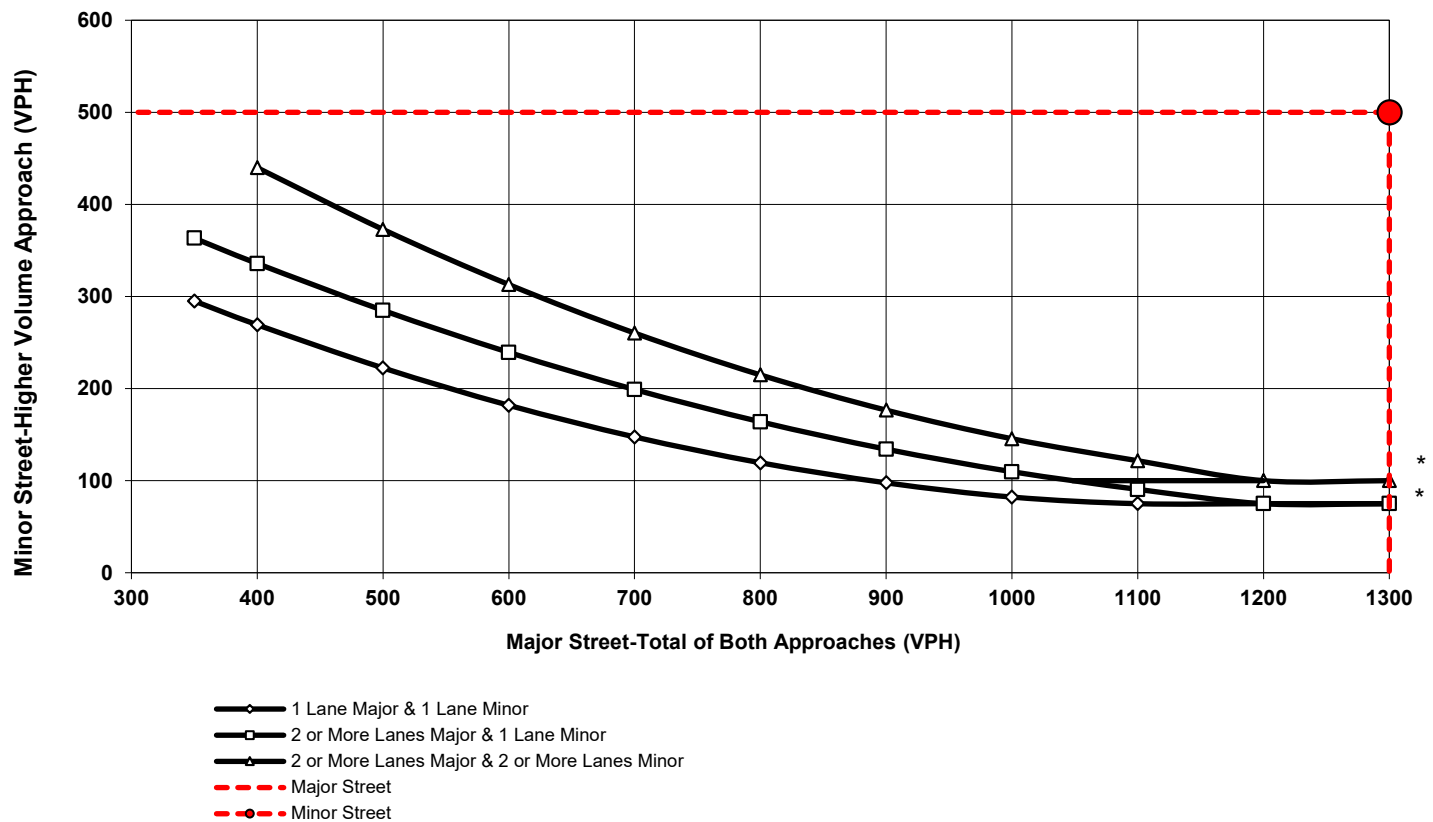
Higher Volume Approach (VPH): **644**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2020 WP Conditions
PM Peak Hour Volume Warrant
Bear Valley Rd/3rd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **AM**

Major Street: **Bear Valley**

Minor Street: **3rd**

Total of Both Approaches (VPH): **4373**

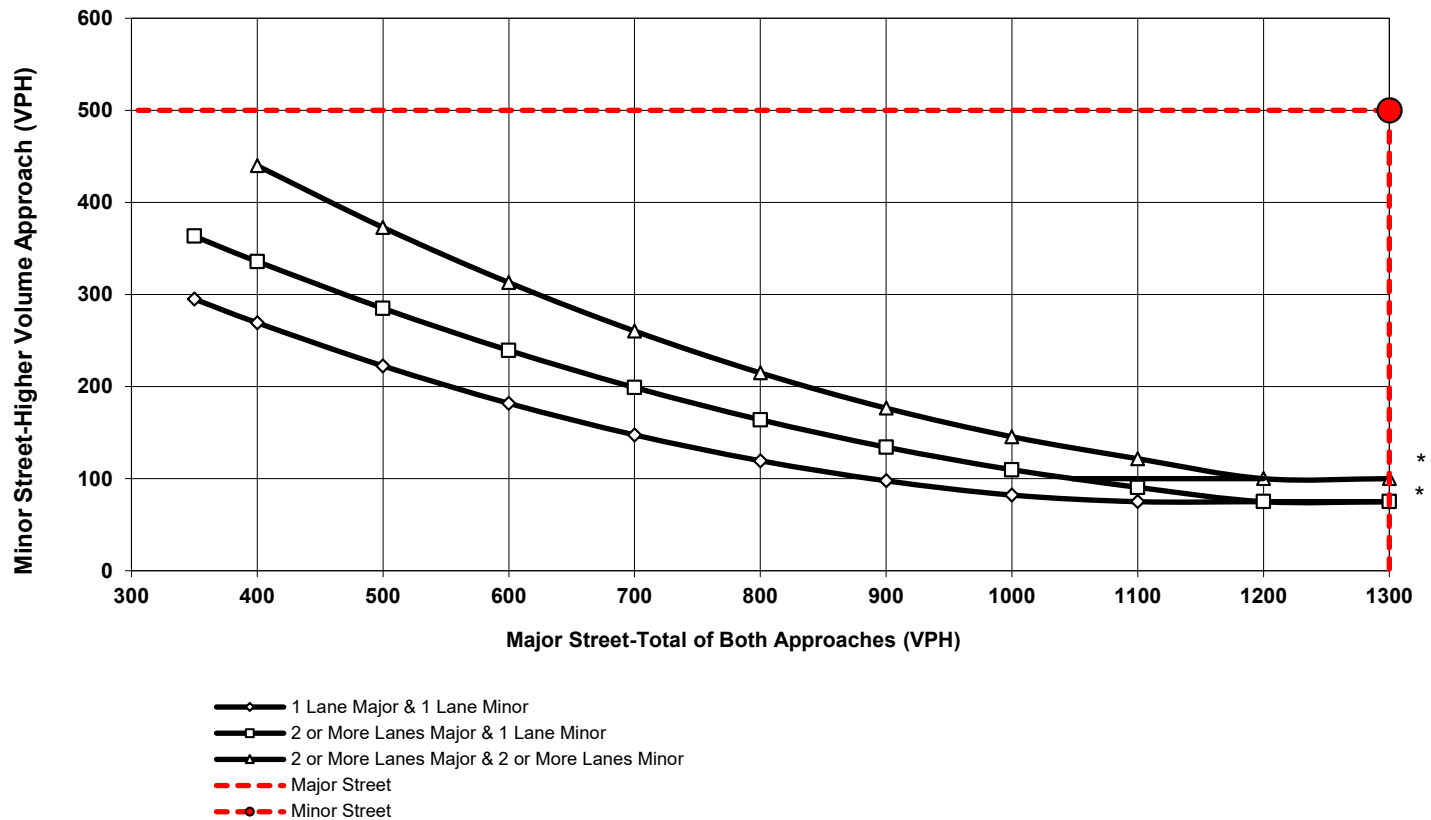
Higher Volume Approach (VPH): **532**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2030 WP Conditions
AM Peak Hour Volume Warrant
Bear Valley Rd/3rd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: PM

Major Street: Bear Valley

Minor Street: 3rd

Total of Both Approaches (VPH): **5480**

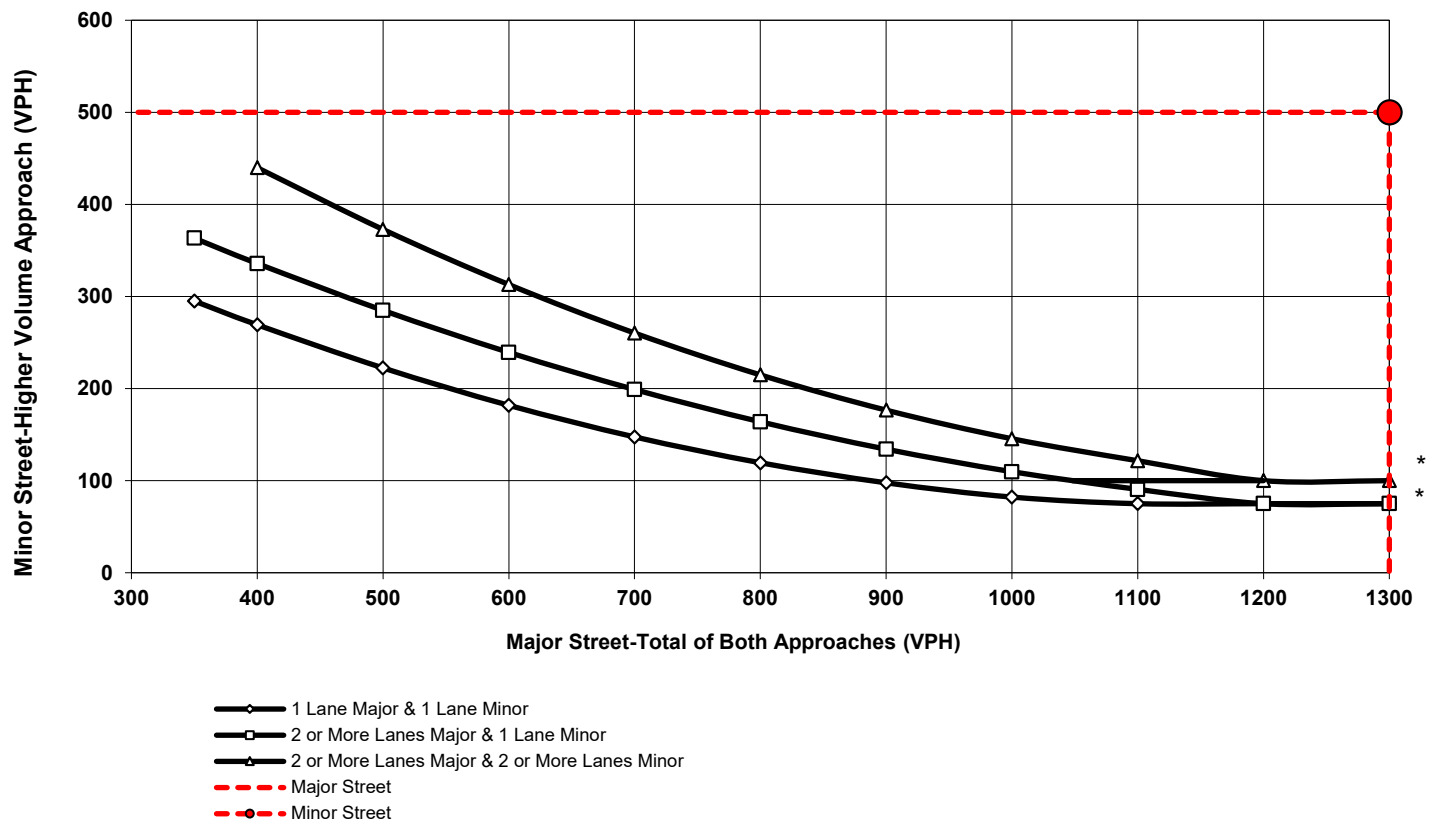
Higher Volume Approach (VPH): **882**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2030 WP Conditions
PM Peak Hour Volume Warrant
Bear Valley Rd/3rd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **AM**

Major Street: **2nd**

Minor Street: **Jasmine**

Total of Both Approaches (VPH): **413**

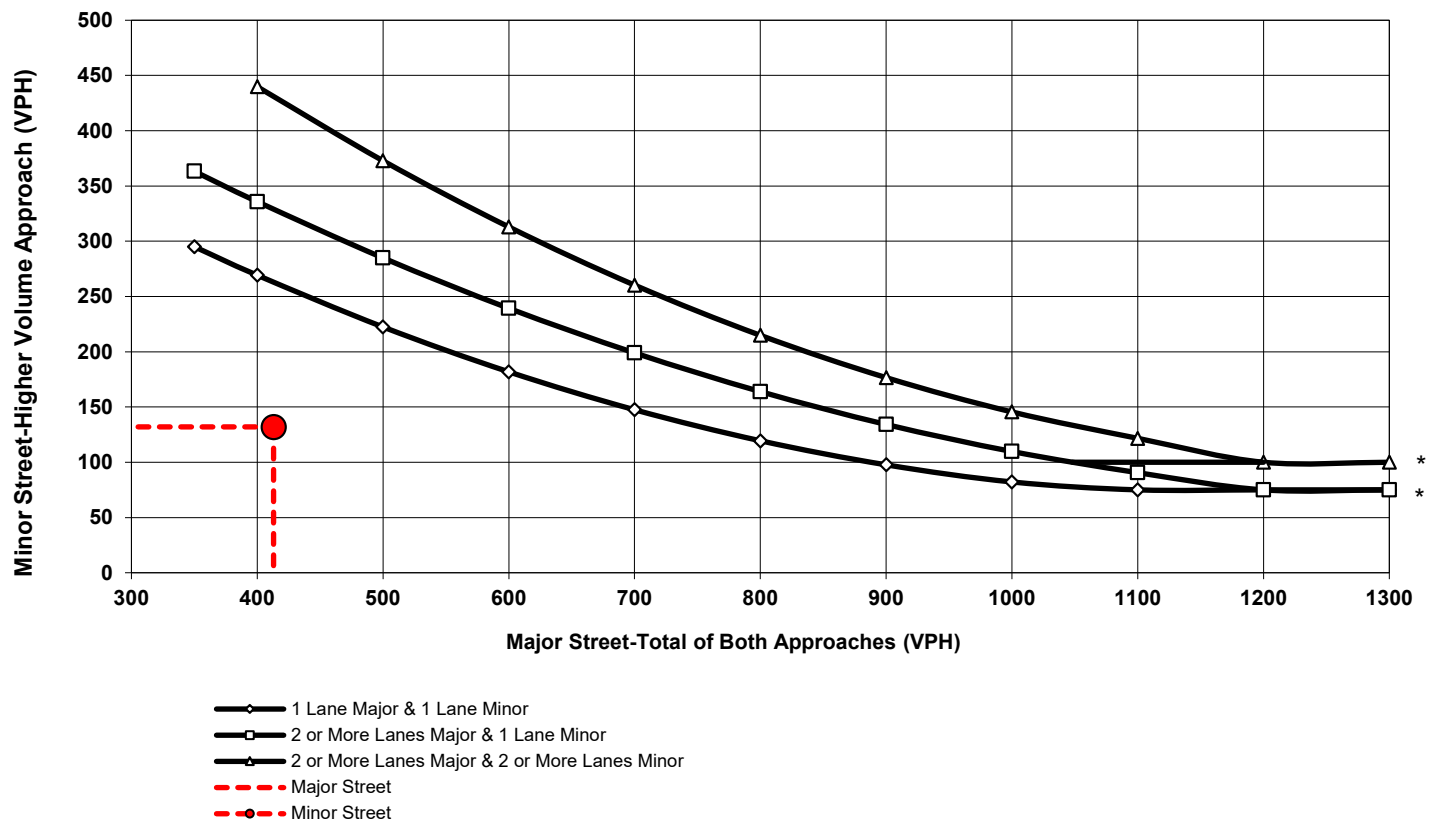
Higher Volume Approach (VPH): **132**

Number of Approach Lanes: **2**

Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
Jasmine/2nd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **PM**

Major Street: **2nd**

Minor Street: **Jasmine**

Total of Both Approaches (VPH): **411**

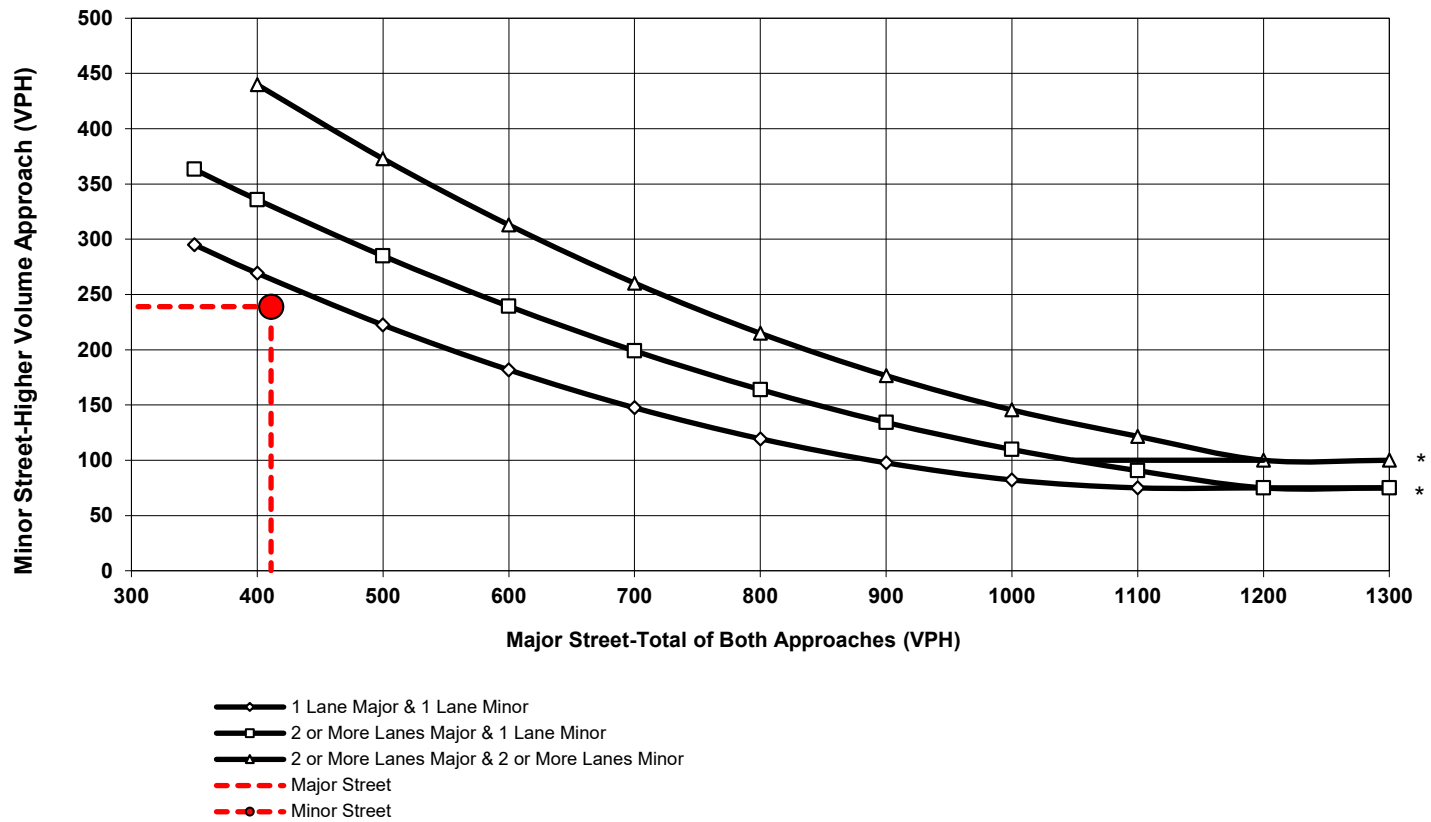
Higher Volume Approach (VPH): **239**

Number of Approach Lanes: **2**

Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
Jasmine/2nd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **AM**

