

CHURCH OF THE WOODS

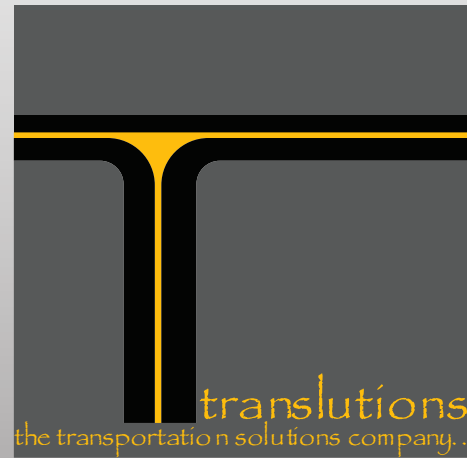
TRAFFIC IMPACT ANALYSIS

SEPTEMBER 12, 2018

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TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Purpose of the Traffic Study and Study Objectives	1
1.2 Project Location & Study Area	1
1.3 Analysis Scenarios	5
2.0 PROJECT DESCRIPTION	5
2.1 Project Trip Generation	5
2.2 Project Trip Distribution & Assignment	5
3.0 LOS DEFINITIONS, PROCEDURES, AND THRESHOLDS	9
3.1 Levels of Service	9
3.2 Levels of Service Thresholds	9
4.0 VOLUME DEVELOPMENT METHODOLOGY	10
4.1 Existing Traffic Volumes	10
4.2 Opening Year (2018) Traffic Volumes	10
4.3 Cumulative (2018) Traffic Volumes	10
4.4 Year 2040 Traffic Volumes	10
4.5 Existing, Opening Year (2018), Cumulative (2018), and Year 2040 With Project Traffic Volumes	13
5.0 EXISTING CONDITIONS	13
5.1 Existing Roadway Conditions	13
5.2 Existing Transit Service	13
5.3 Existing Pedestrian & Bicycle Facilities	14
5.4 Existing Intersections Levels of Service	14
5.5 Existing Plus Project Intersections Levels of Service	14
6.0 OPENING YEAR (2018) CONDITIONS	20
6.1 Opening Year (2018) Roadway Conditions	20
6.2 Opening Year (2018) Transit Service	20
6.3 Opening Year (2018) Pedestrian & Bicycle Facilities	20
6.4 Opening Year (2018) Intersections Levels of Service	20
6.5 Opening Year (2018) With Project Intersections Levels of Service	20
6.6 Cumulative (2018) Intersections Levels of Service	24
6.7 Cumulative (2018) With Project Intersections Levels of Service	24
7.0 YEAR 2040 CONDITIONS	24
7.1 Year 2040 Roadway Conditions	24
7.2 Year 2040 Transit Service	24
7.3 Year 2040 Pedestrian & Bicycle Facilities	24

7.4	Year 2040 Intersections Levels of Service	29
7.5	Year 2040 With Project Intersections Levels of Service	29
8.0	CIRCULATION IMPROVEMENTS	29
8.1	Existing Plus Project Circulation Improvements	33
8.2	Opening Year (2018) With Project Circulation Improvements	33
8.3	Cumulative (2018) With Project Circulation Improvements	33
8.4	Year 2040 With Project Circulation Improvements	38
9.0	QUEUING ANALYSIS	42
10.0	IMPACT ANALYSIS FOR CEQA DETERMINATION	42
11.0	SUMMARY & CONCLUSIONS	49

APPENDICES

- Appendix A: Traffic Counts
- Appendix B: Detailed Volume Development Worksheets
- Appendix C: Level of Service Worksheets
- Appendix D: Peak Hour Signal Warrant Analysis
- Appendix E: Project Fair-Share Calculation
- Appendix F: Queuing Analysis

FIGURES AND TABLES

FIGURES

Figure 1: Regional Project Location	2
Figure 2: Site Plan.....	3
Figure 3: Study Area Intersections	4
Figure 4: Project Trip Distribution.....	7
Figure 5: Project Trip Assignment	8
Figure 6: Cumulative Projects Trip Assignment	12
Figure 7: Existing Transit Routes	15
Figure 8: Existing Intersection Lane Geometrics and Stop Control.....	16
Figure 9: Existing Peak Hour Traffic Volumes.....	17
Figure 10: Existing Plus Project Peak Hour Traffic Volumes.....	19
Figure 11: Opening Year (2018) Peak Hour Traffic Volumes.....	21
Figure 12: Opening Year (2018) With Project Peak Hour Traffic Volumes	23
Figure 13: Cumulative (2018) Peak Hour Traffic Volumes.....	25
Figure 14: Cumulative (2018) With Project Peak Hour Traffic Volumes.....	27
Figure 15: Planned Bike Lanes	28
Figure 16: Year 2040 Peak Hour Traffic Volumes.....	30
Figure 17: Year 2040 With Project Peak Hour Traffic Volumes	32
Figure 18: Existing Plus Project With Improvements Intersection Geometrics and Stop Control.....	35
Figure 19: Opening Year (2018) With Project With Improvements Intersection Geometrics and Stop Control.....	37
Figure 20: Cumulative (2018) With Project With Improvements Intersection Geometrics and Stop Control.....	40

Figure 21: Year 2040 With Project With Improvements Intersection Geometrics and Stop Control..... 44

TABLES

Table A: Project Trip Generation..... 6
Table B: Level Of Service Criteria 9
Table C: Cumulative Projects Trip Generation..... 11
Table D: Existing Intersection Levels of Service 18
Table E: Opening Year (2018) Intersection Levels of Service..... 22
Table F: Cumulative (2018) Intersection Levels of Service 26
Table G: Year 2040 Intersection Levels of Service 31
Table H: Existing Plus Project With Improvements Intersection Levels of Service 34
Table I: Opening Year (2018) With Project With Improvements Intersection Levels of Service..... 36
Table J: Cumulative (2018) With Project With Improvements Intersection Levels of Service 39
Table K: Year 2040 With Project With Improvements Intersection Levels of Service 43
Table L: Existing Queuing Analysis 45
Table M: Opening Year (2018) Queuing Analysis..... 46
Table N: Cumulative Queuing Analysis..... 47
Table O: Year 2040 Queuing Analysis 48

1.0 INTRODUCTION

This report presents the methodology, findings and conclusions of the traffic impact analysis (TIA) prepared for the proposed Church of the Woods project. The project will be located on the north side of State Route 18 (SR-18), between Bear Springs Road and Daley Canyon Road in the unincorporated community of Rimforest in San Bernardino County. The project proposes the construction of a 600 seat Church on approximately 26.87 acres.

1.1 Purpose of the Traffic Study and Study Objectives

This report is intended to satisfy the requirements for a TIA established by the San Bernardino County Congestion Management Program (CMP), adopted November 3, 1993, and last revised in 2016, as well as the requirements for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA). The San Bernardino County CMP is implemented by the San Bernardino County Transportation Authority (SBCTA).

The CMP requires analysis of off-site intersections potentially affected by the project, which the CMP defines as intersections at which the project is forecast to add 50 or more peak hour trips. This report evaluates 18 intersections under eight analysis scenarios and proposes circulation improvements for intersections that operate or are forecast to operate at unsatisfactory levels of services.

1.2 Project Location & Study Area

As stated earlier, the project is located on the north side of State Route 18, between Bear Springs Road and Daley Canyon Road in the unincorporated community of Rimforest in San Bernardino County. The project proposes the construction of a 600 seat Church and sports field. Figure 1 shows the regional location of the project. The project is planned to open in 2018. Figure 2 illustrates the site plan of the proposed project. Based on discussion with Caltrans and County staff, this report analyzes traffic operations at the following 18 intersections:

1. Crest Forest Drive/State Route 18;
2. Lake Gregory Drive/State Route 189;
3. Lake Gregory Drive/State Route 18;
4. Bear Springs Road/State Route 18;
5. Project Driveway/State Route 18;
6. Lake Forest Drive/Grass Valley Road;
7. State Route 189/Grass Valley Road;
8. Daley Canyon Road/State Route 189;
9. Daley Canyon Road/Daley Canyon Access Road;
10. Daley Canyon Road/State Route 18;
11. Daley Canyon Access Road/State Route 18;
12. Bay Road/State Route 189;
13. Bay Road/Little Bear Road;
14. Rocky Point Road/State Route 189;
15. Greenway Drive/State Route 189;
16. State Route 173/Crest Estates Drive;
17. State Route 173/State Route 18; and
18. Pine Avenue/State Route 18.

Figure 3 illustrates intersections included in the TIA.