Major Street: **2nd**

Minor Street: **Jasmine**

Total of Both Approaches (VPH): **387**

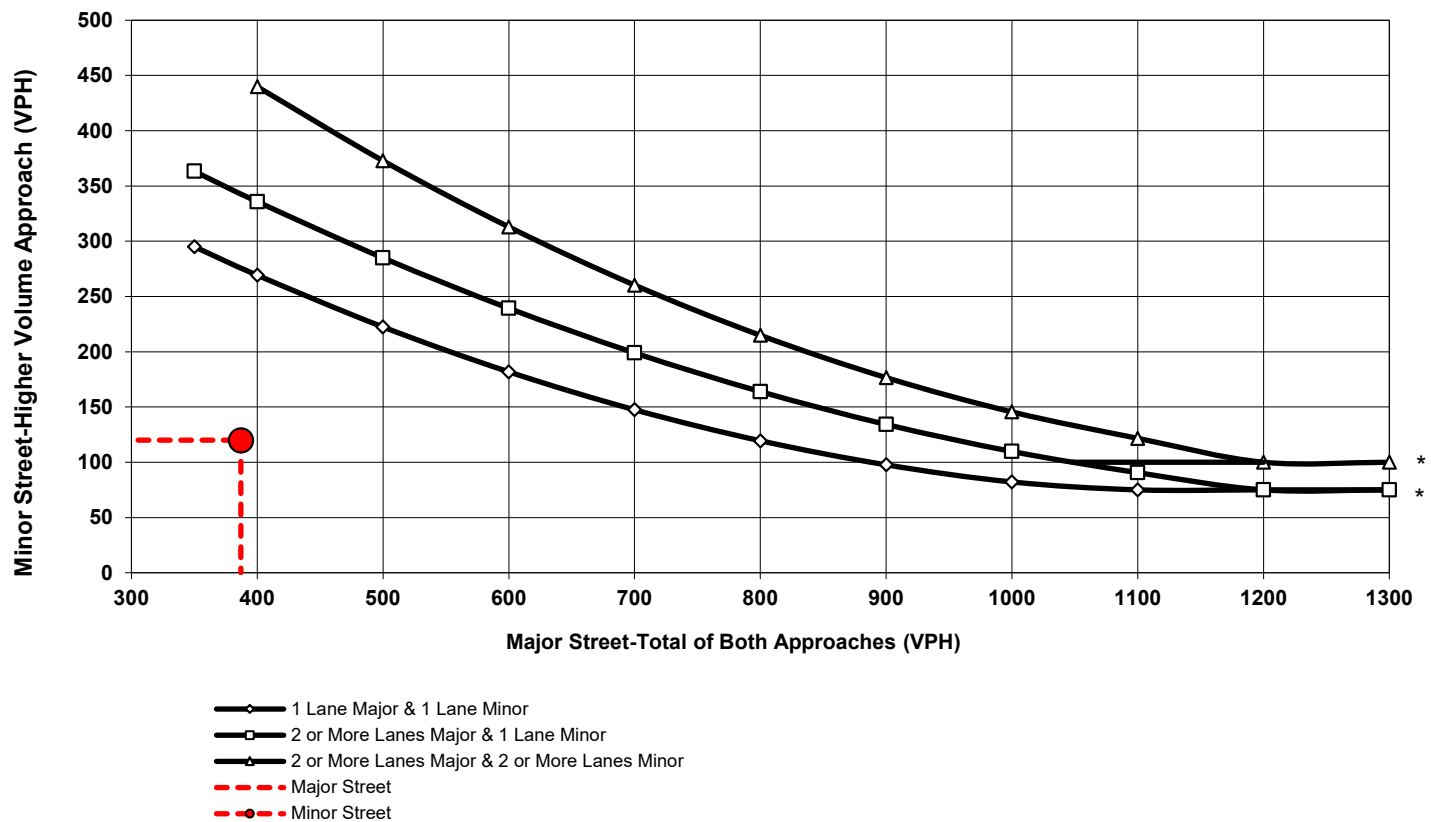
Higher Volume Approach (VPH): **120**

Number of Approach Lanes: **2**

Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2020 WP Conditions
AM Peak Hour Volume Warrant
Jasmine/2nd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **PM**

Major Street: **2nd**

Minor Street: **Jasmine**

Total of Both Approaches (VPH): **370**

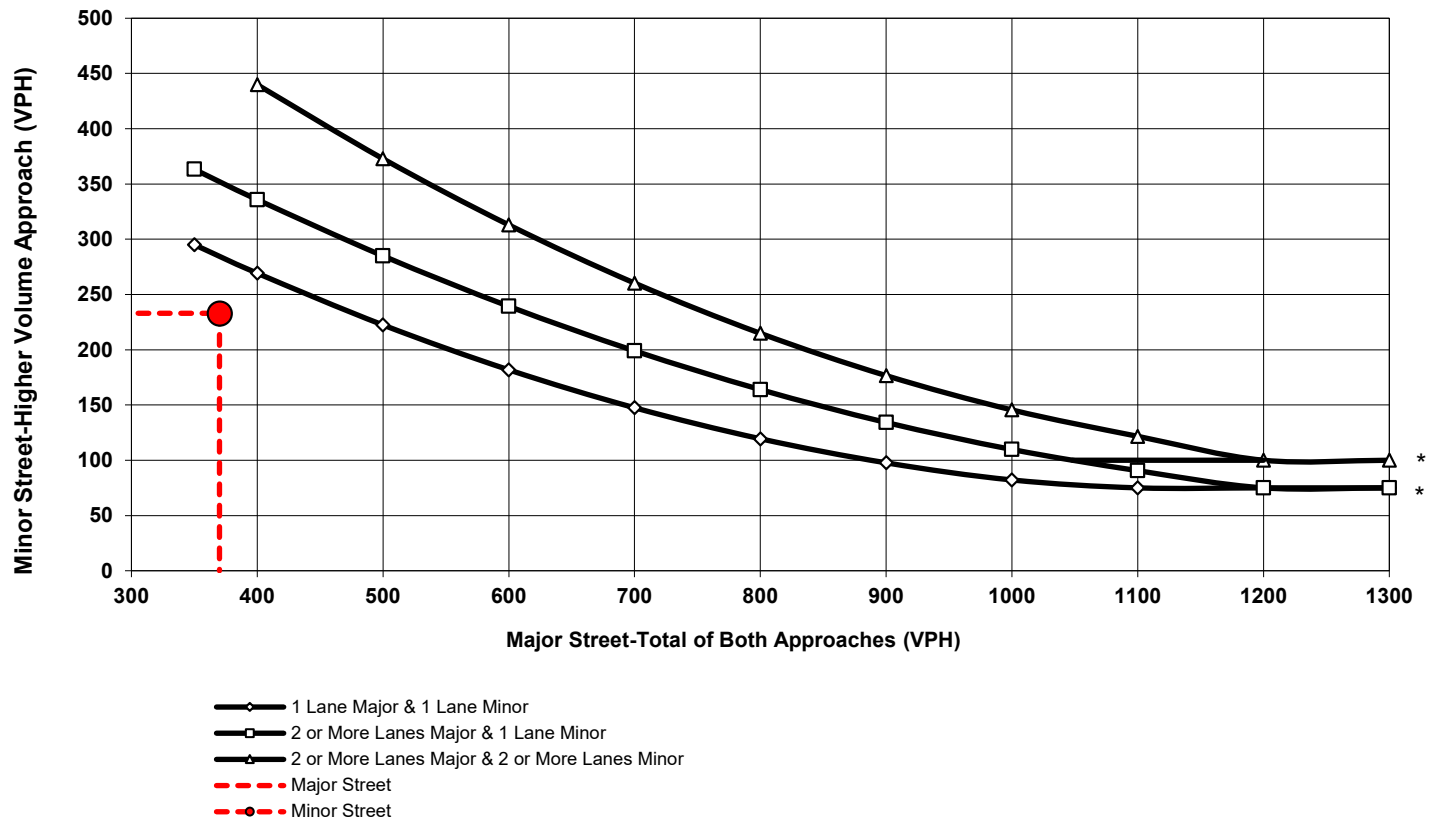
Higher Volume Approach (VPH): **233**

Number of Approach Lanes: **2**

Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2020 WP Conditions
PM Peak Hour Volume Warrant
Jasmine/2nd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **AM**

Major Street: **2nd**

Minor Street: **Jasmine**

Total of Both Approaches (VPH): **525**

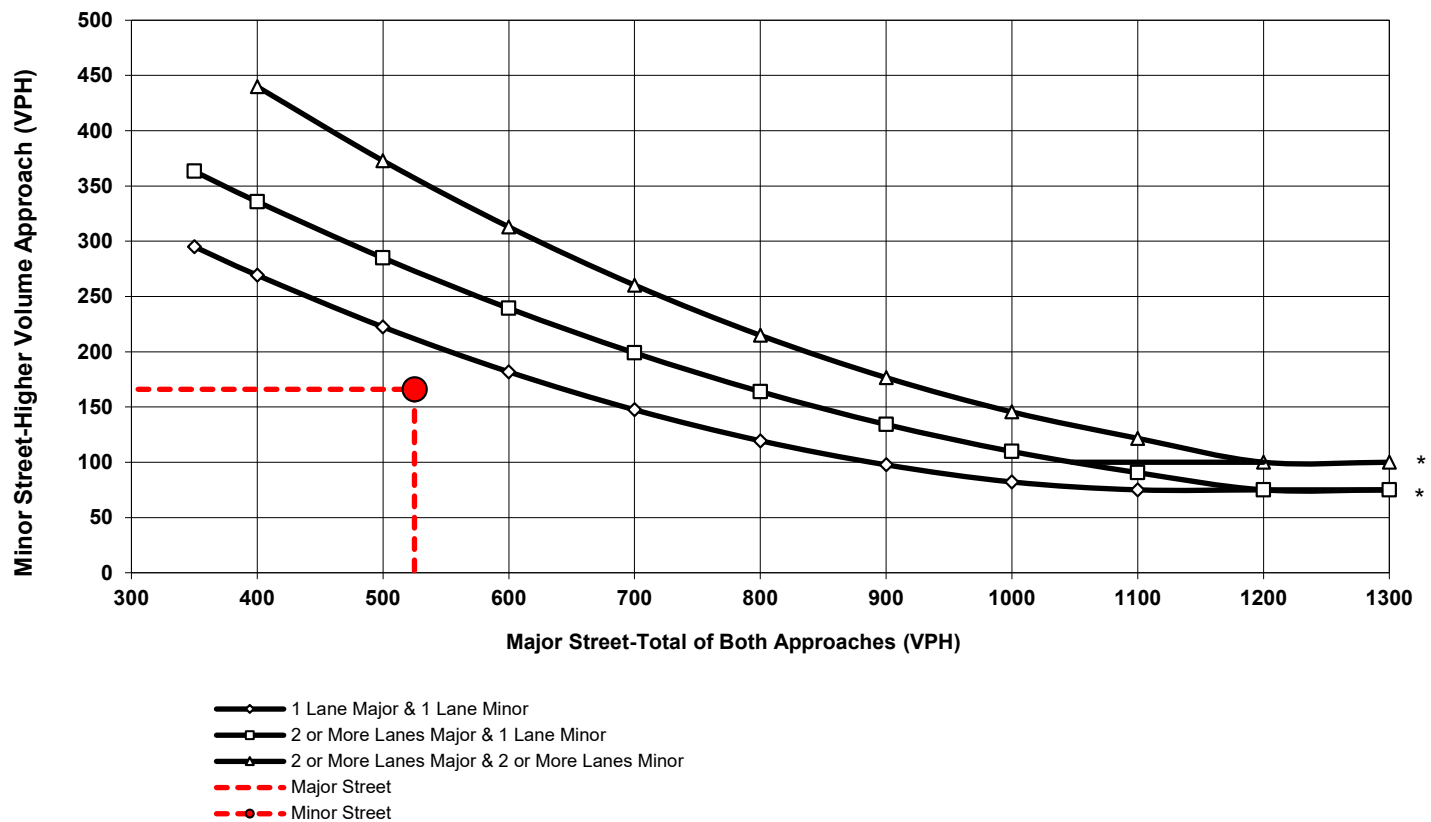
Higher Volume Approach (VPH): **166**

Number of Approach Lanes: **2**

Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2030 WP Conditions
AM Peak Hour Volume Warrant
Jasmine/2nd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **PM**

Major Street: **2nd**

Minor Street: **Jasmine**

Total of Both Approaches (VPH): **517**

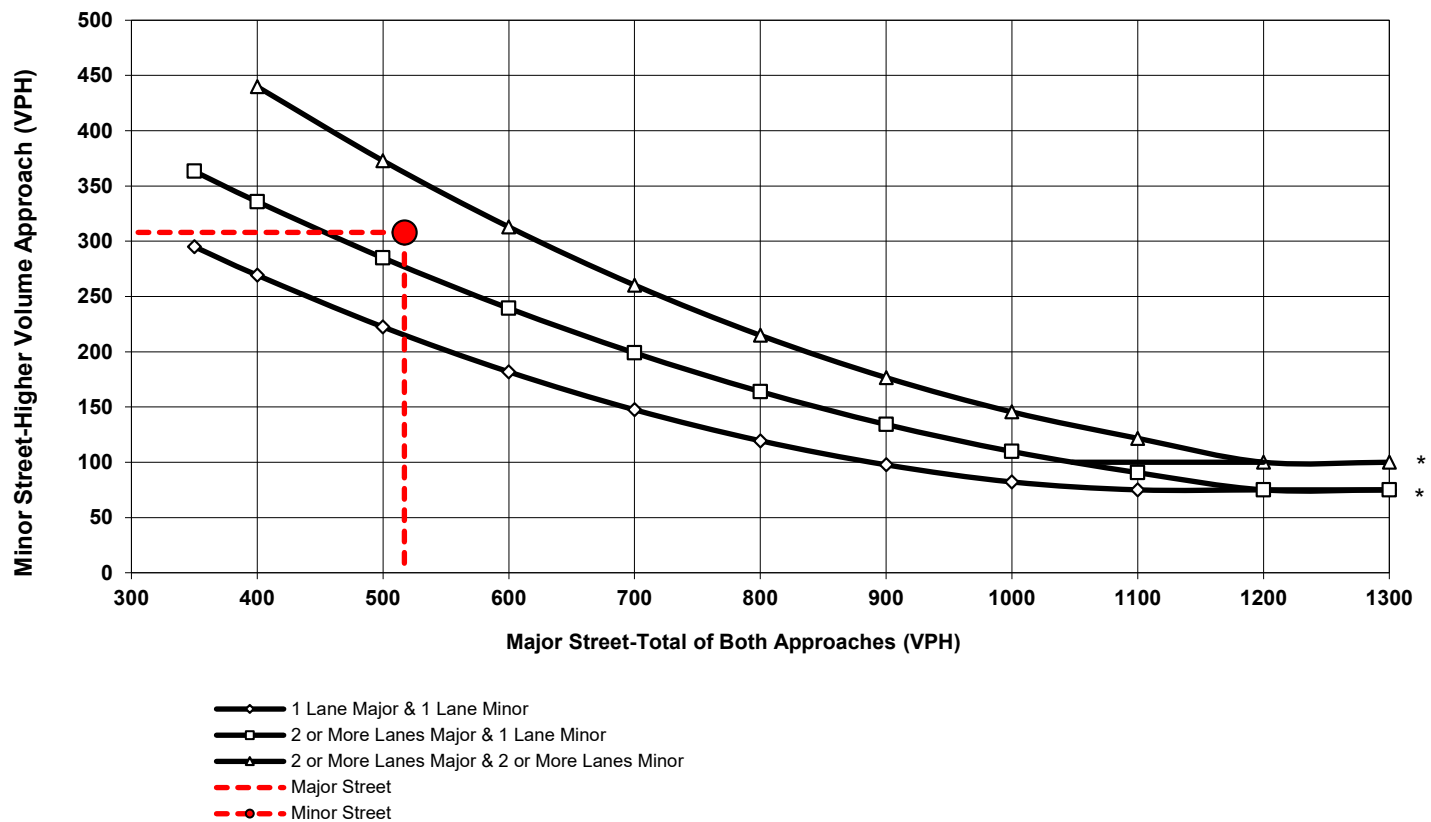
Higher Volume Approach (VPH): **308**

Number of Approach Lanes: **2**

Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2030 WP Conditions
PM Peak Hour Volume Warrant
Jasmine/2nd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: AM

Major Street: Silica

Minor Street: 2nd Ave

Total of Both Approaches (VPH): **614**

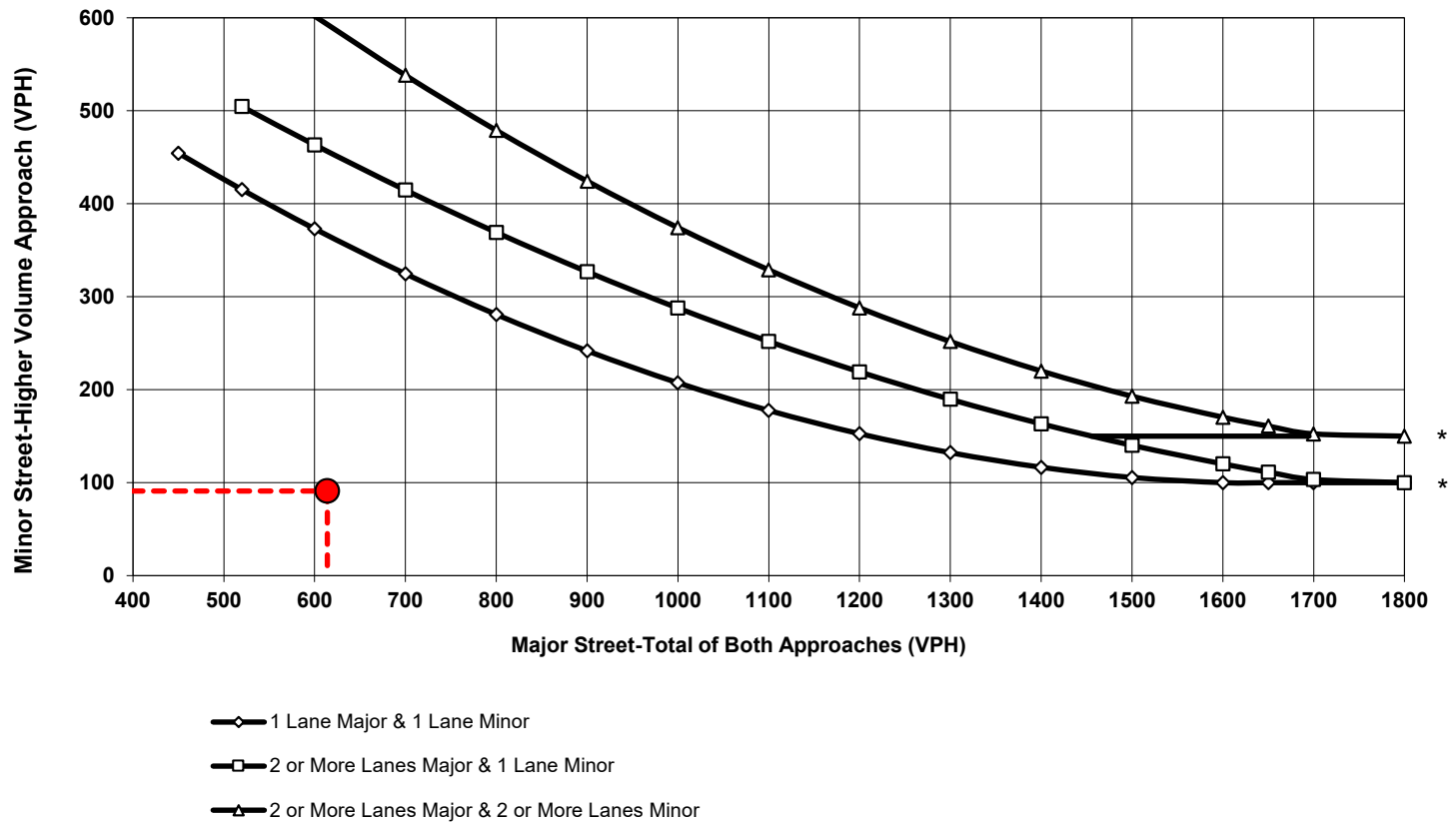
Higher Volume Approach (VPH): **91**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
Silica/2nd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Silica

Minor Street: 2nd Ave

Total of Both Approaches (VPH): **466**

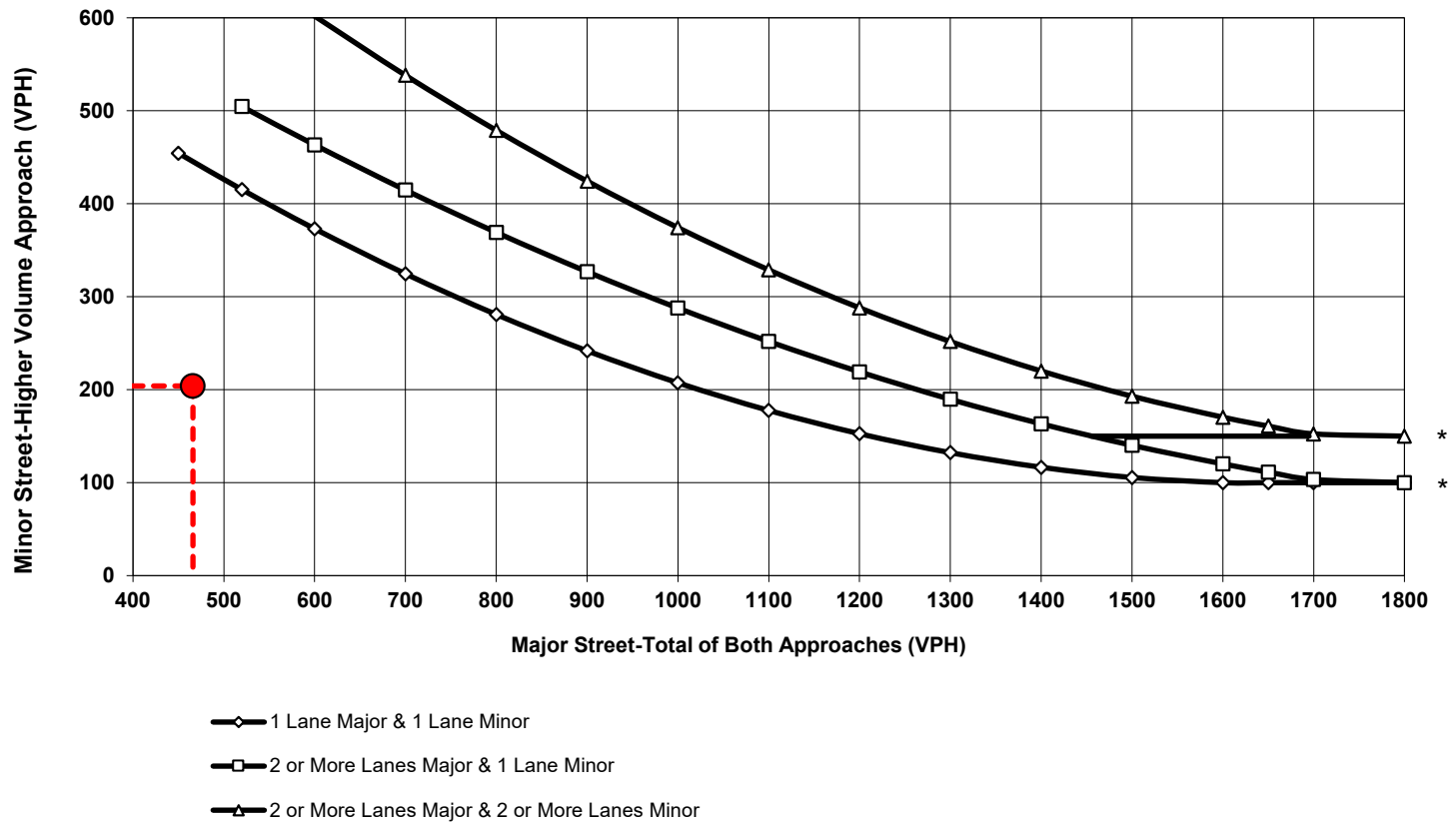
Higher Volume Approach (VPH): **204**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
Silica/2nd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: AM