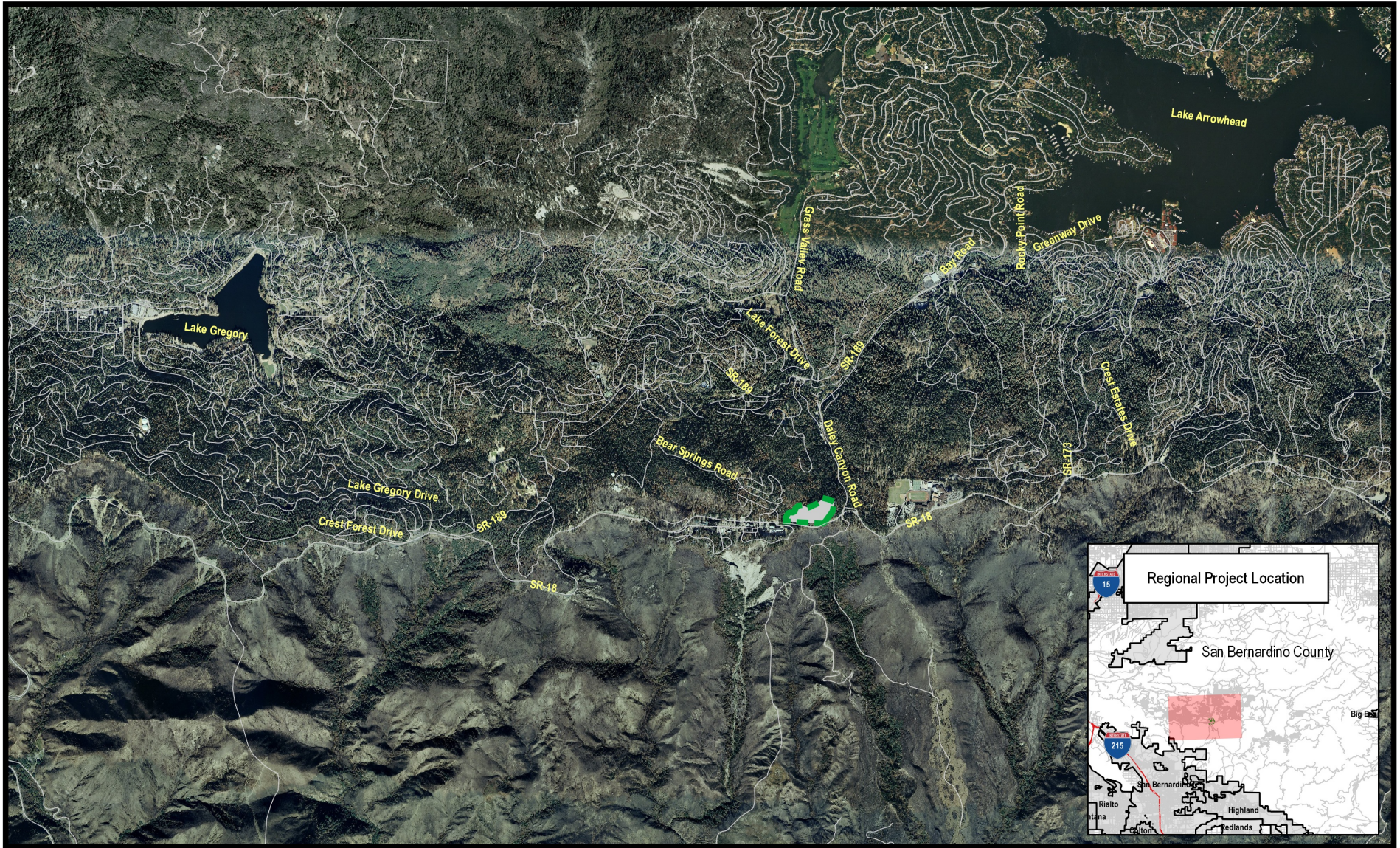


FIGURE 1

**Church of the Woods
Regional Project Location**

Legend

 Project Boundary



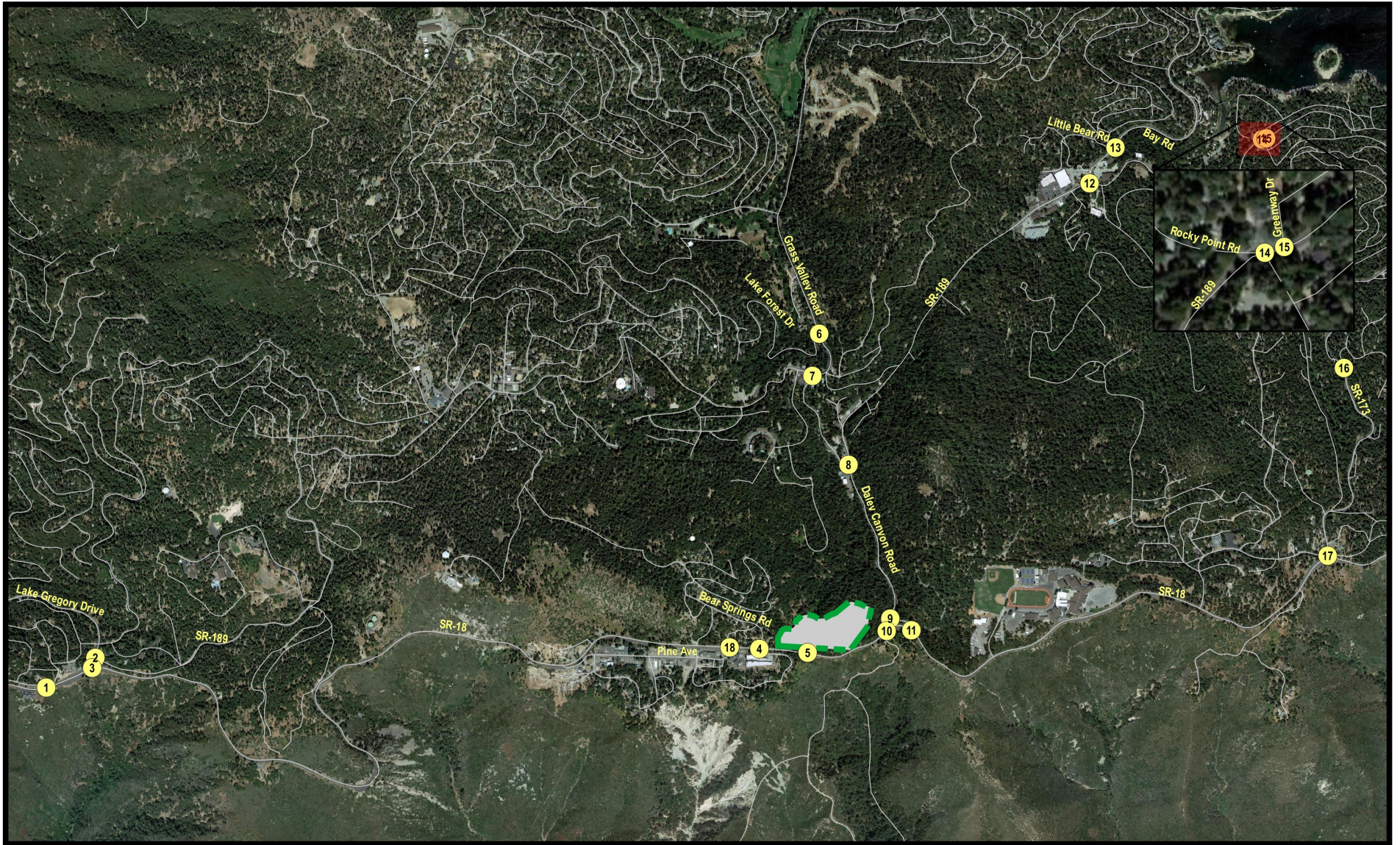


FIGURE 3

Church of the Woods
Study Area Intersections

Legend

- Study Area Intersections
- Project Boundary



1.3 Analysis Scenarios

Based on discussion with Caltrans and County staff, this report analyzes traffic conditions for the following scenarios:

1. Existing Conditions;
2. Existing Plus Project Conditions;
3. Opening Year (2018) Conditions;
4. Opening Year (2018) With Project Conditions;
5. Cumulative (2018) Conditions;
6. Cumulative (2018) With Project Conditions;
7. Year 2040 Conditions; and
8. Year 2040 With Project Conditions.

The peak hours analyzed in this report were determined based on discussion with County staff and the unique operations of the site. Since the majority of traffic generated by the project on Saturday will be from the church's playing fields, the Saturday peak hour is defined as the one hour of highest traffic volumes occurring between 10:30 a.m. to 12:30 p.m. Furthermore, the majority of traffic generated by the project on Sunday will be from the church facility. The Sunday peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 a.m. and 11:00 a.m.

2.0 PROJECT DESCRIPTION

The project site is currently an undeveloped lot consisting over 26.87 acres. As shown in previously referenced Figure 2 – Site Plan, the majority of the site is planned to accommodate a 600-seat church facility and 54,600 square foot sports facility. Access to the project site will be provided via one project driveway. The project driveway will be a signalized intersection on State Route 18 and will include full-access into and out of the project. The project will also widen SR-18 for approximately 300 feet upstream and downstream of the project driveway to include an eastbound left-turn lane and westbound deceleration/acceleration lane. Signage will be included at the westbound right-turn lane to discourage traffic from using the lane during peak hours of congestion. It is understood that prior to construction of the traffic signal, the project will be required to go through the Caltrans Intersection Control Evaluation process.

It should also be noted that an additional driveway to the east of the project driveway will be for emergency access vehicles only and will be gated. This driveway is not included in this analysis.

2.1 Project Trip Generation

Trip generation for the project is based on trip generation rates from the Institute of Transportation Engineers' (ITE) *Trip Generation* (9th Edition) and are based on Land Use 560 - "Church" and Land Use 488 "Soccer Complex".

Table A shows the calculation of the project trip generation for Saturday and Sunday conditions. As shown in Table A, the proposed project is forecast to generate 390 peak hour trips on Saturday, 394 peak hour trips on Sunday, 657 daily trips on Saturday, and 1,112 daily trips on Sunday.

2.2 Project Trip Distribution & Assignment

Trip distribution patterns for the proposed project were developed based on location of local and regional destinations and in consultation with County staff. The project trip generation for Saturday and Sunday peak hour conditions was applied to the trip distribution patterns for the proposed project to develop the trip assignment for new project trips. Figure 4 shows the trip distribution for project trips and Figure 5 shows the Saturday and Sunday project trip assignment at the study intersections.

Table A - Project Trip Generation

Land Use	Units	Saturday				Sunday				
		In	Out	Total	Daily	In	Out	Total	Daily	
Soccer Complex	1	Field ¹								
Trip Generation Rates ²			14.563	15.777	30.34	117.430	11.521	16.579	28.100	1.850
PCE Inbound/Outbound Splits			48%	52%	100%	50%/50%	41%	59%	100%	50%/50%
Trip Generation			15	16	30	117	12	17	28	2
Church	600	Seats ²								
Trip Generation Rates ²			0.258	0.342	0.600	0.900	0.305	0.305	0.610	1.850
PCE Inbound/Outbound Splits			43%	57%	100%	50%/50%	50%	50%	100%	50%/50%
Trip Generation			155	205	360	540	183	183	366	1,110
Total Trip Generation			170	221	390	657	195	200	394	1,112

¹ Rates based on peak hour of the generator for Land Use 488 "Soccer Complex" from Institute of Transportation Engineers (ITE) *Trip Generation*, (9th Edition).

² Rates based on peak hour of the generator for Land Use 560 "Church" from ITE *Trip Generation*, (9th Edition).