Major Street: Silica

Minor Street: 2nd Ave

Total of Both Approaches (VPH): **624**

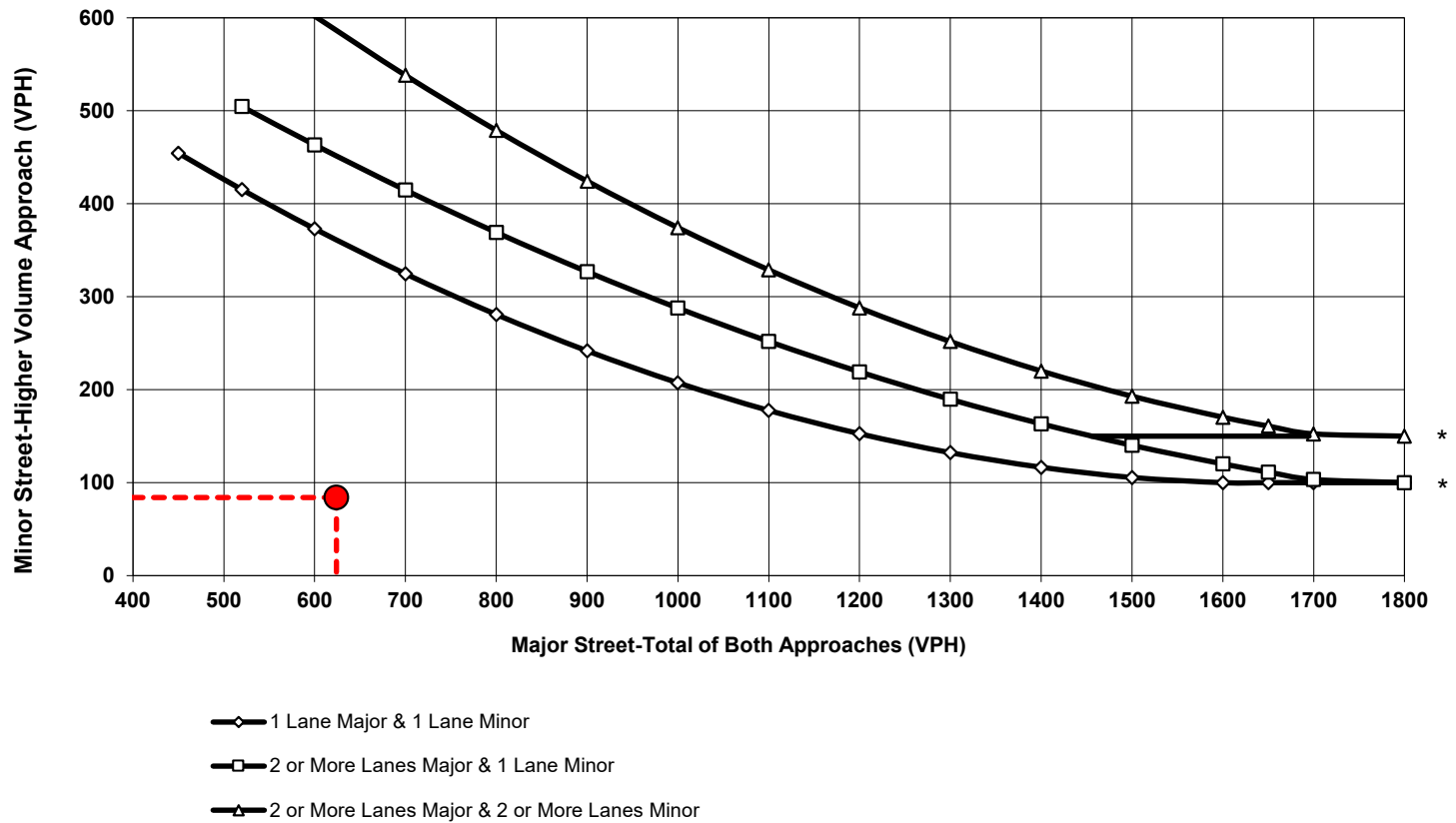
Higher Volume Approach (VPH): **84**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
AM Peak Hour Volume Warrant
Silica/2nd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Silica

Minor Street: 2nd Ave

Total of Both Approaches (VPH): **477**

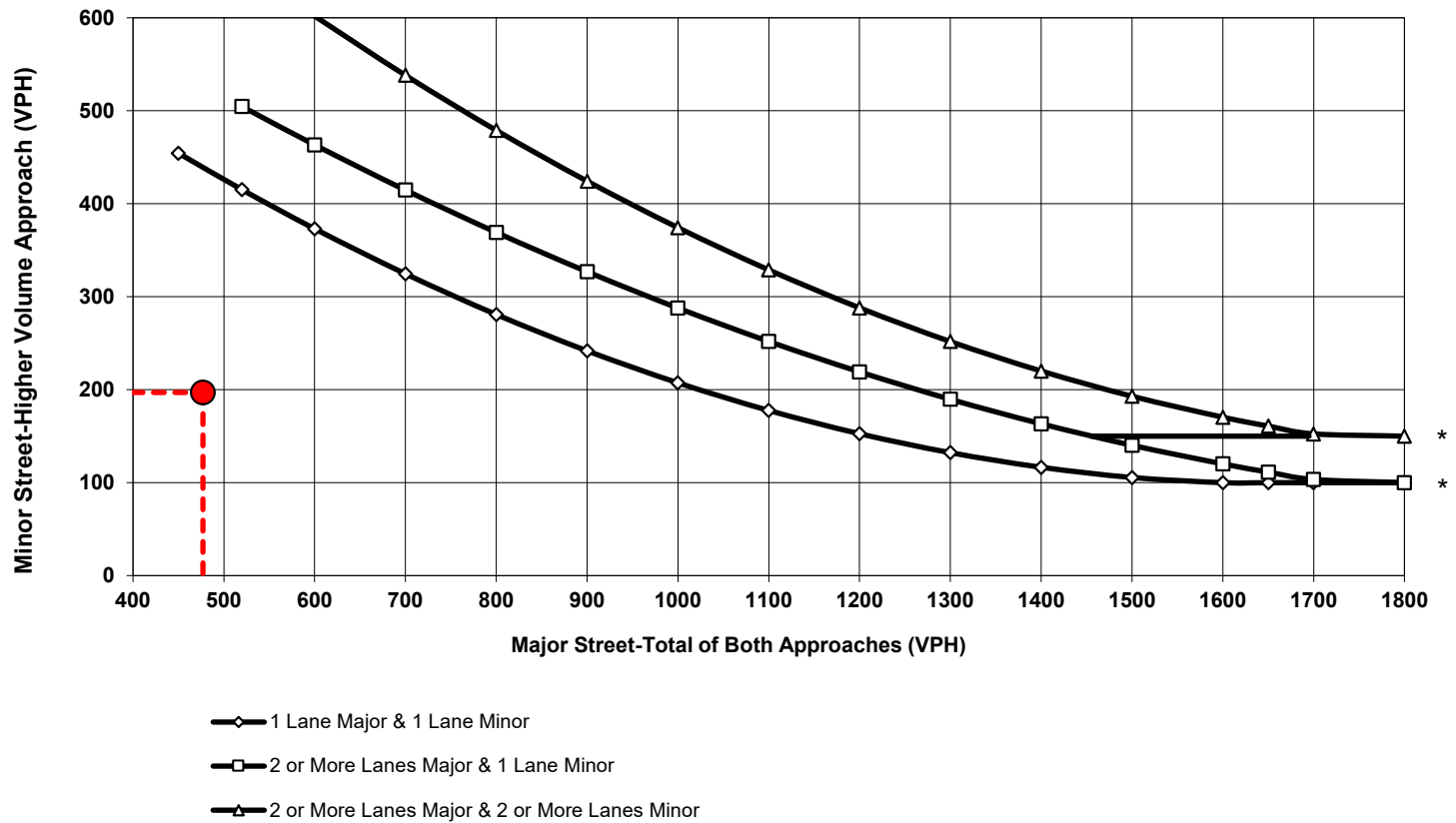
Higher Volume Approach (VPH): **197**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
PM Peak Hour Volume Warrant
Silica/2nd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: AM

Major Street: Silica

Minor Street: 2nd Ave

Total of Both Approaches (VPH): **798**

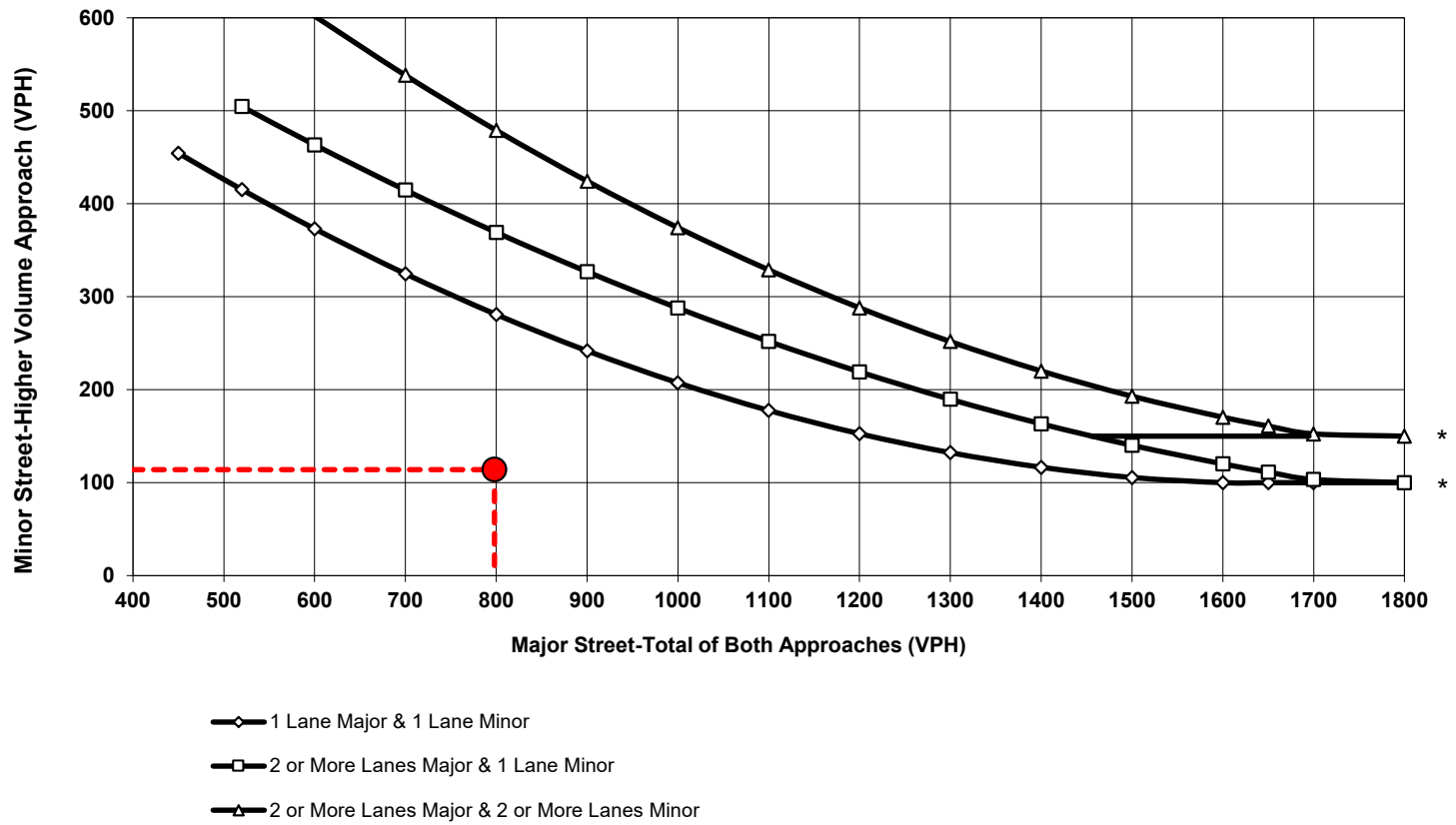
Higher Volume Approach (VPH): **114**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
AM Peak Hour Volume Warrant
Silica/2nd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Silica

Minor Street: 2nd Ave

Total of Both Approaches (VPH): **605**

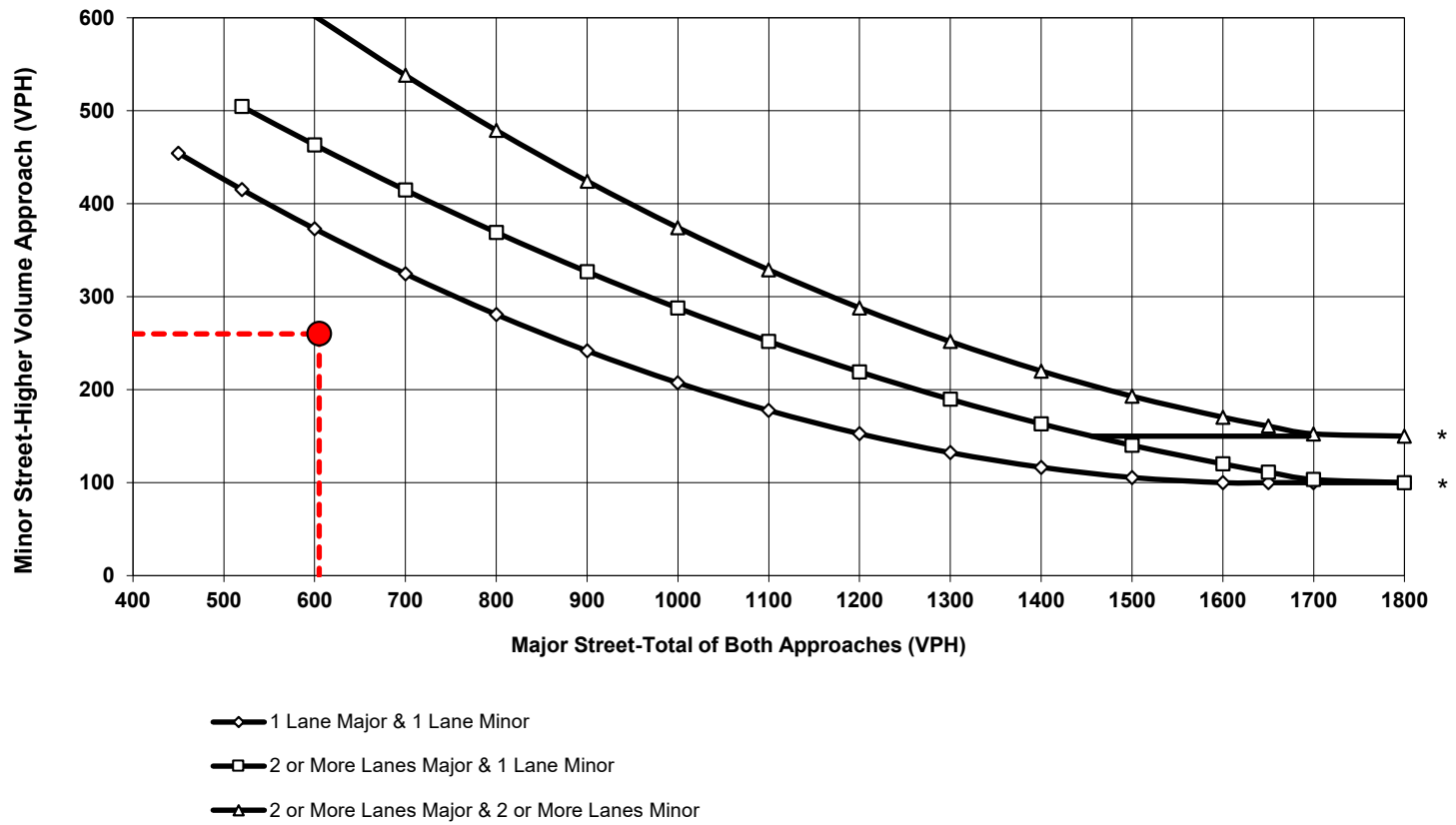
Higher Volume Approach (VPH): **260**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
PM Peak Hour Volume Warrant
Silica/2nd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **3rd**

Minor Street: **Silica**

Total of Both Approaches (VPH): **463**

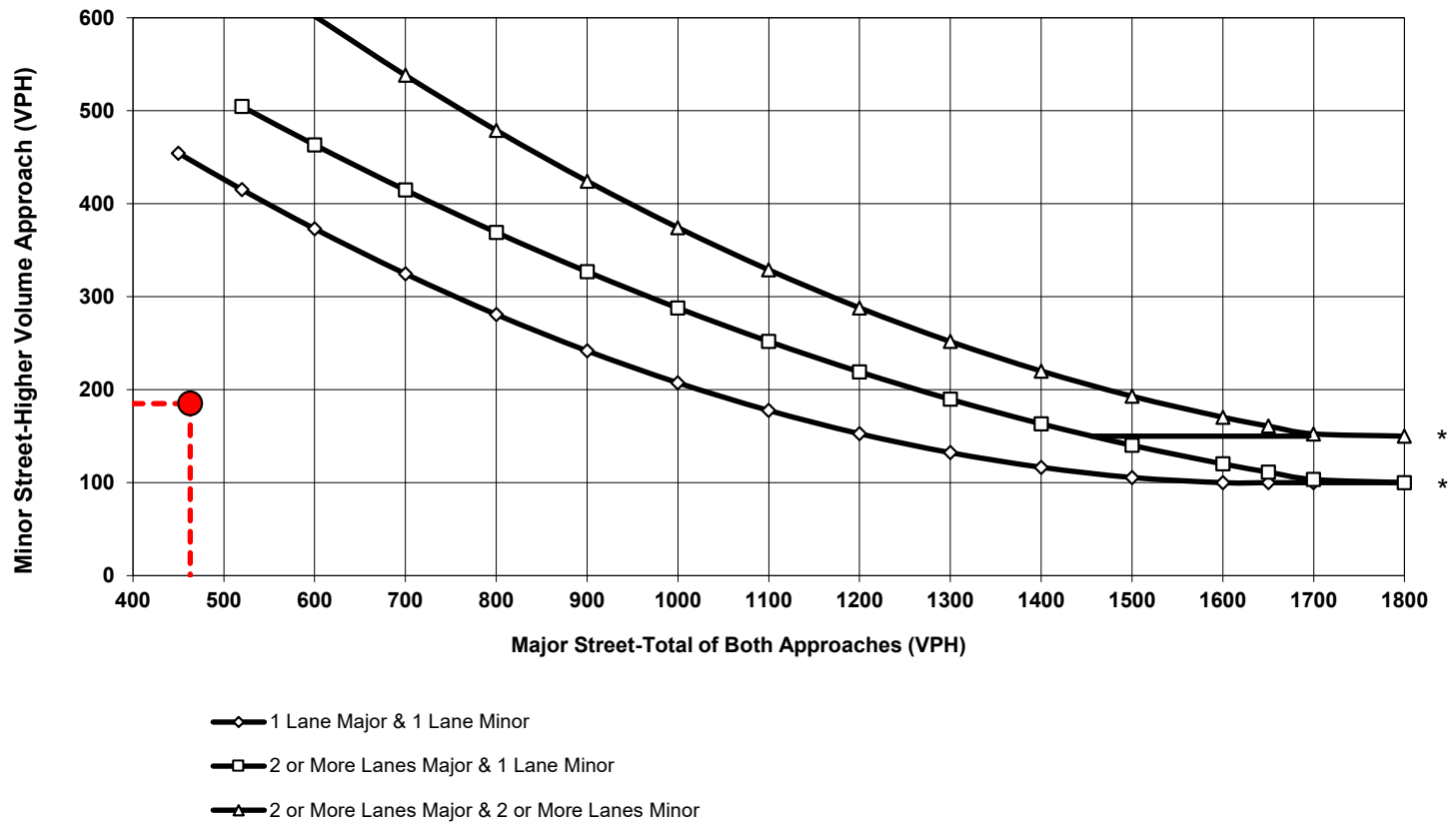
Higher Volume Approach (VPH): **185**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
Silica/3rd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Silica