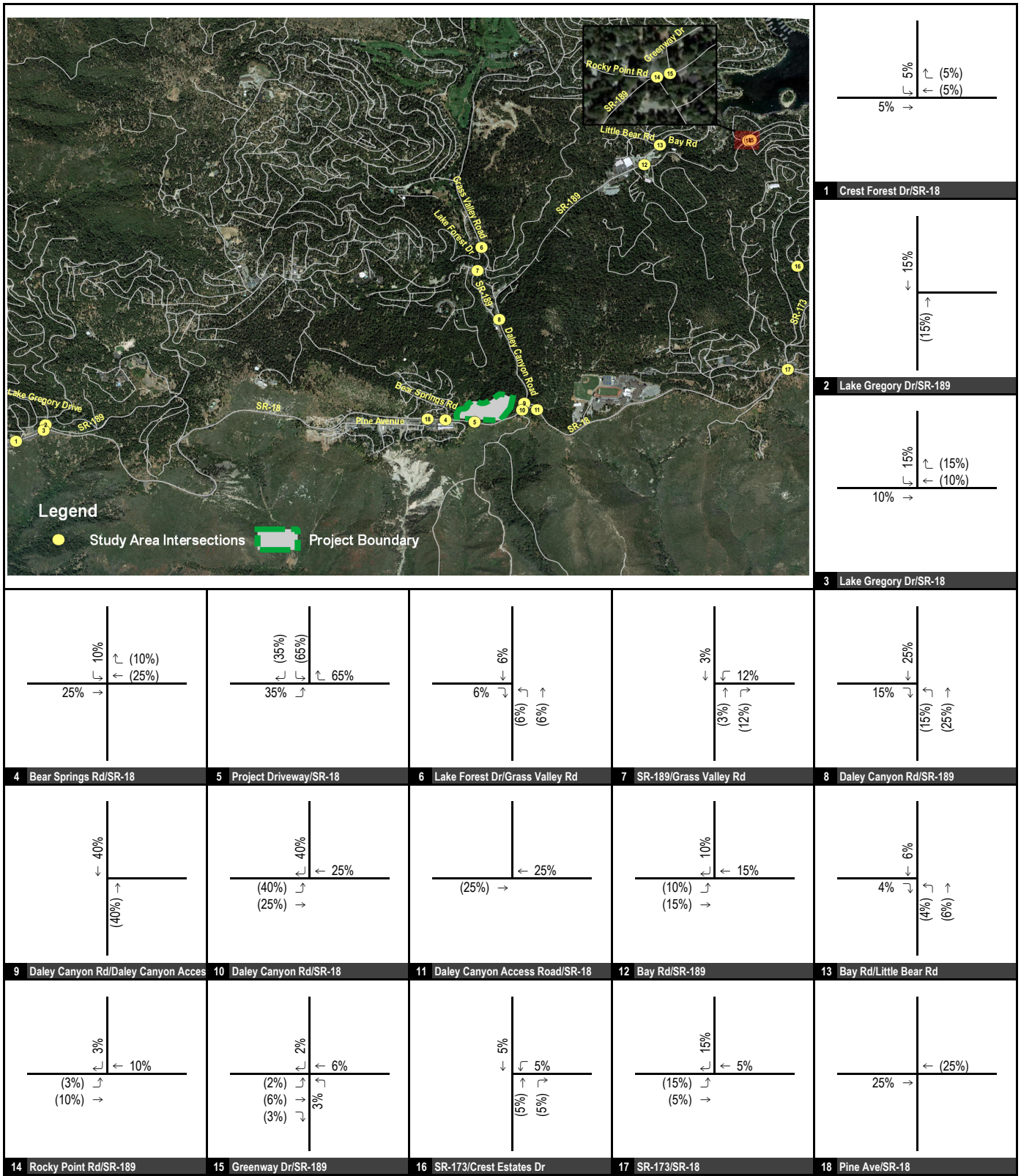


FIGURE 4

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

**Church of the Woods
Project Trip Distribution**



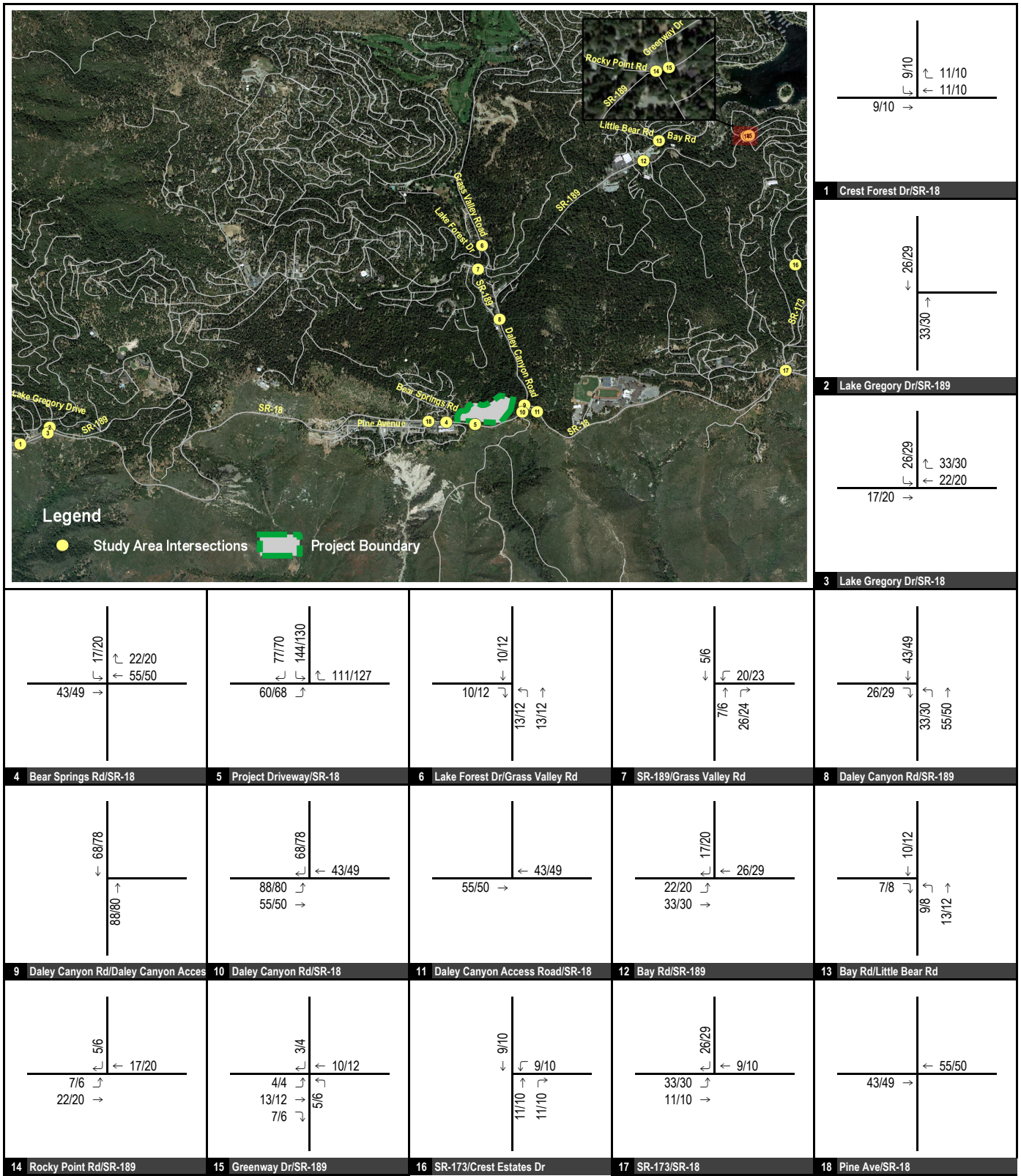


FIGURE 5

XX/YY Saturday/Sunday Trips

**Church of the Woods
Project Trip Assignment**



3.0 LOS DEFINITIONS, PROCEDURES, AND THRESHOLDS

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

3.1 Levels of Service

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

Table B: Level Of Service Criteria

LOS	Description of Drivers' Perception and Traffic Operation	Delay in Seconds	
		Un-signalized	Signalized
A	This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10	≤ 10
B	This level is assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	> 10 and ≤ 15	> 10 and ≤ 20
C	This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 15 and ≤ 25	> 20 and ≤ 35
D	This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	> 25 and ≤ 35	> 35 and ≤ 55
E	This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 35 and ≤ 50	> 55 and ≤ 80
F	This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 50	> 80

Source: *Highway Capacity Manual, 6th Edition*

3.2 Levels of Service Thresholds

For intersections under the jurisdiction of the County of San Bernardino, LOS C is the minimum level of service standard for intersection operations. Caltrans considers LOS D as the minimum level of service standard for all intersections under its jurisdiction.

The intersections of Lake Forest Drive/Grass Valley Road, Daley Canyon Road/Daley Canyon Access Road, and Bar Road/Little Bear Road are under the jurisdiction of the County of San Bernardino; therefore, intersections operating at

LOS D, E, or F are required to be mitigated to LOS C or better. All remaining study intersections are under the jurisdiction of Caltrans; therefore, intersections operating at LOS E or F are required to be mitigated to LOS D or better.

4.0 VOLUME DEVELOPMENT METHODOLOGY

Forecast traffic volumes at study intersections were developed based on discussion with County staff and consistent with CMP guidelines.

4.1 Existing Traffic Volumes

Existing traffic volumes are based on peak hour intersection turn movement counts collected by National Data and Surveying Services in May 2017. Vehicle classification counts (e.g., passenger vehicle, 2-axle truck, 3-axle truck, and 4 or more axle truck), were conducted at the intersections of Lake Gregory Drive/SR-18, Bear Springs Road/SR-18, SR-189/Grass Valley Road, Daley Canyon Road/SR-18, Bay Road/SR-189, SR-173/SR-18, and Pine Avenue/SR-18. Consistent with the CMP guidelines, PCE volumes at these intersections were computed using a PCE factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with 4 or more axles. The percentage of trucks at the remaining intersections was determined from the classification counts at adjacent intersections. PCE volumes for these intersections were computed using a PCE factor of 2.5 for all trucks.

Traffic volumes within the Rimforest area typically fluctuate with seasonal variations; therefore, a seasonal adjustment factor was developed by comparing the latest Caltrans peak month traffic volumes to the average month traffic volumes. Caltrans peak month volumes were found to be 8.42 percent higher than the average month traffic volumes; therefore, the existing volumes were further increased by 8.42 percent to account for the seasonal variation. Count sheets are contained in Appendix A. Detailed volume development worksheets are included in Appendix B.

4.2 Opening Year (2018) Traffic Volumes

Opening year (2018) peak hour traffic volumes were developed by applying an annual growth rate per year (2017 to 2018) to the existing volumes at each study intersection. The growth rate is based on the San Bernardino Traffic Analysis Model (SBTAM). Detailed volume development worksheets are included in Appendix B.

4.3 Cumulative (2018) Traffic Volumes

Cumulative (2018) peak hour traffic volumes were developed by adding cumulative project trips to the opening year (2018) peak hour traffic volumes at each study intersection. The trip generation for cumulative projects was developed using rates from the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition and from previously completed traffic studies. Table C lists the cumulative projects included in the analysis. As shown in Table C, the cumulative projects are anticipated to generate 300 Saturday peak hour trips, 260 Sunday peak hour trips, 1,340 Saturday daily trips, and 1,111 Sunday daily trips. Figure 6 illustrates the trip assignment for cumulative projects. Detailed volume development worksheets are included in Appendix B.

4.4 Year 2040 Traffic Volumes

Year 2040 peak hour traffic volumes were developed by applying an annual growth rate per year (2017 to 2040) to the existing volumes at each study intersection since the SBTAM does not have validated forecasts for weekend traffic. Therefore, a growth rate based on the latest SBTAM was calculated using weekday growth between the base year (2012) and future year model (2040). It was observed that year 2040 turn movement volumes were less than cumulative (2018) turn movement volumes at a few study intersections. This is likely due to some of the cumulative projects included in the opening year (2018) scenario not being included in the SBTAM or modeled differently. Therefore, these turning movements were adjusted by applying a growth factor of 5 percent to cumulative (2018) traffic

Table C - Cumulative Projects Trip Generation

Land Use	Location	Units	Saturday				Sunday				
			In	Out	Total	Daily	In	Out	Total	Daily	
1 Skypark at Santa's Village											
Net New Project Trips ¹	East of Kuffel Canyon Road, north of SR-18.	- -	113	15	128	128	65	90	155	155	
2 Single-Family Residential											
Trip Generation Rates ²	Southwest corner of Cumberland Drive/SR-173.	60 DU	0.50	0.43	0.93	9.91	0.46	0.40	0.86	8.62	
Trip Generation			30	26	56	595	27	25	52	517	
3 Arrowhead Pine Rose Cabins											
Net New Project Trips ³	North of SR-189, west of Grandview Rd.	-	29	13	42	42	-	-	-	-	
4 Landscape Material Sales											
Trip Generation Rates ⁴	650 feet north of SR-173/Hook Creek Rd.	1 Acre	12.00	11.29	23.29	154.82	11.00	10.78	21.78	123.33	
Trip Generation			12	11	23	155	11	11	22	123	
5 Retail											
Trip Generation Rates ⁵	550 feet east of SR-18/Kuffel Canyon Rd.	4.684 TSF	3.00	1.82	4.82	49.47	2.00	1.12	3.12	25.24	
Trip Generation			14	9	23	232	9	6	15	118	
6 Chapel											
Trip Generation Rates ⁶	Southeast corner of Clubhouse Dr./Lovers Lane.	1.995 TSF	3.00	0.54	3.54	10.37	6.00	6.04	12.04	36.63	
Trip Generation			6	1	7	21	12	12	24	73	
Miniature Golf											
Trip Generation Rates ⁷		9 Holes	0.16	0.36	0.52	4.59	0.16	0.34	0.50	4.47	
Trip Generation			1	4	5	41	1	4	5	40	
Cabin											
Trip Generation Rates ²		4 DU	0.50	0.43	0.93	9.91	0.46	0.40	0.86	8.62	
Trip Generation			2	2	4	40	2	1	3	34	
7 Office Building											
Trip Generation Rates ⁸	26232 SR-18, Rimforest, CA.	5 TSF	0.23	0.20	0.43	2.46	0.09	0.07	0.16	1.05	
Trip Generation			1	1	2	12	0	1	1	5	
Single-Family Residential											
Trip Generation Rates ²		1 DU	0.50	0.43	0.93	9.91	0.46	0.40	0.86	8.62	
Trip Generation			1	0	1	10	0	1	1	9	
8 Boat Sales											
Trip Generation Rates ⁹	29163 Hook Creek Rd., Cedar Glen, CA.	2.232 TSF	1.75	2.08	3.90	28.83	1.75	2.08	3.90	28.83	
Trip Generation			4	5	9	64	4	5	9	64	
Total Trip Generation			213	87	300	1,340	131	156	287	1,138	

¹ Trip generation based on *Traffic Impact Study for the Skypark at Santa's Village Project* by Gibson Transportation Consulting (May 2016).

² Rates based on Land Use Code 210 "Single-Family Detached Housing" from Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition.

³ Trip generation based on *Arrowhead Pine Rose Cabins Traffic Impact Analysis* by Kunzman Associates (June 2016).

⁴ Rates based on Land Use Code 817 "Nursery" from ITE *Trip Generation*, 9th Edition.

⁵ Rates based on Land Use Code 820 "Shopping Center" from ITE *Trip Generation*, 9th Edition.

⁶ Rates based on Land Use Code 560 "Church" from ITE *Trip Generation*, 9th Edition.

⁷ Rates based on Land Use Code 431 "Miniature Gold Course" and Land Use "Golf Course" from ITE *Trip Generation*, 9th Edition.

⁸ Rates based on Land Use Code 710 "General Office Building" from ITE *Trip Generation*, 9th Edition.

⁹ Rates based on Land Use Code 842 "Recreational Vehicle Sales" from ITE *Trip Generation*, 9th Edition.