Minor Street: 3rd Ave

Total of Both Approaches (VPH): **486**

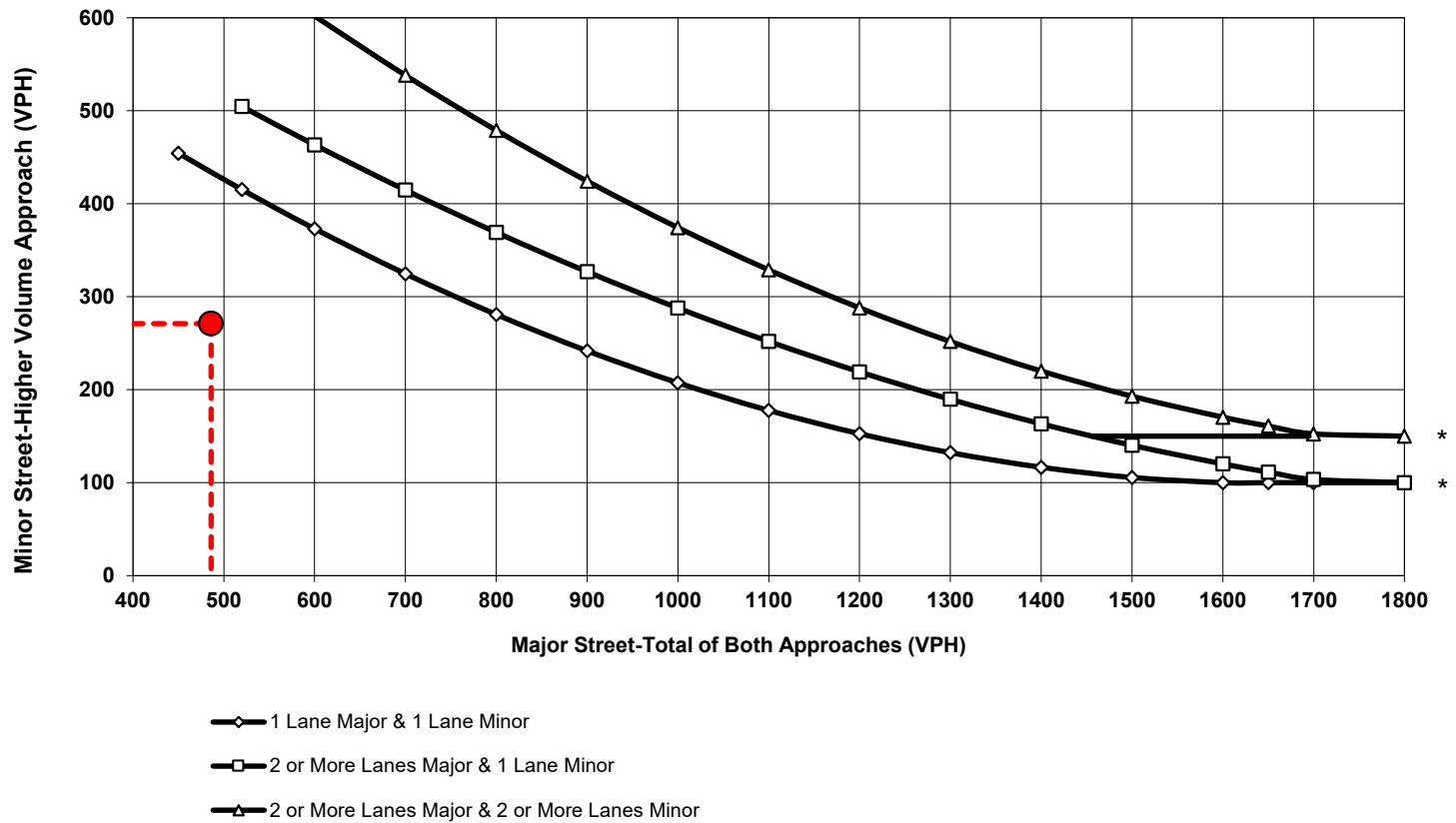
Higher Volume Approach (VPH): **271**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
Silica/3rd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **3rd**

Minor Street: **Silica**

Total of Both Approaches (VPH): **429**

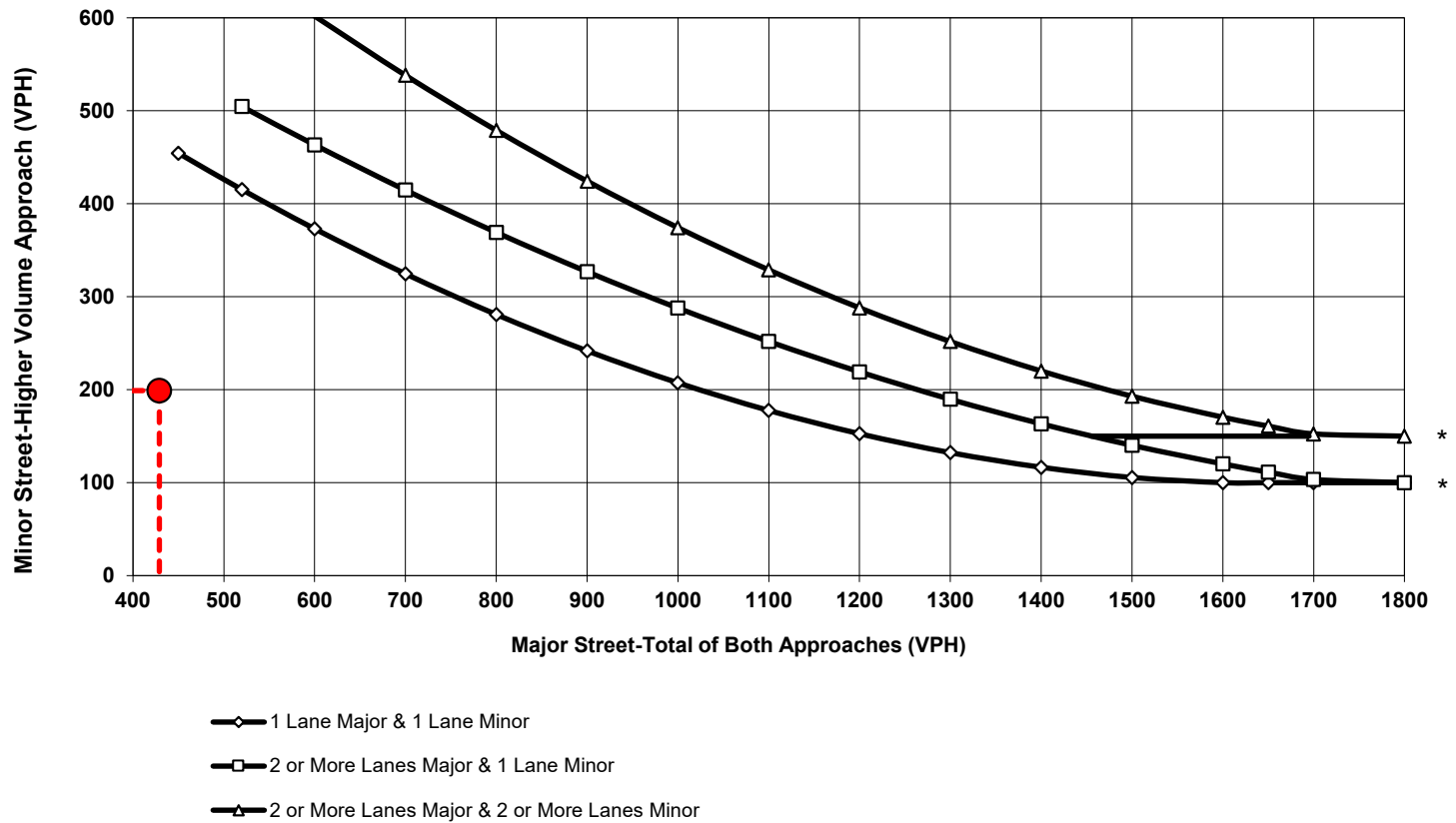
Higher Volume Approach (VPH): **199**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
AM Peak Hour Volume Warrant
Silica/3rd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Silica

Minor Street: 3rd Ave

Total of Both Approaches (VPH): **504**

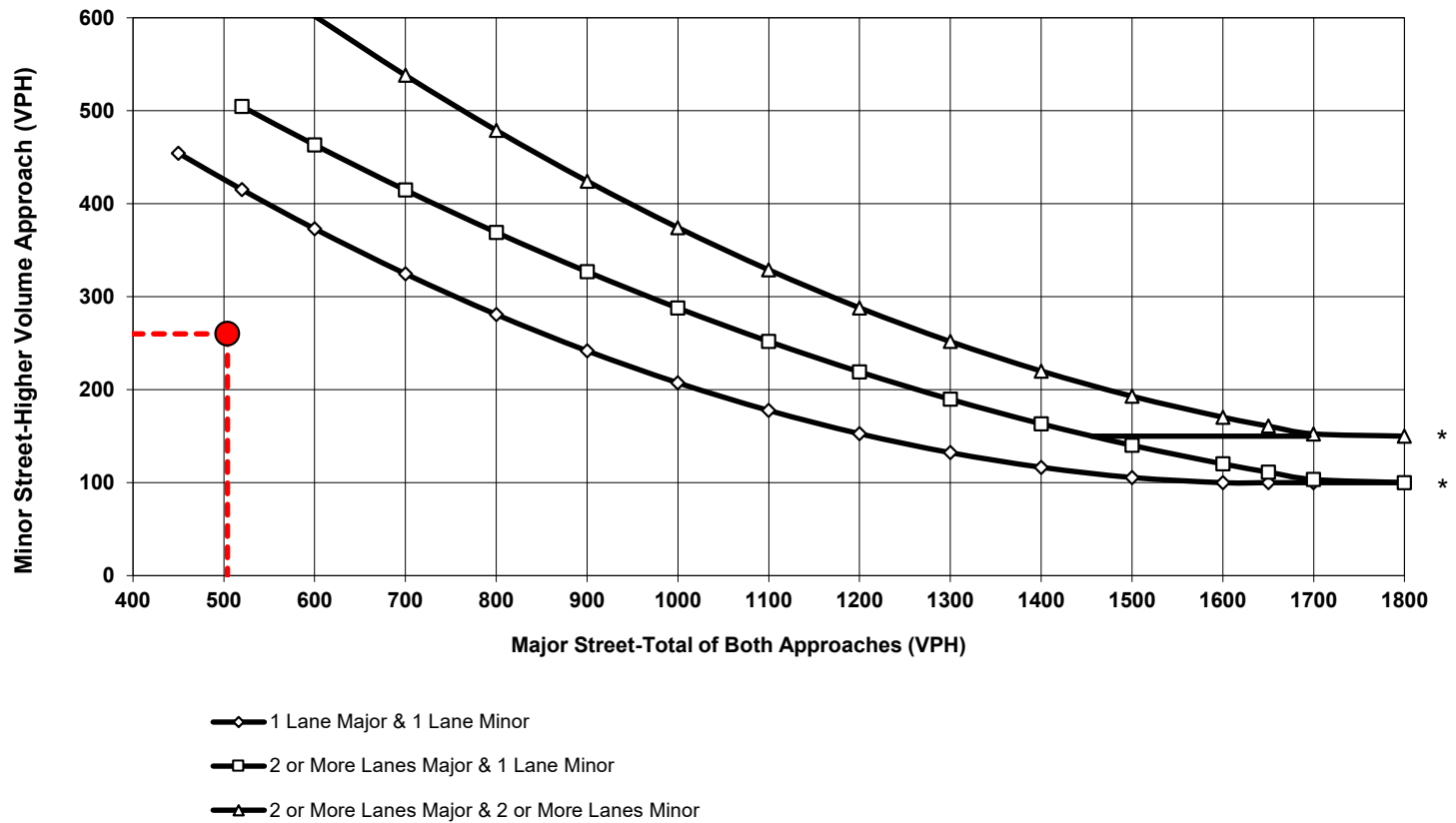
Higher Volume Approach (VPH): **260**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
PM Peak Hour Volume Warrant
Silica/3rd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: AM

Major Street: 3rd

Minor Street: Silica

Total of Both Approaches (VPH): **578**

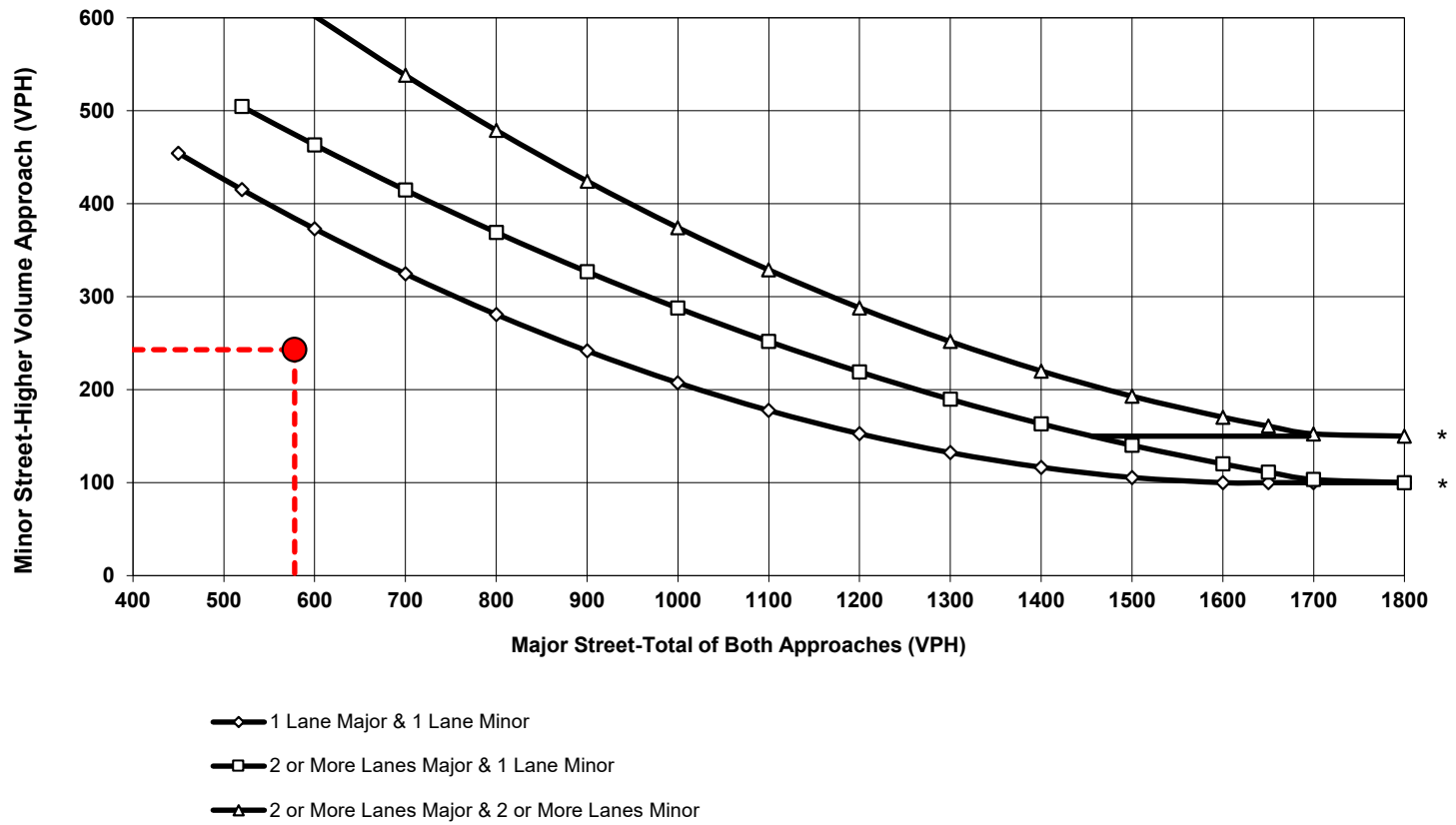
Higher Volume Approach (VPH): **243**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
AM Peak Hour Volume Warrant
Silica/3rd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Silica

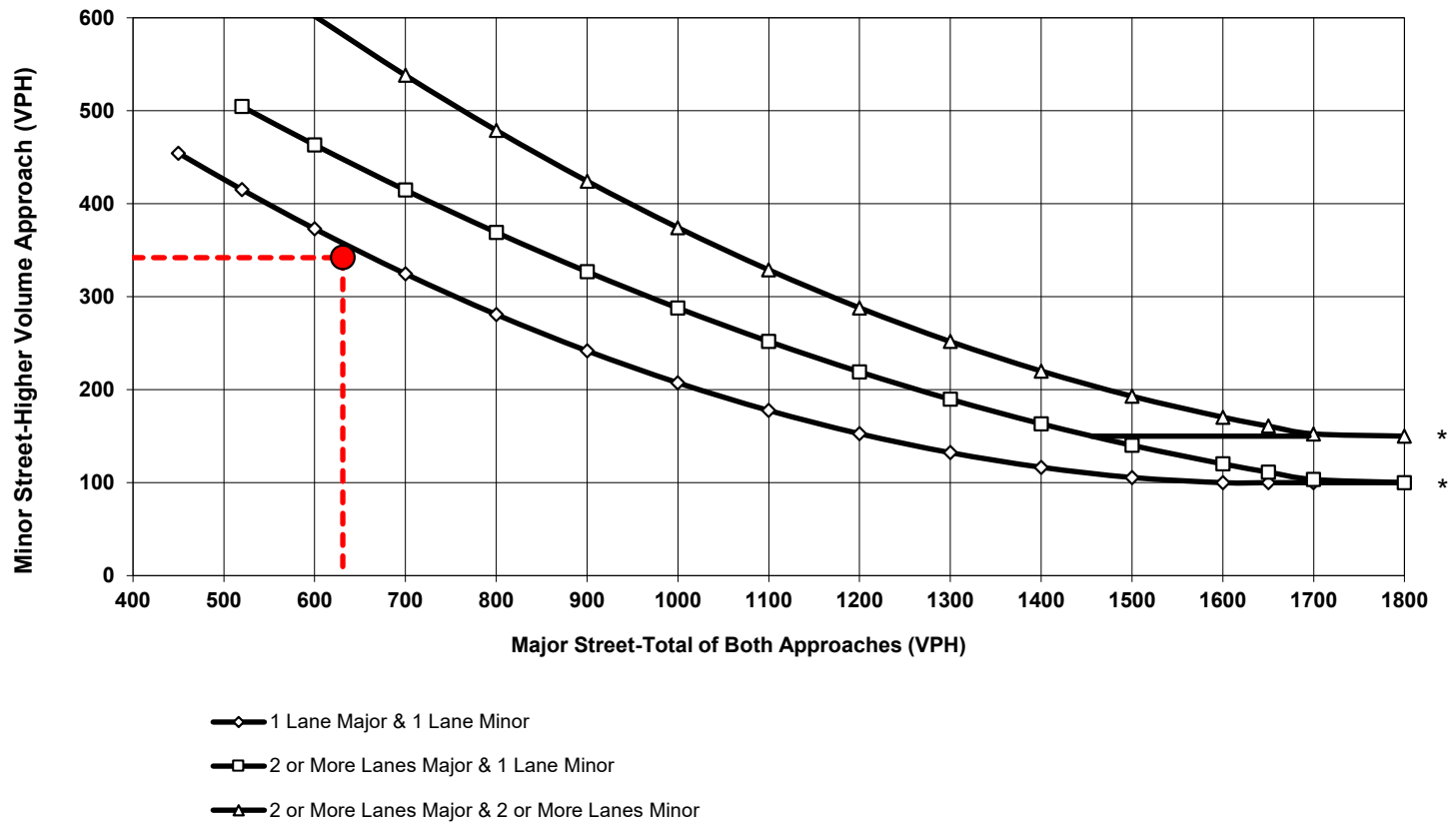
Minor Street: 3rd Ave

Total of Both Approaches (VPH): **631**
Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **342**
Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
PM Peak Hour Volume Warrant
Silica/3rd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **3rd**

Minor Street: **Sequoia**

Total of Both Approaches (VPH): **228**

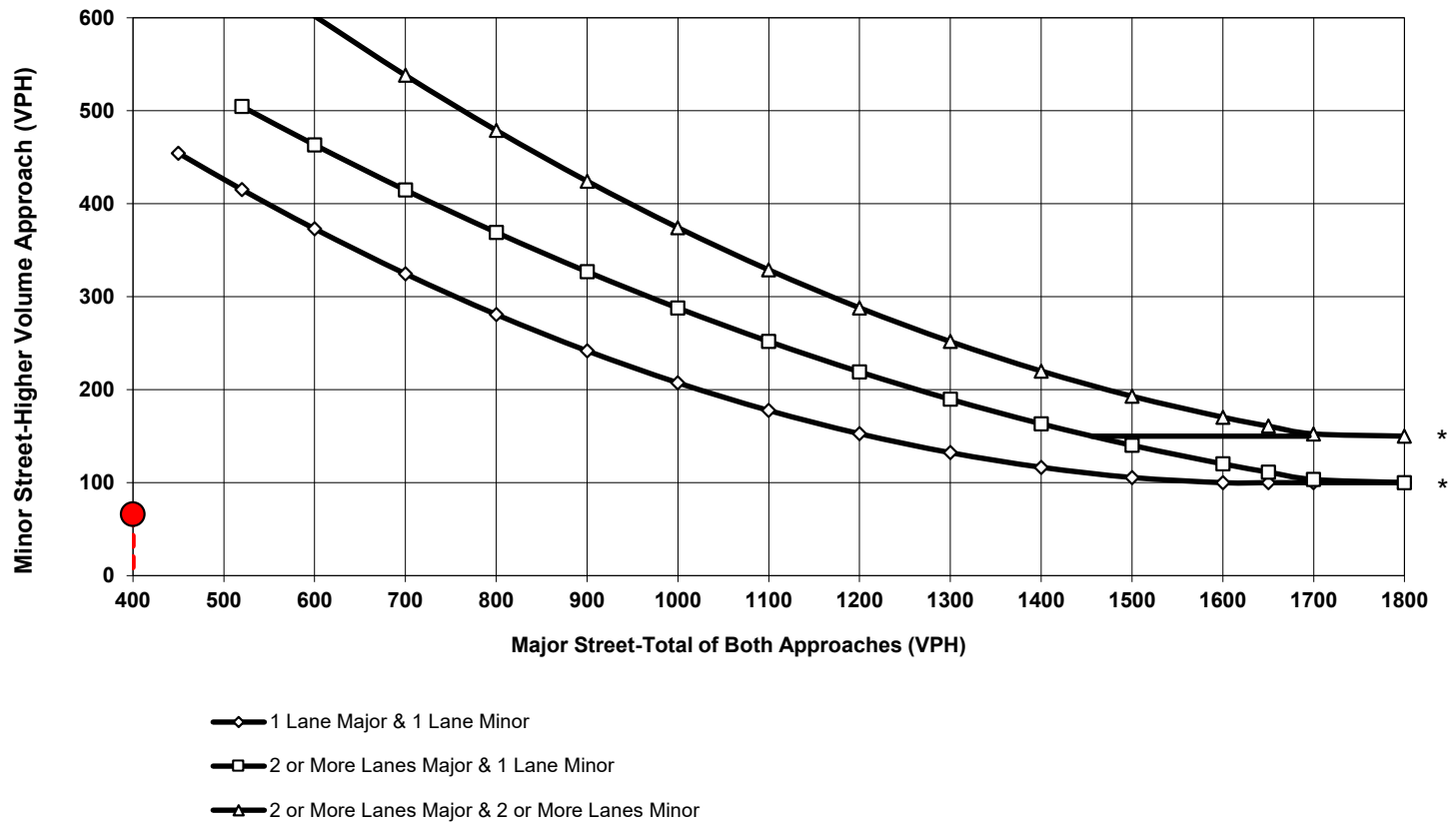
Higher Volume Approach (VPH): **66**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
3rd/Sequoia**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: 3rd Ave

Minor Street: Sequoia

Total of Both Approaches (VPH): **278**

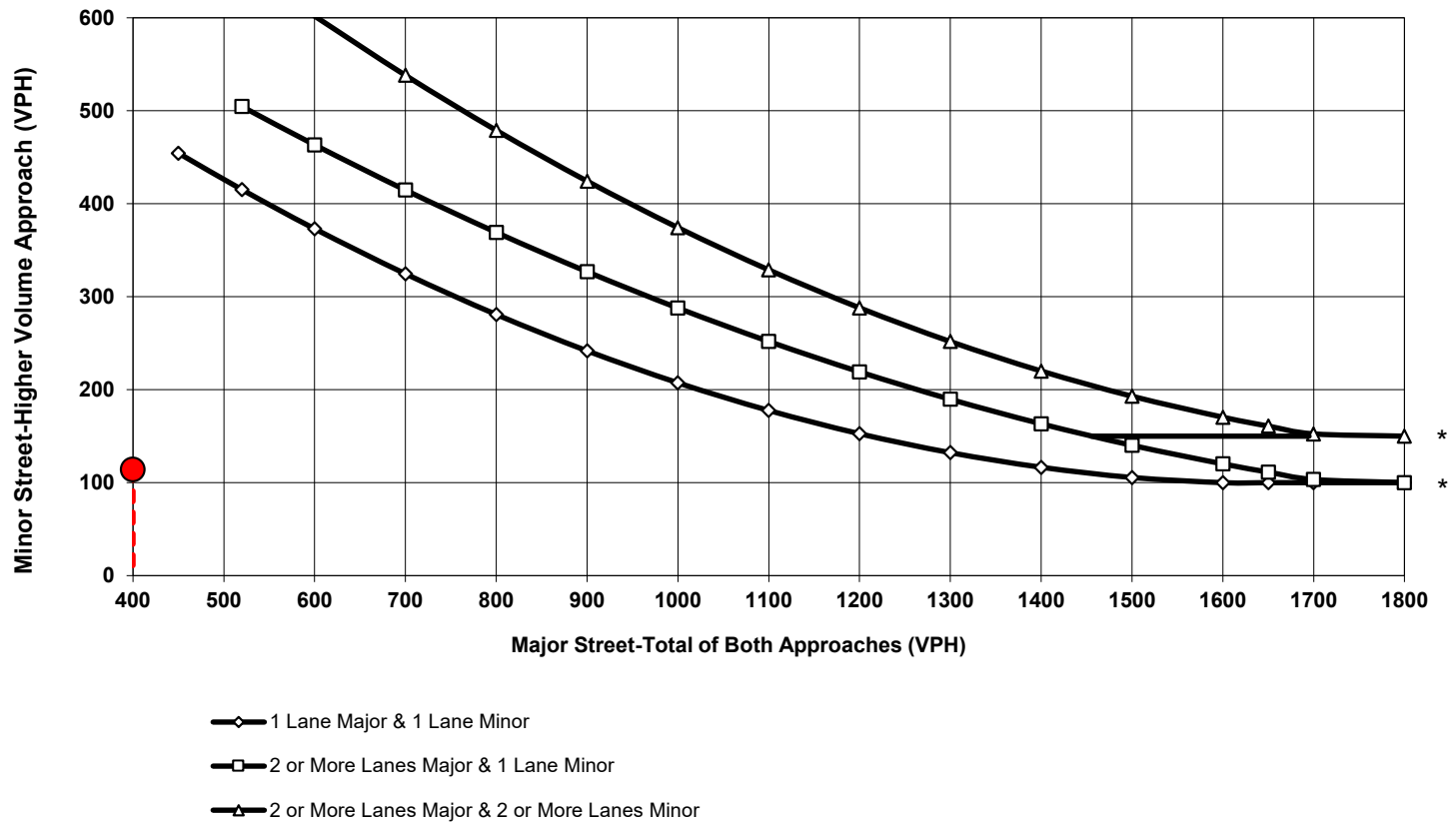
Higher Volume Approach (VPH): **114**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
3rd Ave/Sequoia**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **3rd**

Minor Street: **Sequoia**

Total of Both Approaches (VPH): **214**

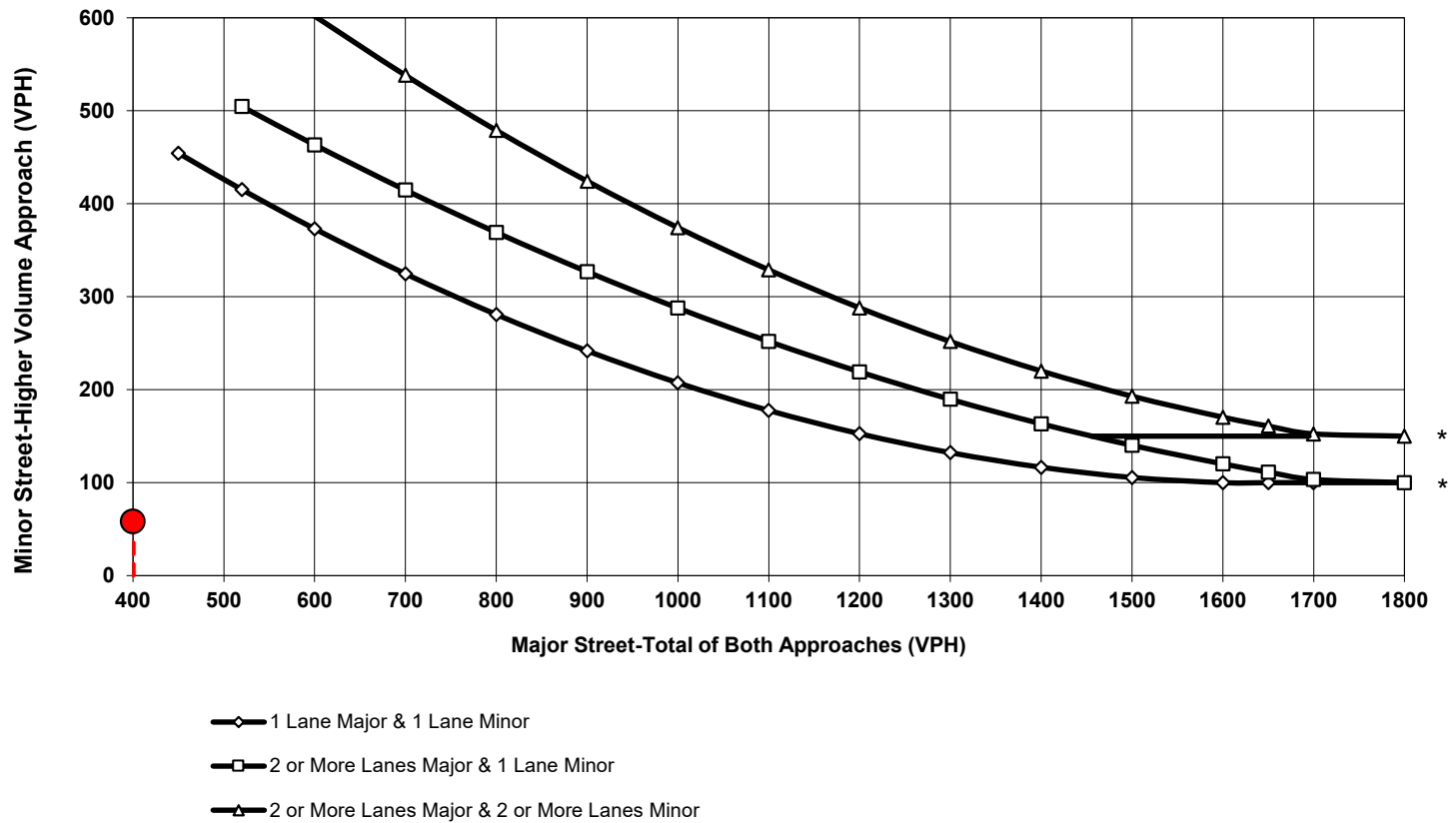
Higher Volume Approach (VPH): **58**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
AM Peak Hour Volume Warrant
3rd/Sequoia**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **PM**

Major Street: **3rd**

Minor Street: **Sequoia**

Total of Both Approaches (VPH): **258**

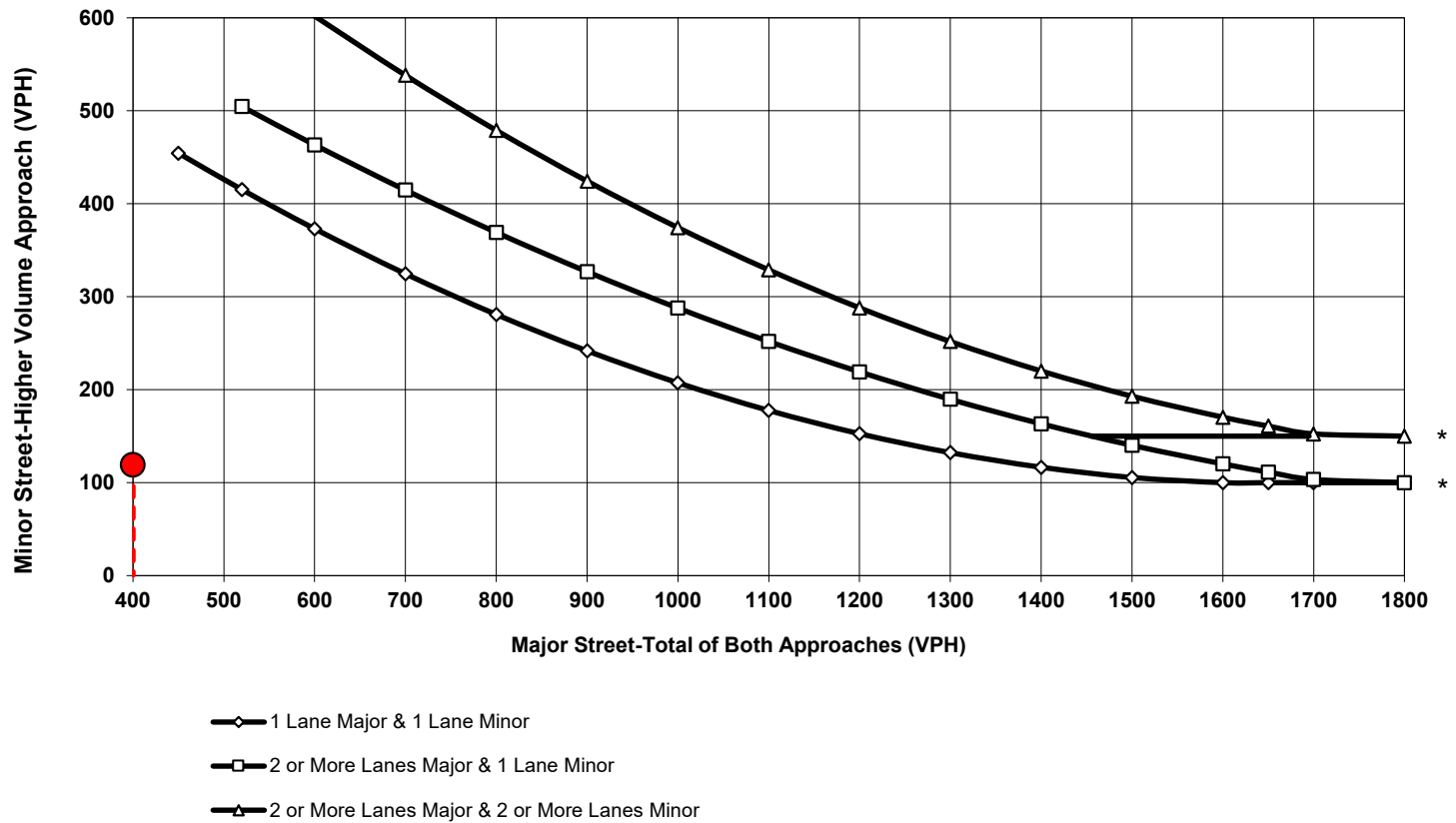
Higher Volume Approach (VPH): **119**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
PM Peak Hour Volume Warrant
3rd/Sequoia**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **3rd**

Minor Street: **Sequoia**

Total of Both Approaches (VPH): **290**

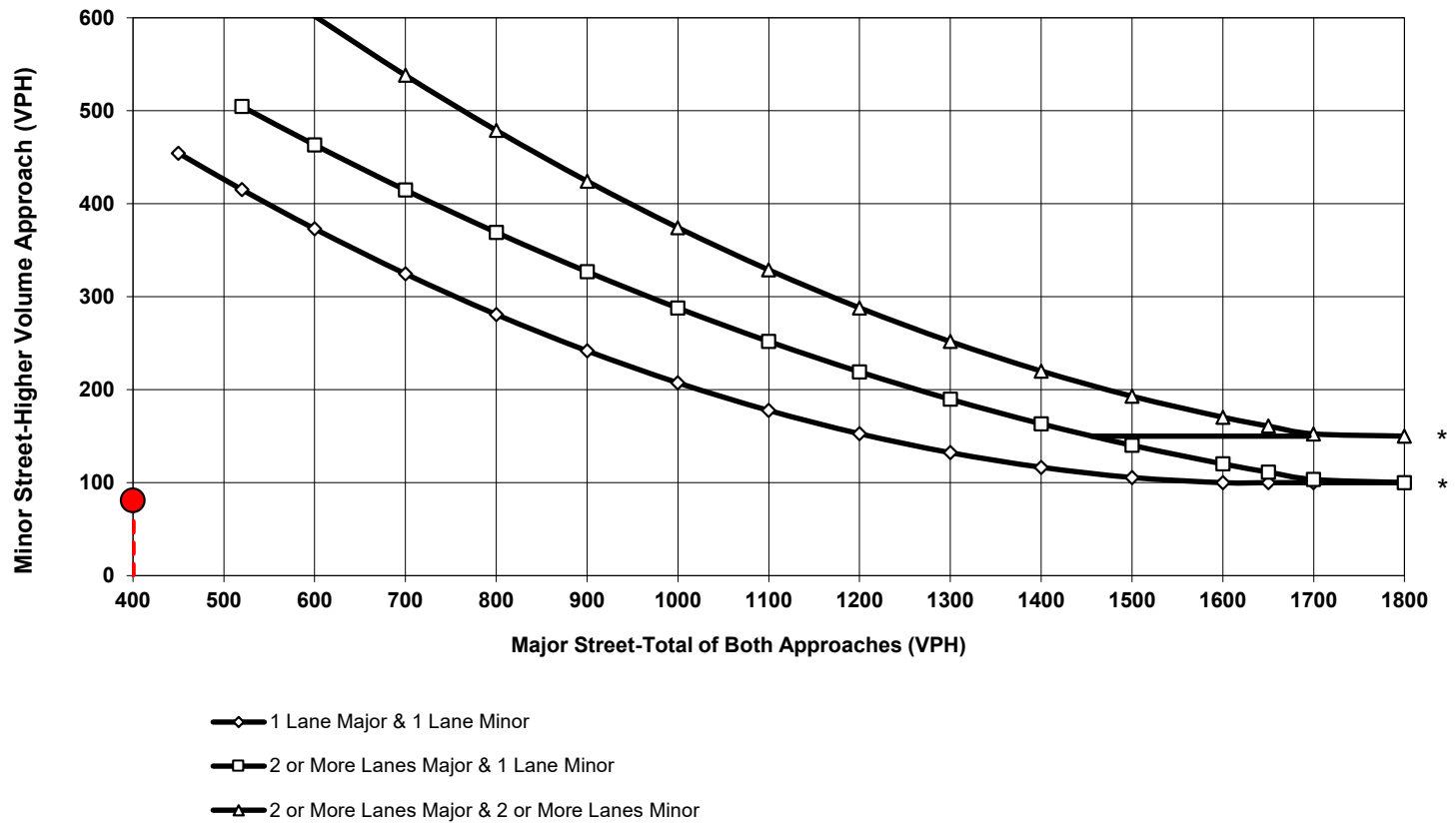
Higher Volume Approach (VPH): **81**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
AM Peak Hour Volume Warrant
3rd/Sequoia**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: 3rd

Minor Street: Sequoia

Total of Both Approaches (VPH): **352**

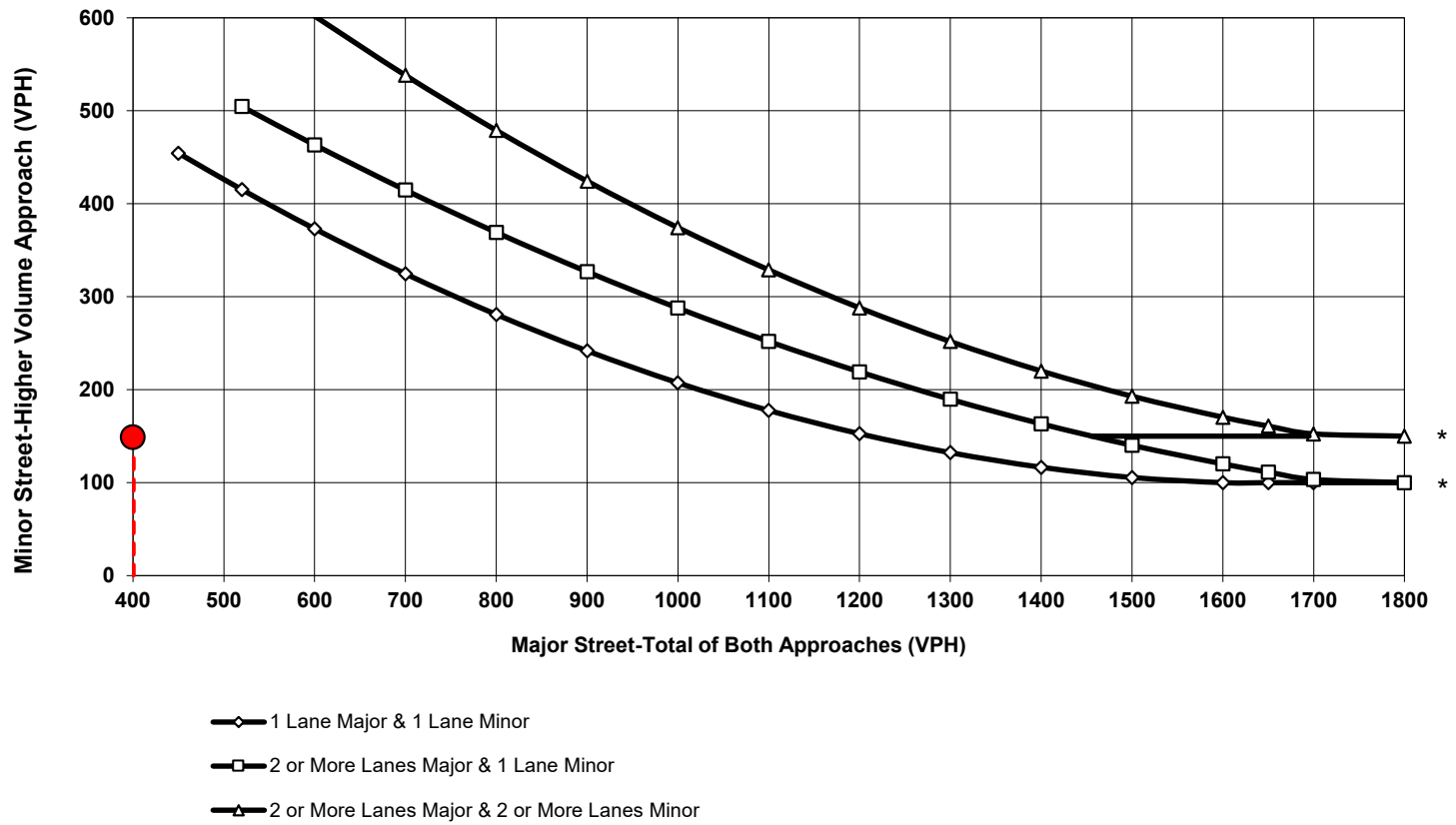
Higher Volume Approach (VPH): **149**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
PM Peak Hour Volume Warrant
3rd/Sequoia**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: AM