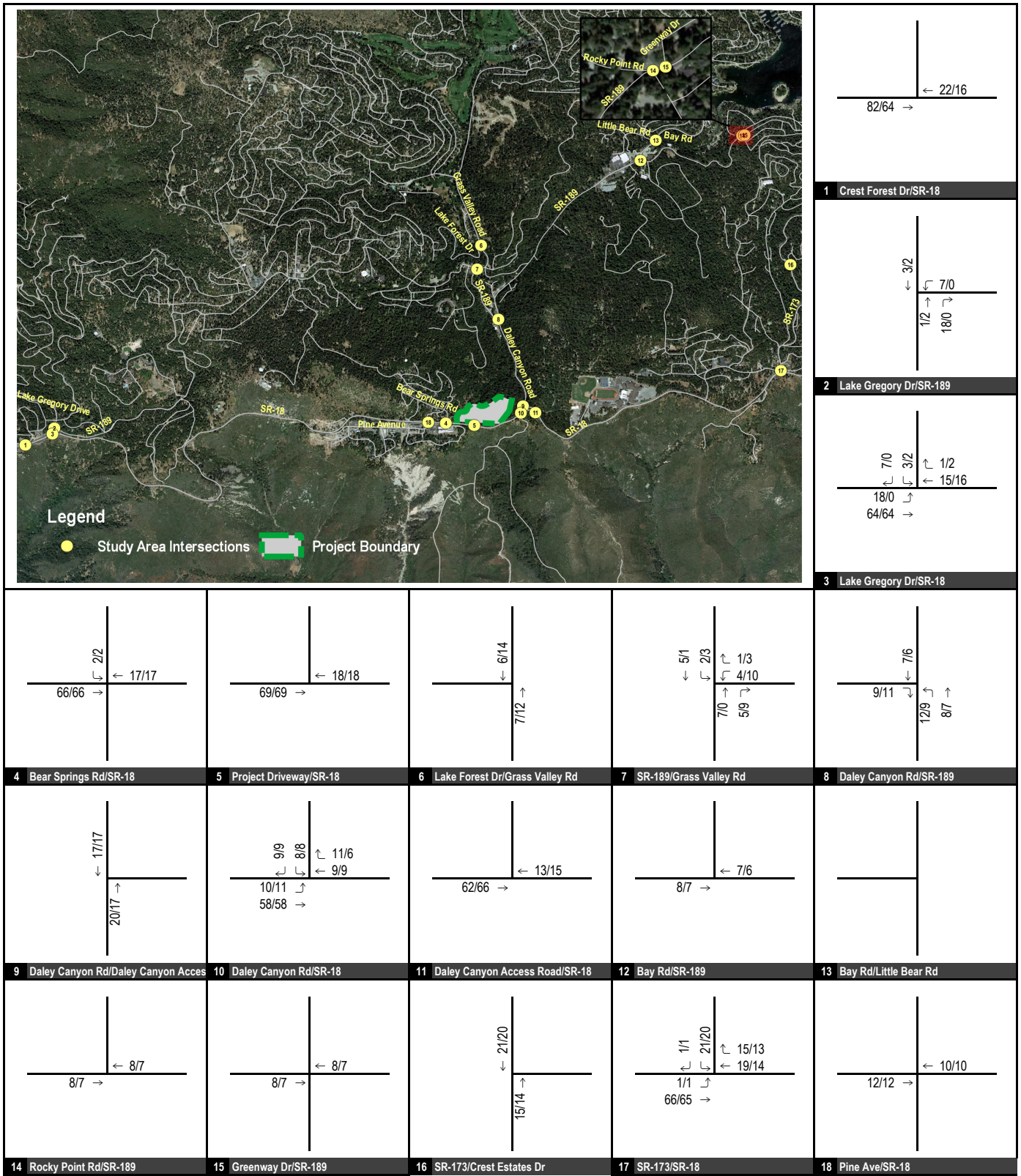


FIGURE 6

XX/YY Saturday/Sunday Trips

**Church of the Woods
Cumulative Projects Trip Assignment**



volumes to account for an increase in traffic volumes at these locations from cumulative conditions to year 2040. Detailed volume development worksheets are included in Appendix B.

4.5 Existing, Opening Year (2018), Cumulative (2018), and Year 2040 With Project Traffic Volumes

Traffic volumes for existing, opening year (2018), cumulative (2018), and year 2040 with project conditions were developed by adding the trip assignment to the corresponding (i.e. existing, opening year, year 2040) without project peak hour traffic volumes.

5.0 EXISTING CONDITIONS

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

5.1 Existing Roadway Conditions

Regional access to the project site is provided by SR-18, SR-330, and SR-138. Local access to the project is provided by the following roadways:

- **State Route 18** is oriented in the east-west direction within the project area and is classified as a 2-lane Mountain Major Highway. The posted speed limit is 45 miles per hour.
- **Lake Gregory Drive** is oriented in the northwest direction within the project area and is classified as a 2-lane Mountain Major Highway. The posted speed limit is 35 miles per hour.
- **State Route 189** is oriented in the northeast direction and is classified as a 2-lane Mountain Secondary Highway. The posted speed limit is 25 miles per hour adjacent to the project area.
- **Daley Canyon Road** is oriented in the north-south direction and is classified as a 2-lane Mountain Major Highway. The posted speed limit is 35 miles per hour adjacent to the project area.
- **Grass Valley Road** is oriented in the north-south direction and is classified as a 2-lane Mountain Secondary Highway. The posted speed limit is 45 miles per hour adjacent to the project area.
- **State Route 173** is oriented in the north-south direction and is classified as a 2-lane Mountain Major Highway. The posted speed limit is 35 miles per hour adjacent to the project area.

5.2 Existing Transit Service

Public transportation services near the proposed project are provided by fixed-route and demand-response services. Fixed-route services include transit services in which vehicles run along an established path at preset times. Demand-response services are any non-fixed-route services that transport individuals with advanced scheduling by the rider. These services are further described below:

Fixed-route services in the project vicinity are provided by Mountain Transit and are managed by Mountain Area Regional Transit Authority. The Mountain Transit includes the following fixed-routes:

- **Rim Route 2** fixed-route line provides local bus service generally in a northeast direction on SR-189 and north-south direction on Daley Canyon Road. Scheduled stops run between 5:45 a.m. and 6:00 p.m. Monday through Saturday in the Twin Peaks/Rimforest Zone.
- **Rim Off the Mountain** fixed-route line provides local bus service generally in an east-west direction on SR-18, north-south direction on Daley Canyon Road, and northeast direction on SR-189. Schedules stops run between 8:00 a.m. and 8:00 p.m. Monday through Saturday in the Twin Peaks/Rimforest Zone.
- **Rim Route 4** fixed-route line provides local bus service generally in a northeast direction on SR-173 and east-west direction on SR-18. Schedules stops run between 11:00 a.m. and 5:00 p.m. Monday through Friday in the Lake Arrowhead Zone.

Demand-response services include Dial-A-Ride, an origin to destination reservation transportation service. Dial-A-Ride vehicles travel throughout the local communities including Rimforest, Twin Peaks, Lake Arrowhead, and Skyforest. The hours of operation for Dial-A-Ride services are from 5:15 a.m. to 7:00 p.m. Monday through Friday.

Figure 7 illustrates the fixed-route transit facilities.