Major Street: 2nd

Minor Street: Sequoia

Total of Both Approaches (VPH): **116**

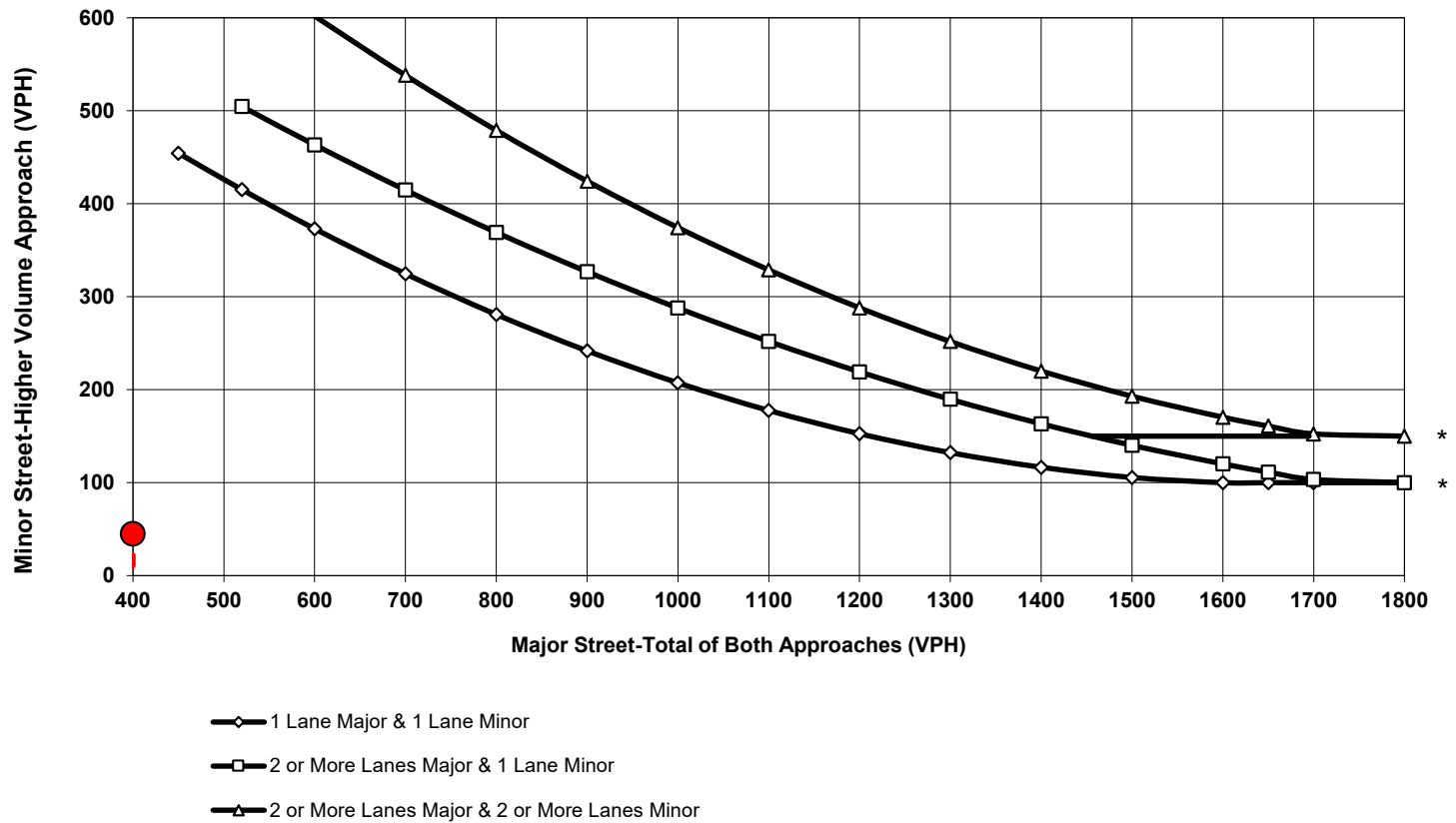
Higher Volume Approach (VPH): **45**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
Sequoia/2nd Ave**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Sequoia

Minor Street: 2nd

Total of Both Approaches (VPH): **173**

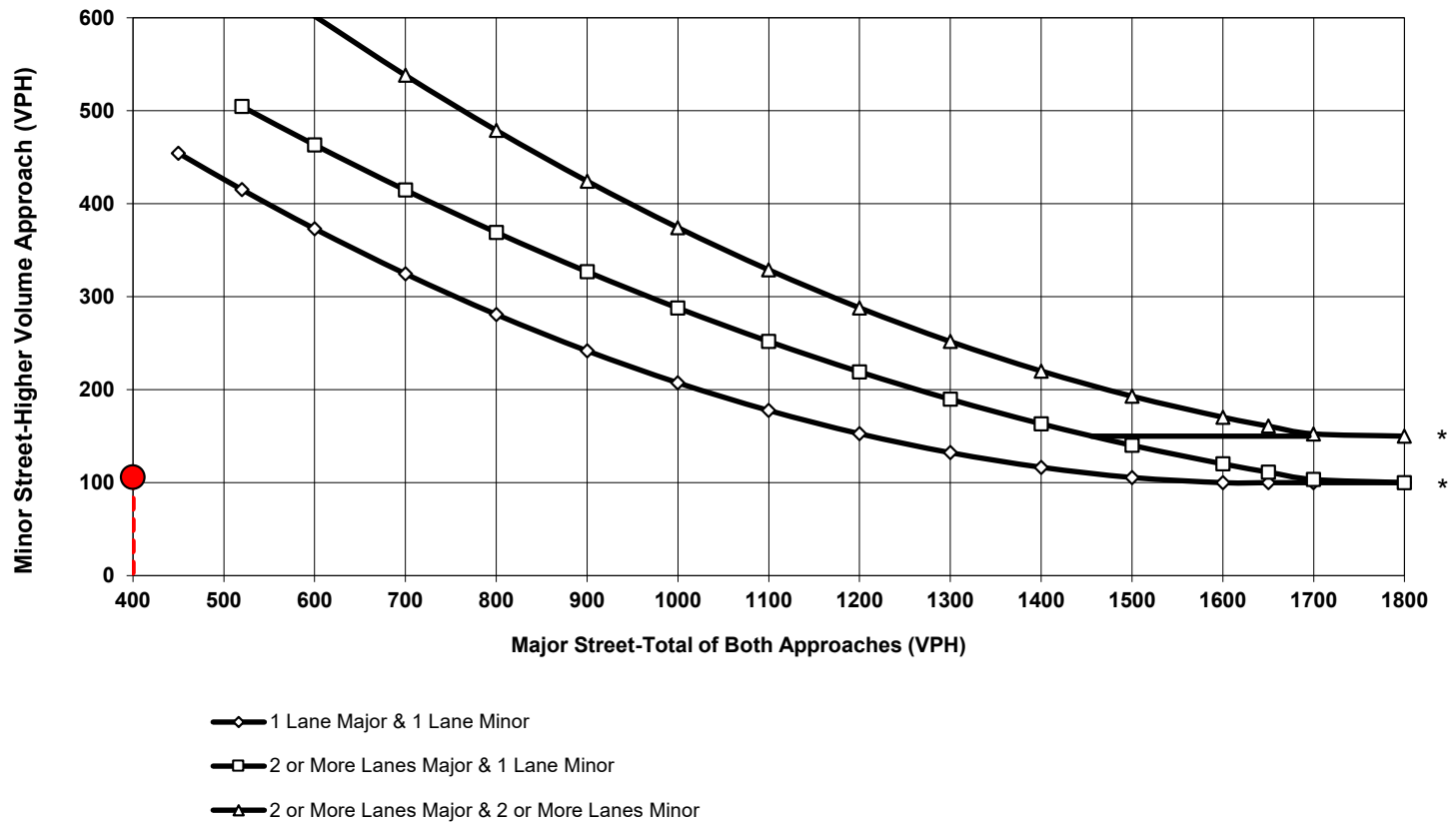
Higher Volume Approach (VPH): **106**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
Sequoia/2nd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **2nd**

Minor Street: **Sequoia**

Total of Both Approaches (VPH): **120**

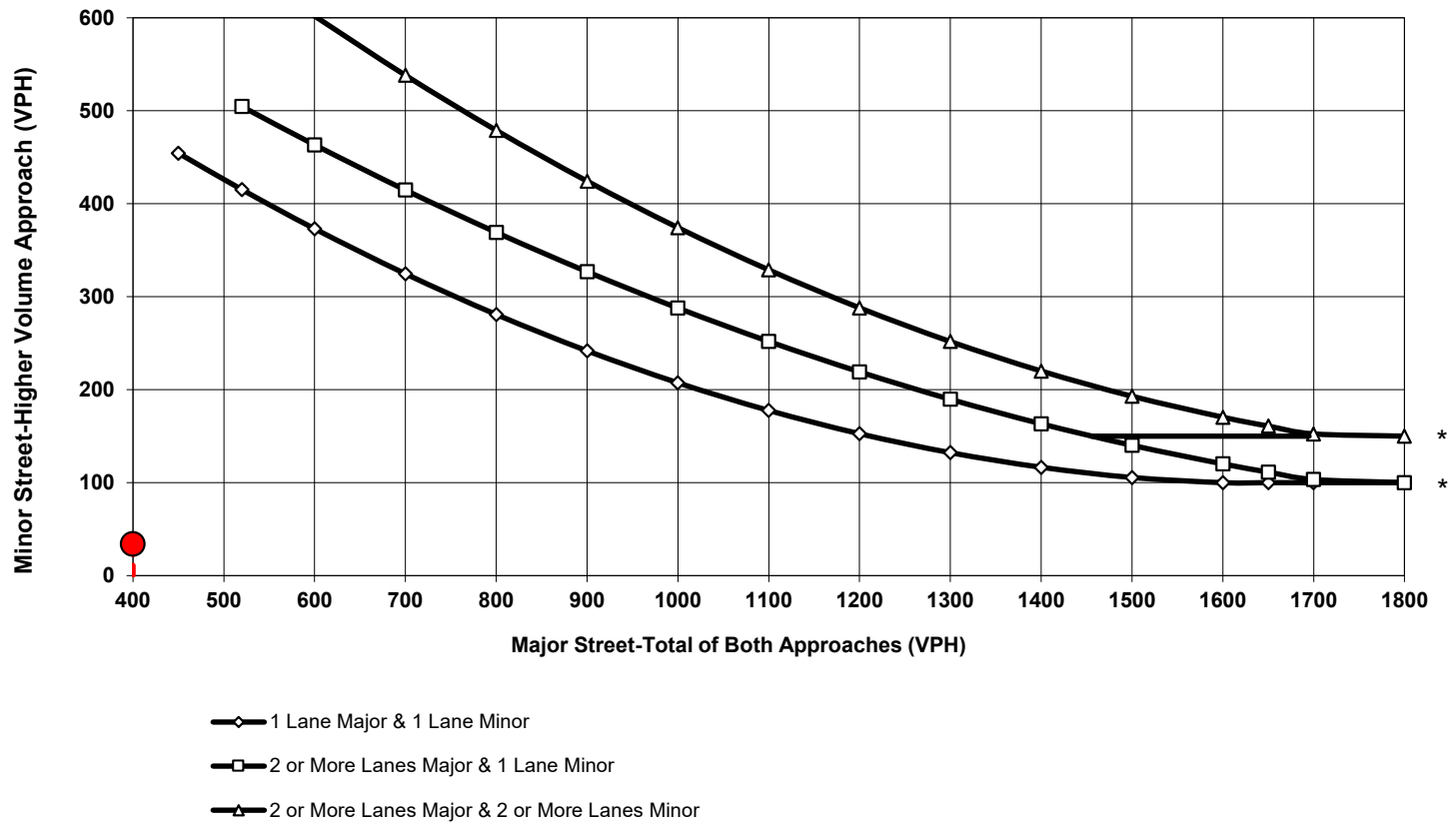
Higher Volume Approach (VPH): **34**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
AM Peak Hour Volume Warrant
Sequoia/2nd Ave**

2021 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **PM**

Major Street: **Sequoia**

Minor Street: **2nd**

Total of Both Approaches (VPH): **180**

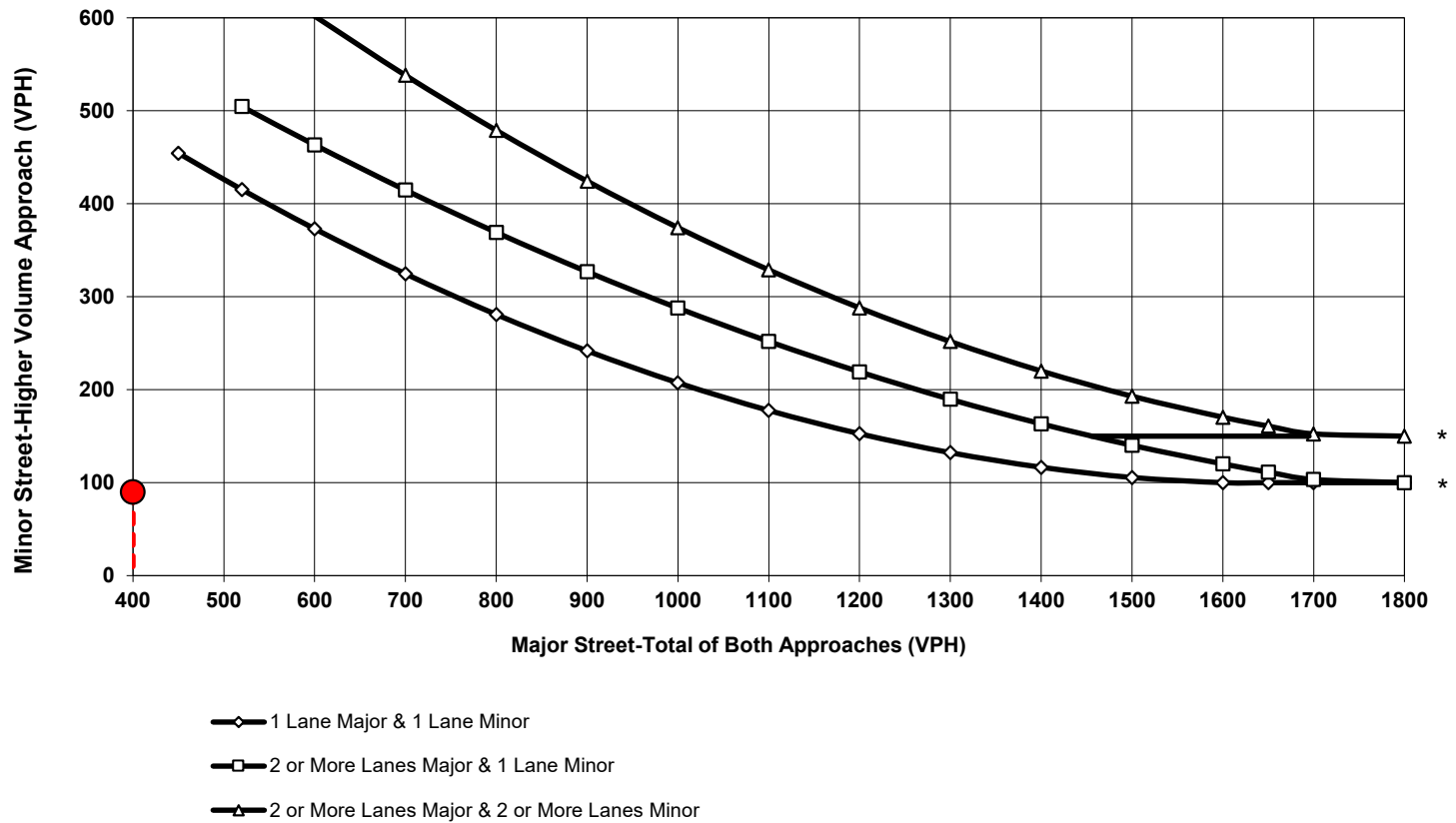
Higher Volume Approach (VPH): **90**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2020 WP Conditions
PM Peak Hour Volume Warrant
Sequoia/2nd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: AM

Major Street: Sequoia

Minor Street: 2nd

Total of Both Approaches (VPH): **152**

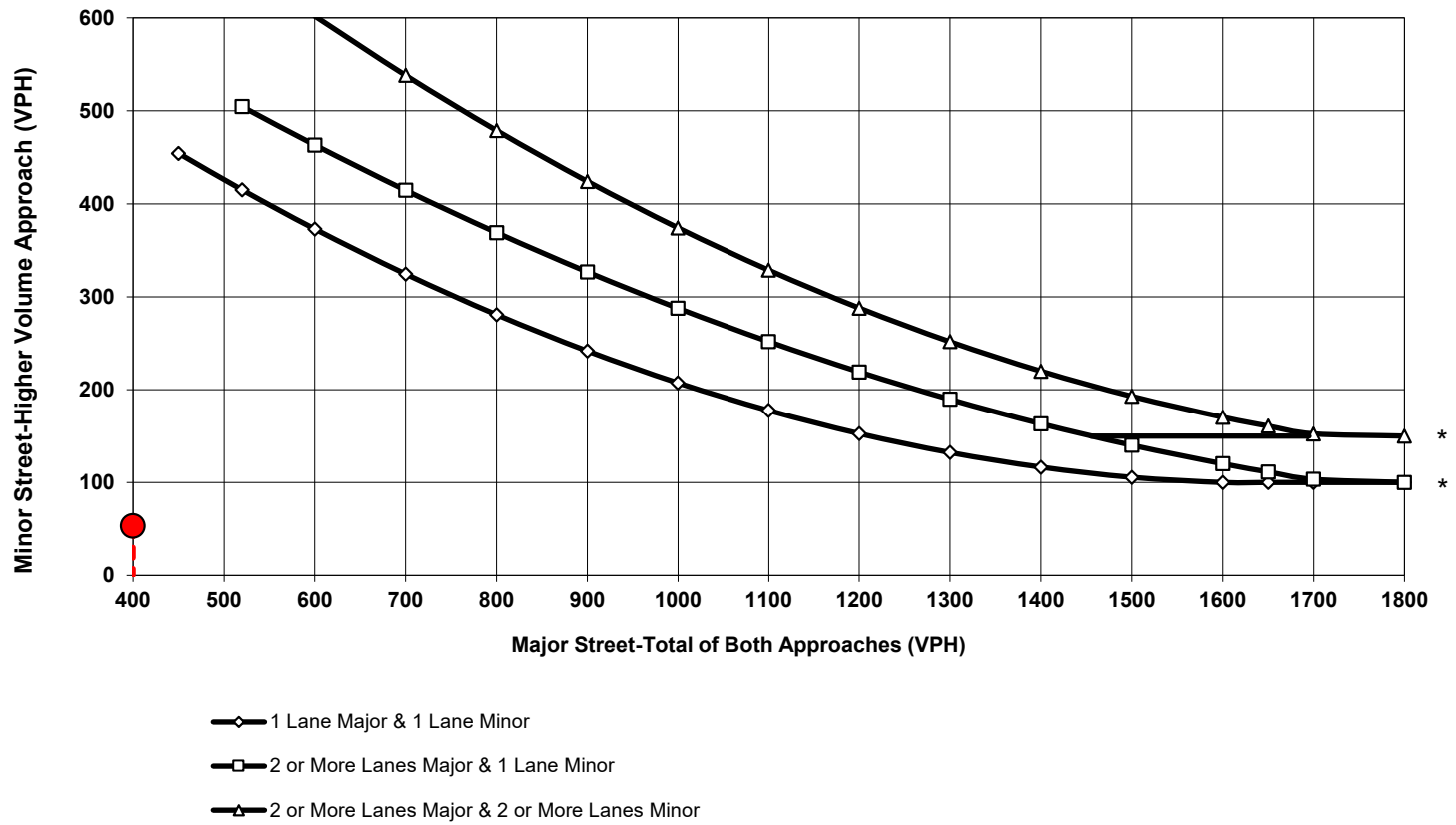
Higher Volume Approach (VPH): **53**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
AM Peak Hour Volume Warrant
Sequoia/2nd Ave**

2030 WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Sequoia

Minor Street: 2nd

Total of Both Approaches (VPH): **228**

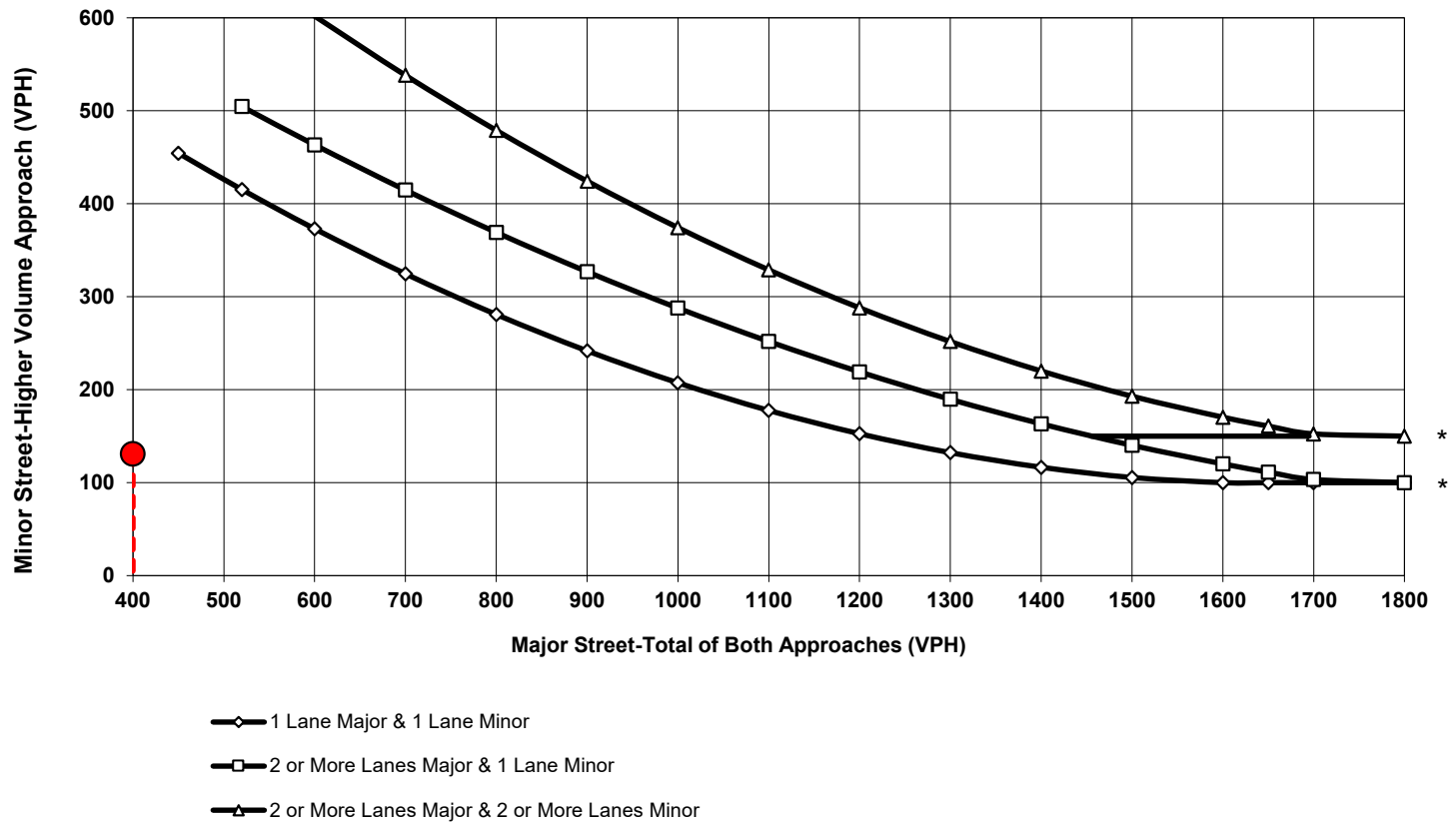
Higher Volume Approach (VPH): **131**

Number of Approach Lanes: **1**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:

150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030 WP Conditions
PM Peak Hour Volume Warrant
Sequoia/2nd Ave**

FOUR HOUR WARRANTS

EP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: Bear Valley

Minor Street: 3rd

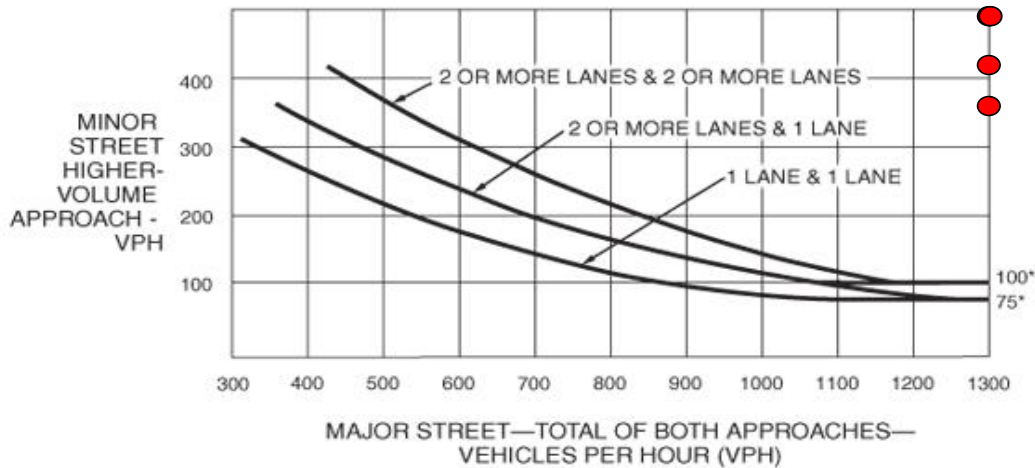
Total of Both Approaches (VPH): **2867**
 Total of Both Approaches (VPH): **3354**
 Total of Both Approaches (VPH): **4201**
 Total of Both Approaches (VPH): **4041**
 Number of Approach Lanes: **2**

Higher Volume Approach (VPH): **369**
 Higher Volume Approach (VPH): **423**
 Higher Volume Approach (VPH): **671**
 Higher Volume Approach (VPH): **643**
 Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
4-Hour Volume Warrant
Bear Valley Rd/3rd Ave**

EP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 2nd

Minor Street: Jasmine

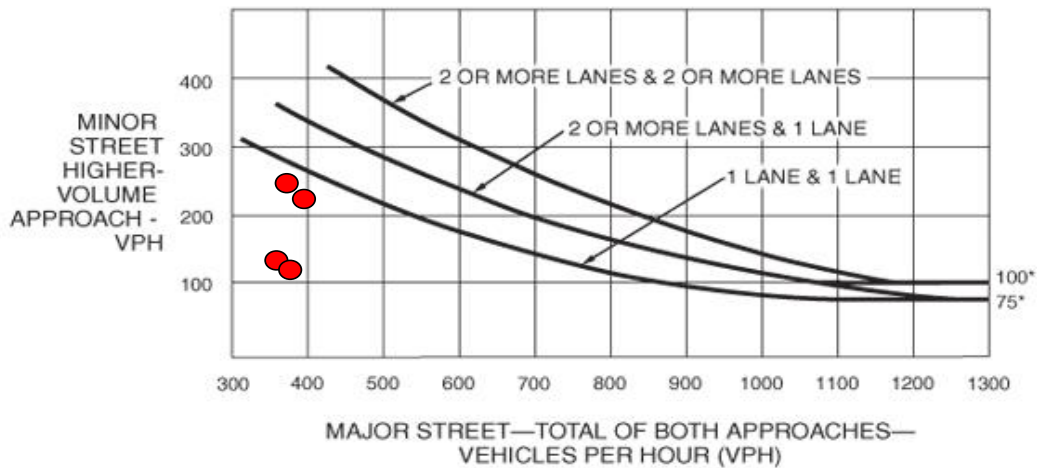
Total of Both Approaches (VPH): **371**
 Total of Both Approaches (VPH): **364**
 Total of Both Approaches (VPH): **399**
 Total of Both Approaches (VPH): **361**
 Number of Approach Lanes: **2**

Higher Volume Approach (VPH): **107**
 Higher Volume Approach (VPH): **125**
 Higher Volume Approach (VPH): **224**
 Higher Volume Approach (VPH): **241**
 Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
4-Hour Volume Warrant
2nd/Jasmine**

EP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: Silica

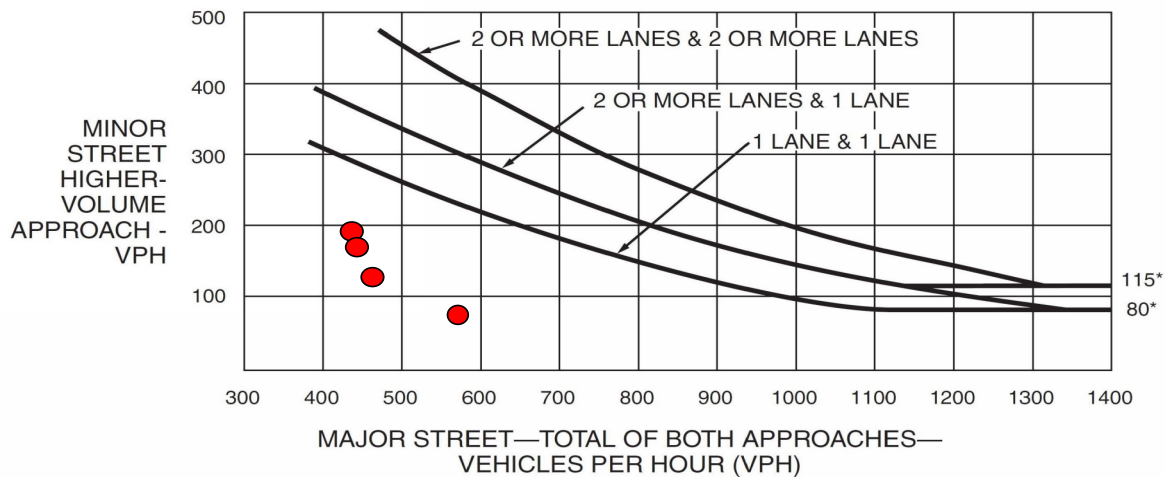
Minor Street: 2nd

Total of Both Approaches (VPH): **573**
 Total of Both Approaches (VPH): **460**
 Total of Both Approaches (VPH): **429**
 Total of Both Approaches (VPH): **438**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **83**
 Higher Volume Approach (VPH): **112**
 Higher Volume Approach (VPH): **185**
 Higher Volume Approach (VPH): **179**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
4-Hour Volume Warrant
Silica/2nd Ave**

EP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 3rd

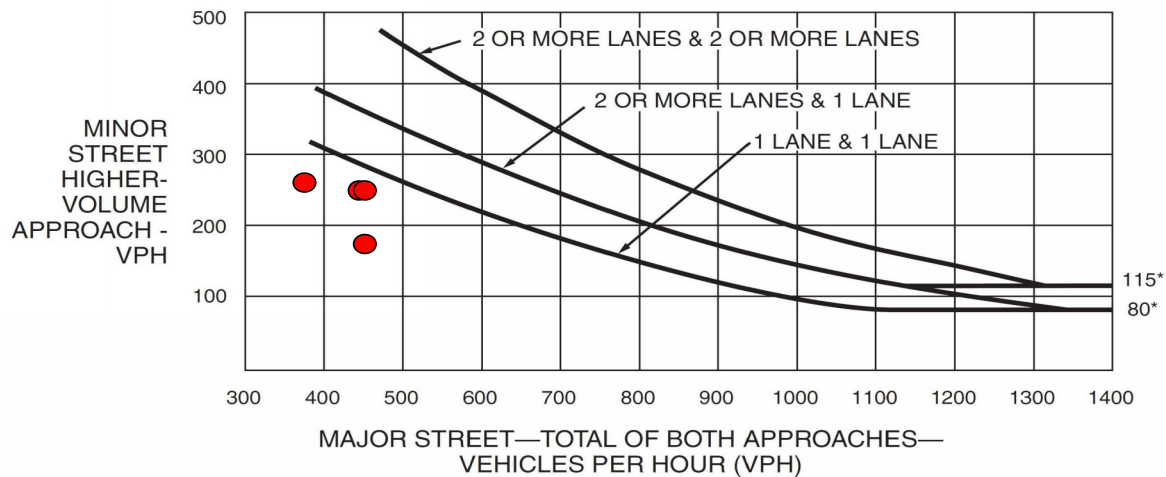
Minor Street: Silica

Total of Both Approaches (VPH): **441**
 Total of Both Approaches (VPH): **373**
 Total of Both Approaches (VPH): **448**
 Total of Both Approaches (VPH): **452**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **169**
 Higher Volume Approach (VPH): **267**
 Higher Volume Approach (VPH): **260**
 Higher Volume Approach (VPH): **251**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
4-Hour Volume Warrant
Silica/3rd Ave**

EP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 3rd

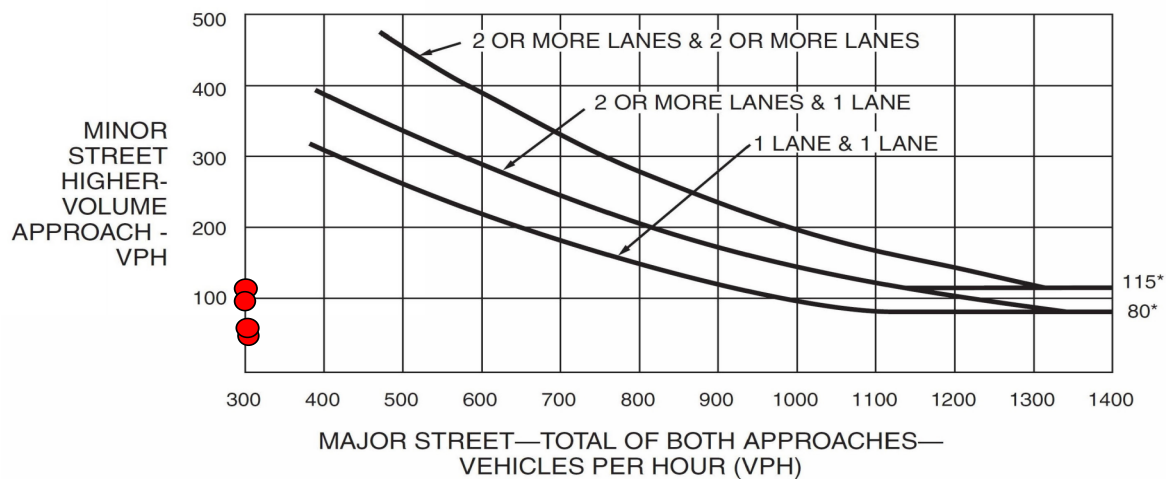
Minor Street: Sequoia

Total of Both Approaches (VPH): **180**
 Total of Both Approaches (VPH): **195**
 Total of Both Approaches (VPH): **257**
 Total of Both Approaches (VPH): **248**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **52**
 Higher Volume Approach (VPH): **65**
 Higher Volume Approach (VPH): **104**
 Higher Volume Approach (VPH): **93**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
4-Hour Volume Warrant
Sequoia/3rd Ave**

EP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 2nd

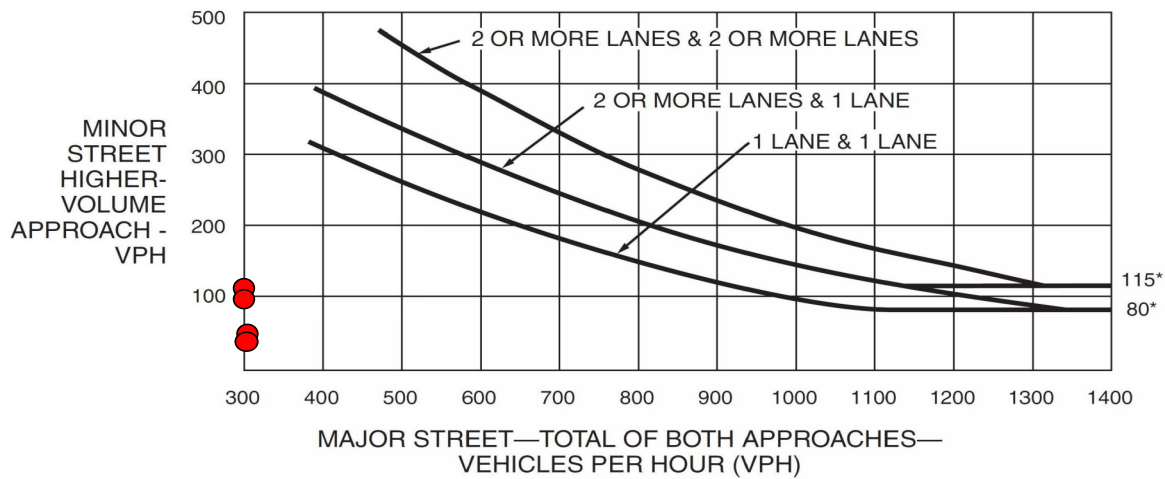
Minor Street: Sequoia

Total of Both Approaches (VPH): **92**
 Total of Both Approaches (VPH): **108**
 Total of Both Approaches (VPH): **173**
 Total of Both Approaches (VPH): **137**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **44**
 Higher Volume Approach (VPH): **46**
 Higher Volume Approach (VPH): **101**
 Higher Volume Approach (VPH): **96**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**EP Conditions
4-Hour Volume Warrant
Sequoia/2nd Ave**

2023 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: Bear Valley

Minor Street: 3rd

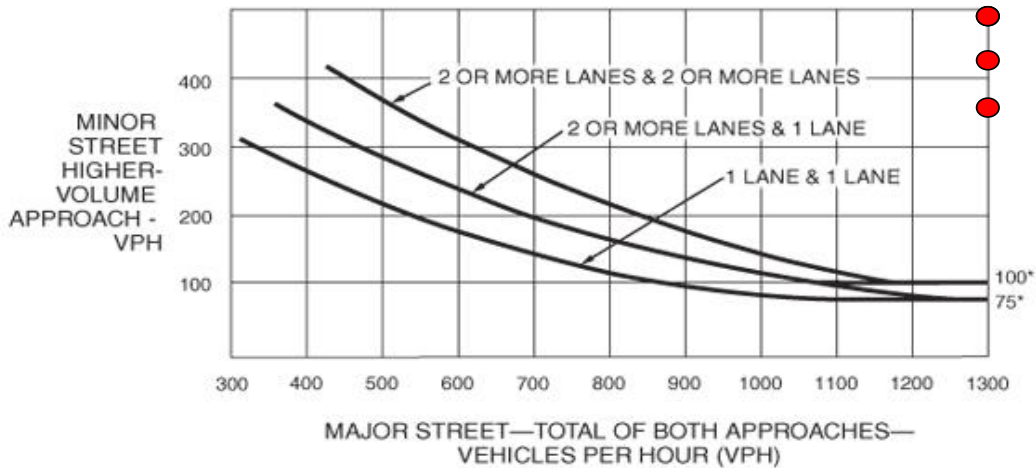
Total of Both Approaches (VPH): **3087**
 Total of Both Approaches (VPH): **3615**
 Total of Both Approaches (VPH): **4527**
 Total of Both Approaches (VPH): **4353**
 Number of Approach Lanes: **2**

Higher Volume Approach (VPH): **393**
 Higher Volume Approach (VPH): **452**
 Higher Volume Approach (VPH): **719**
 Higher Volume Approach (VPH): **689**
 Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2023 WP Conditions
4-Hour Volume Warrant
Bear Valley Rd/3rd Ave**

2023 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 2nd

Minor Street: Jasmine

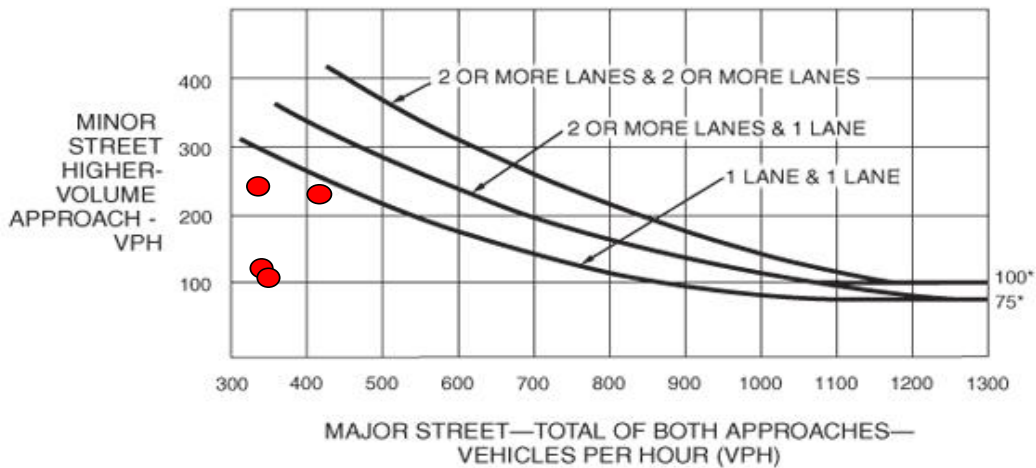
Total of Both Approaches (VPH): **396**
 Total of Both Approaches (VPH): **391**
 Total of Both Approaches (VPH): **427**
 Total of Both Approaches (VPH): **386**
 Number of Approach Lanes: **2**

Higher Volume Approach (VPH): **115**
 Higher Volume Approach (VPH): **134**
 Higher Volume Approach (VPH): **241**
 Higher Volume Approach (VPH): **260**
 Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2023 WP Conditions
4-Hour Volume Warrant
2nd/Jasmine**

2023 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: Silica

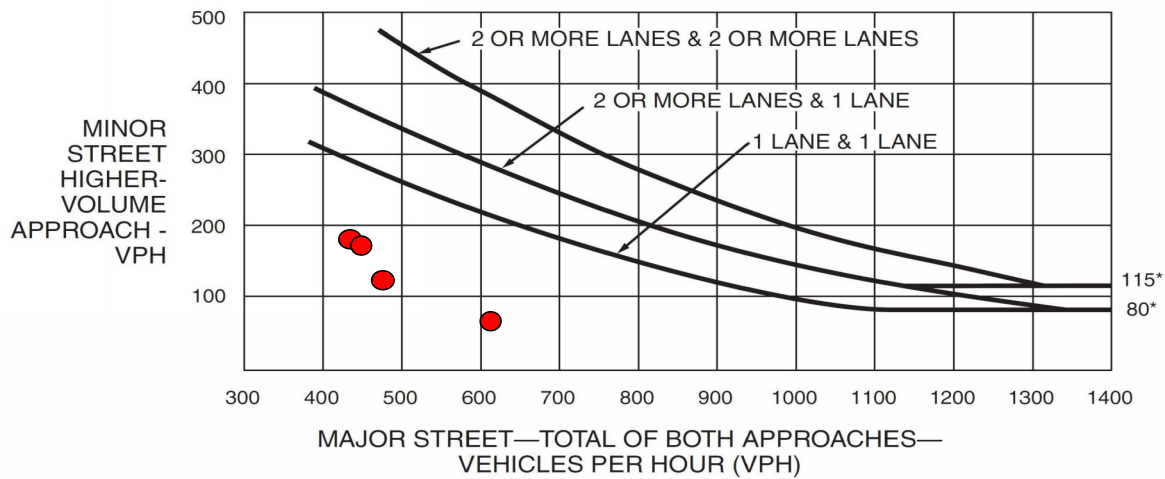
Minor Street: 2nd

Total of Both Approaches (VPH): **620**
 Total of Both Approaches (VPH): **496**
 Total of Both Approaches (VPH): **462**
 Total of Both Approaches (VPH): **472**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **89**
 Higher Volume Approach (VPH): **120**
 Higher Volume Approach (VPH): **199**
 Higher Volume Approach (VPH): **192**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2023 WP Conditions
4-Hour Volume Warrant
Silica/2nd Ave**

2023 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 3rd

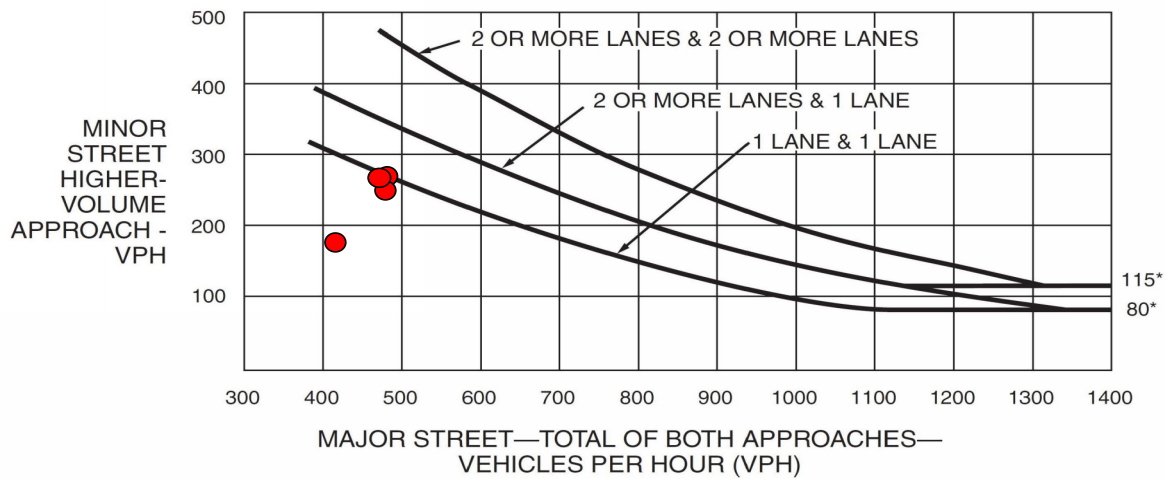
Minor Street: Silica

Total of Both Approaches (VPH): **471**
 Total of Both Approaches (VPH): **402**
 Total of Both Approaches (VPH): **483**
 Total of Both Approaches (VPH): **487**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **183**
 Higher Volume Approach (VPH): **286**
 Higher Volume Approach (VPH): **278**
 Higher Volume Approach (VPH): **269**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2023 WP Conditions
4-Hour Volume Warrant
Silica/3rd Ave**

2023 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 3rd

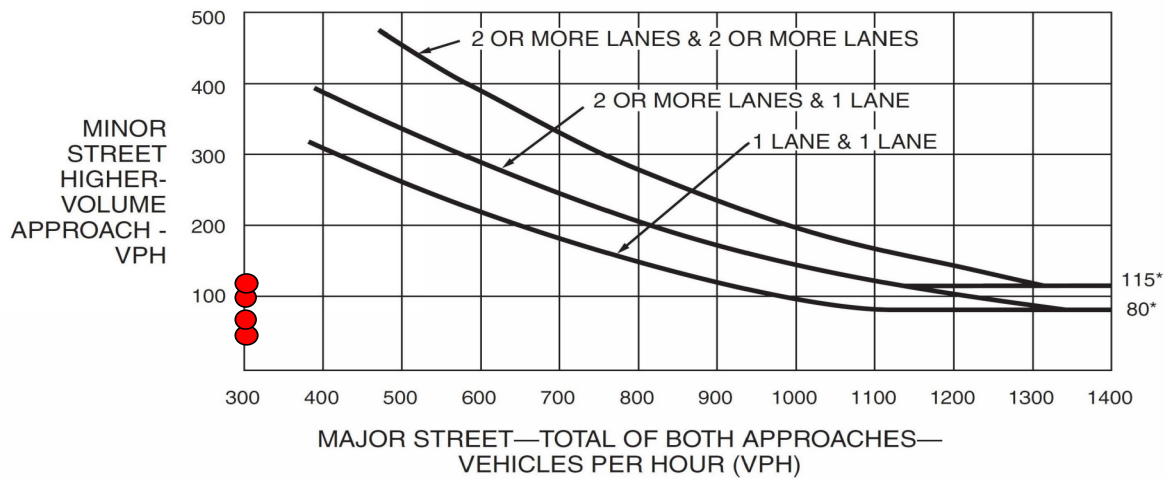
Minor Street: Sequoia

Total of Both Approaches (VPH): **191**
 Total of Both Approaches (VPH): **208**
 Total of Both Approaches (VPH): **276**
 Total of Both Approaches (VPH): **265**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **55**
 Higher Volume Approach (VPH): **70**
 Higher Volume Approach (VPH): **113**
 Higher Volume Approach (VPH): **100**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2023 WP Conditions
4-Hour Volume Warrant
Sequoia/3rd Ave**

2023 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 2nd

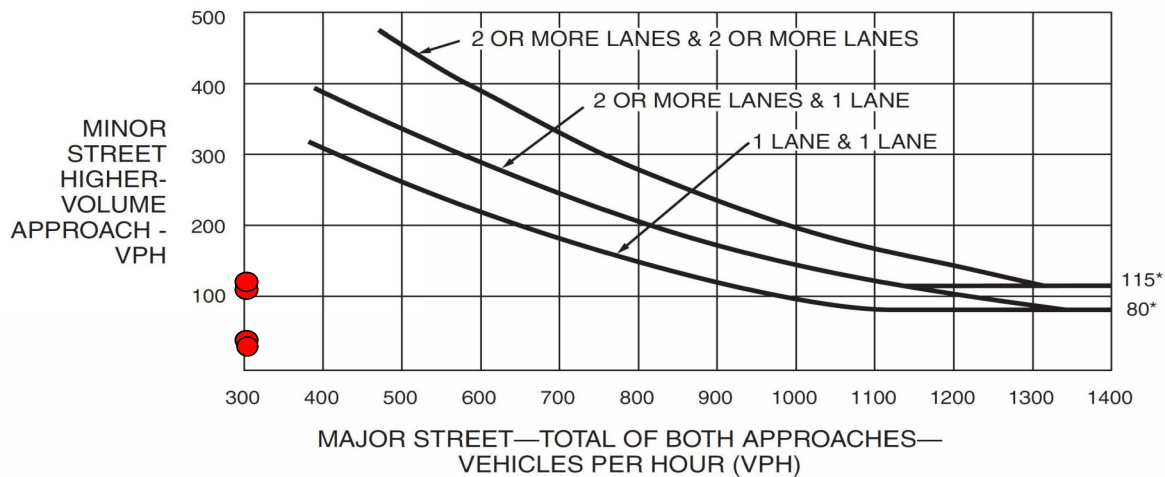
Minor Street: Sequoia

Total of Both Approaches (VPH): **99**
 Total of Both Approaches (VPH): **117**
 Total of Both Approaches (VPH): **187**
 Total of Both Approaches (VPH): **148**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **46**
 Higher Volume Approach (VPH): **48**
 Higher Volume Approach (VPH): **107**
 Higher Volume Approach (VPH): **102**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2023 WP Conditions
4-Hour Volume Warrant
Sequoia/2nd Ave**

2033 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: Bear Valley

Minor Street: 3rd

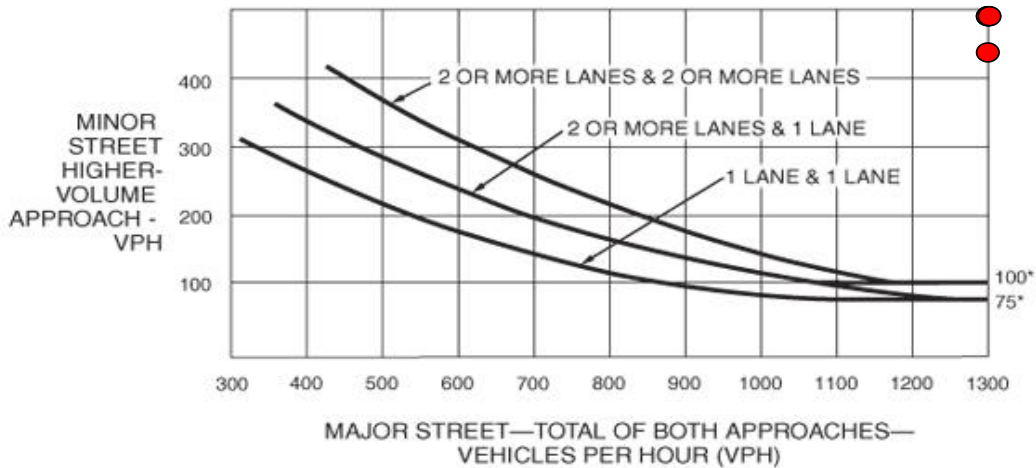
Total of Both Approaches (VPH): **3485**
 Total of Both Approaches (VPH): **4085**
 Total of Both Approaches (VPH): **5118**
 Total of Both Approaches (VPH): **4919**
 Number of Approach Lanes: **2**

Higher Volume Approach (VPH): **437**
 Higher Volume Approach (VPH): **504**
 Higher Volume Approach (VPH): **809**
 Higher Volume Approach (VPH): **774**
 Number of Approach Lanes: **1**

SIGNAL WARRANT SATISFIED

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2033 WP Conditions
4-Hour Volume Warrant
Bear Valley Rd/3rd Ave**

2033 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: **2nd**

Minor Street: **Jasmine**

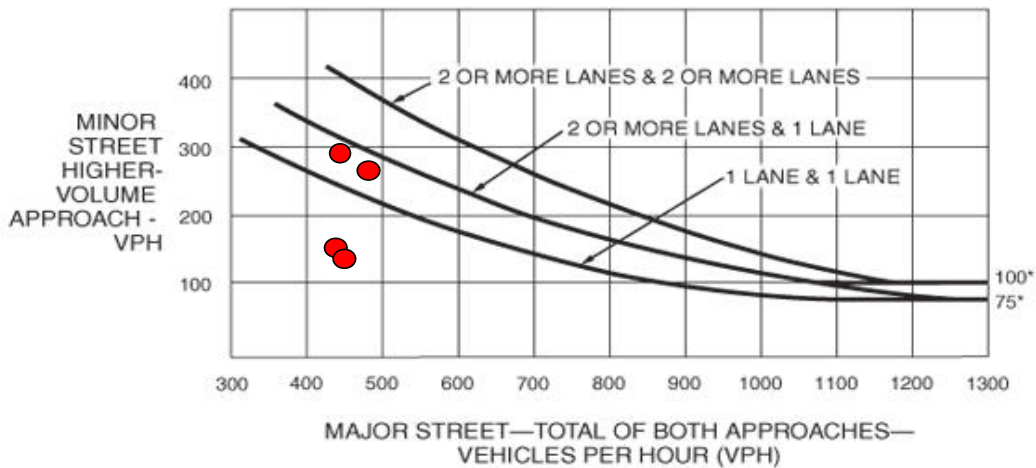
Total of Both Approaches (VPH): **445**
 Total of Both Approaches (VPH): **436**
 Total of Both Approaches (VPH): **477**
 Total of Both Approaches (VPH): **430**
 Number of Approach Lanes: **2**

Higher Volume Approach (VPH): **128**
 Higher Volume Approach (VPH): **151**
 Higher Volume Approach (VPH): **271**
 Higher Volume Approach (VPH): **291**
 Number of Approach Lanes: **2**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2033 WP Conditions
4-Hour Volume Warrant
2nd/Jasmine**

2033 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: Silica

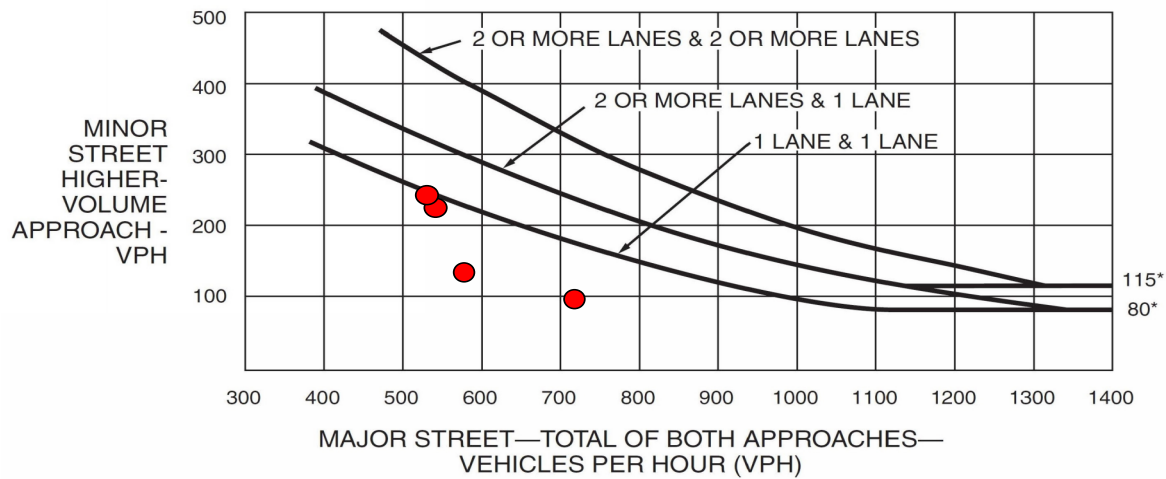
Minor Street: 2nd

Total of Both Approaches (VPH): **702**
 Total of Both Approaches (VPH): **563**
 Total of Both Approaches (VPH): **523**
 Total of Both Approaches (VPH): **535**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **98**
 Higher Volume Approach (VPH): **133**
 Higher Volume Approach (VPH): **223**
 Higher Volume Approach (VPH): **216**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2033 WP Conditions
4-Hour Volume Warrant
Silica/2nd Ave**

2033 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 3rd

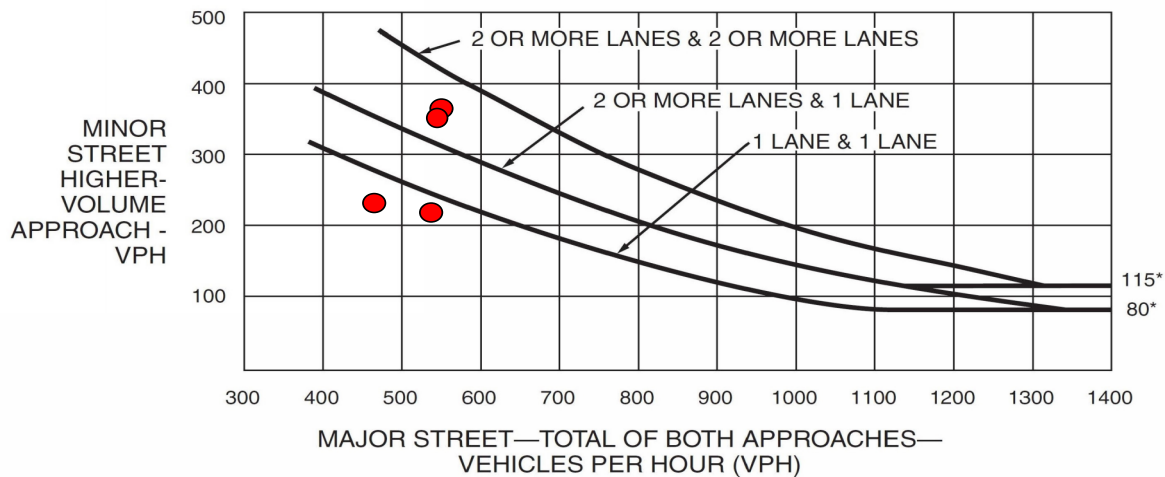
Minor Street: Silica

Total of Both Approaches (VPH): **536**
 Total of Both Approaches (VPH): **464**
 Total of Both Approaches (VPH): **552**
 Total of Both Approaches (VPH): **557**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **210**
 Higher Volume Approach (VPH): **236**
 Higher Volume Approach (VPH): **364**
 Higher Volume Approach (VPH): **381**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2033 WP Conditions
4-Hour Volume Warrant
Silica/3rd Ave**

2033 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 3rd

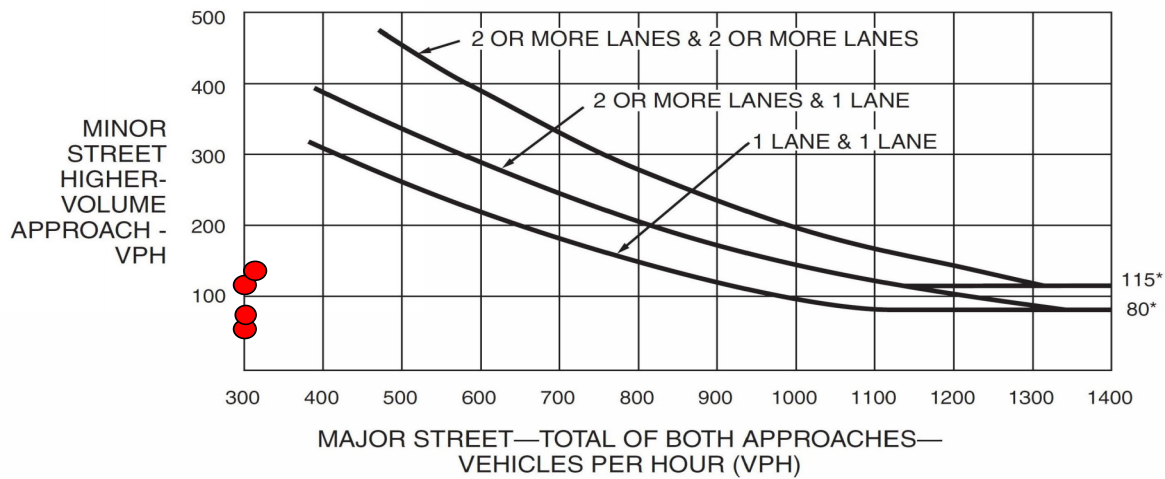
Minor Street: Sequoia

Total of Both Approaches (VPH): **215**
 Total of Both Approaches (VPH): **233**
 Total of Both Approaches (VPH): **308**
 Total of Both Approaches (VPH): **298**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **62**
 Higher Volume Approach (VPH): **79**
 Higher Volume Approach (VPH): **128**
 Higher Volume Approach (VPH): **114**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2033 WP Conditions
4-Hour Volume Warrant
Sequoia/3rd Ave**

2033 WP CONDITIONS 4-HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Major Street: 2nd

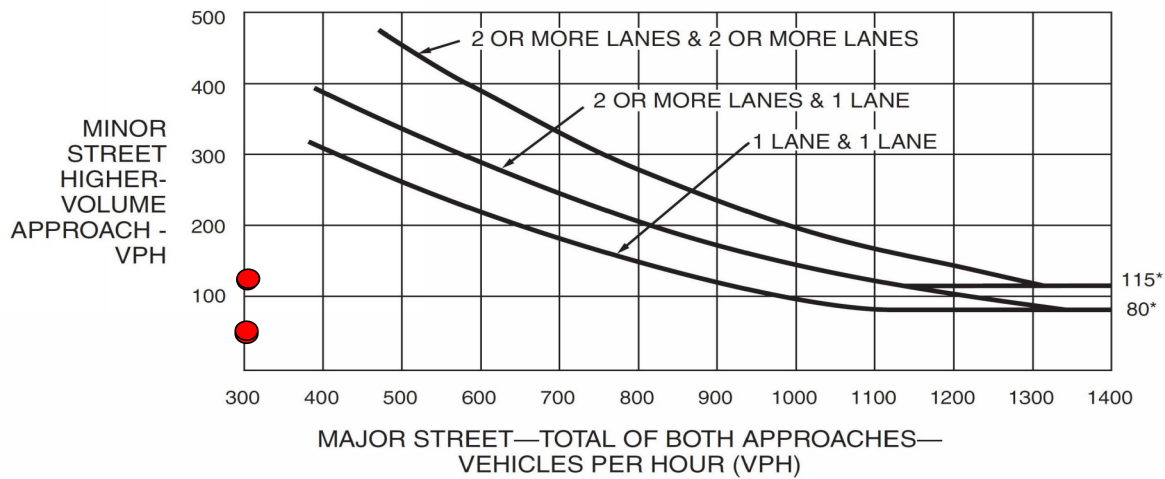
Minor Street: Sequoia

Total of Both Approaches (VPH): **112**
 Total of Both Approaches (VPH): **132**
 Total of Both Approaches (VPH): **212**
 Total of Both Approaches (VPH): **170**
 Number of Approach Lanes: **1**

Higher Volume Approach (VPH): **51**
 Higher Volume Approach (VPH): **52**
 Higher Volume Approach (VPH): **120**
 Higher Volume Approach (VPH): **114**
 Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**2033 WP Conditions
4-Hour Volume Warrant
Sequoia/2nd Ave**