5.3 Existing Pedestrian & Bicycle Facilities

The project site is currently vacant with no sidewalks or bike lanes in the vicinity of the project site. Caltrans recommended that since the SBCTA Non-Motorized Transportation Plan (NMTP) includes bike lanes and sidewalks along the project frontage, the project should construct those. However, based on the terrain and the fact that bike lanes and/or sidewalks are not present on Highway 18 for miles on either direction (including adjacent to the High School). While on-street bicycle lanes comprise an important part of a NMTP and bicyclists feel more comfortable cycling, instances of discontinuous bike lanes and at locations where on-street bicycle lanes end pose considerable risk to cyclists, forcing cyclists to merge with auto traffic and creating an overall unsafe condition. The same is applicable to sidewalks. It is recommended that the bike lanes and sidewalks be constructed as part of the NMTP using a holistic approach, and that the project does not construct sidewalks and/or bike lanes along its frontage.

5.4 Existing Intersections Levels of Service

An intersection level of service analysis was conducted for existing conditions to determine current circulation system performance. Figure 8 shows the lane geometrics and stop controls at the study intersections. The existing Saturday and Sunday peak hour traffic volumes at study intersections are illustrated in Figure 9. Detailed volume development worksheets are included in Appendix B. The existing levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix C. As shown in Table D, all study area intersections are currently operating at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday peak hour).

5.5 Existing Plus Project Intersections Levels of Service

An intersection level of service analysis was conducted for existing plus project conditions to determine circulation system performance. Existing plus project traffic volumes at study intersections are shown in Figure 10. Roadway geometrics under existing plus project conditions have been assumed to be the same as under existing conditions with the exception of Project Driveway/SR-18 which includes a traffic signal, an eastbound left-turn lane, and westbound acceleration/deceleration lane. The existing plus project levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix C. As shown in Table D, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday and Sunday peak hours); and
- Pine Avenue/State Route 18 (Saturday peak hour).

As shown in the above analysis, Bear Springs Road/State Route 18 operates at unsatisfactory LOS under existing and existing plus project conditions. While Caltrans District 8 considers operations at LOS E or worse as unsatisfactory, a direct project impact under CEQA occurs if the project either creates the deficiency or exceeds thresholds set by the lead/responsible agency. This intersection operates at unsatisfactory conditions under at least one analysis period and the project adds to the unsatisfactory operations. Although the project does not create a direct significant impact at this intersection, improvements have been recommended in this report and the project will pay a fair share of these improvements. The intersection of Pine Avenue/State Route 18 operates at satisfactory LOS under existing conditions



Source: Mountain Transit, 2017.

FIGURE 7

Church of the Woods
Existing Transit Routes



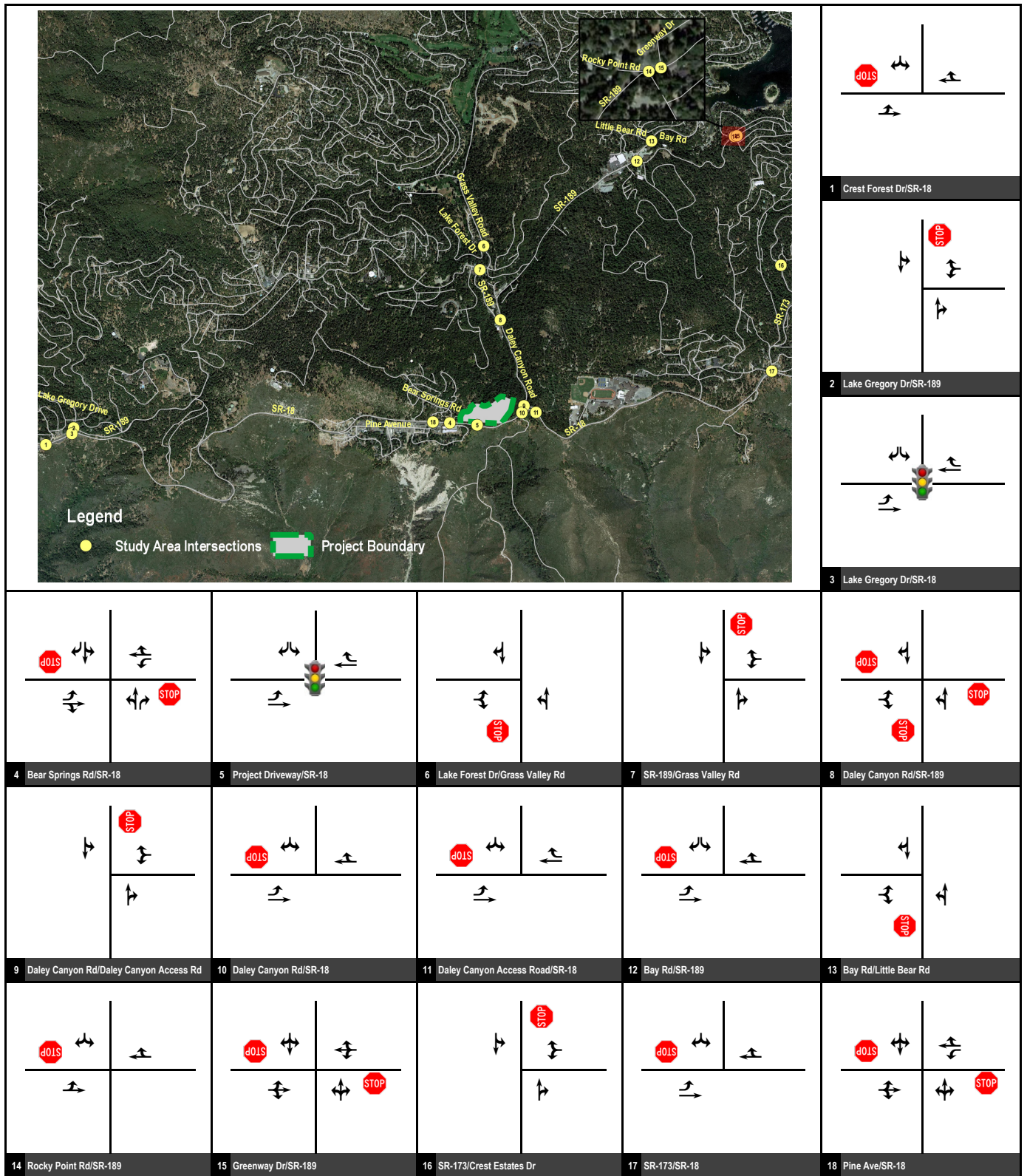


FIGURE 8

Legend



Church of the Woods
Existing Intersection Geometrics and Stop Control



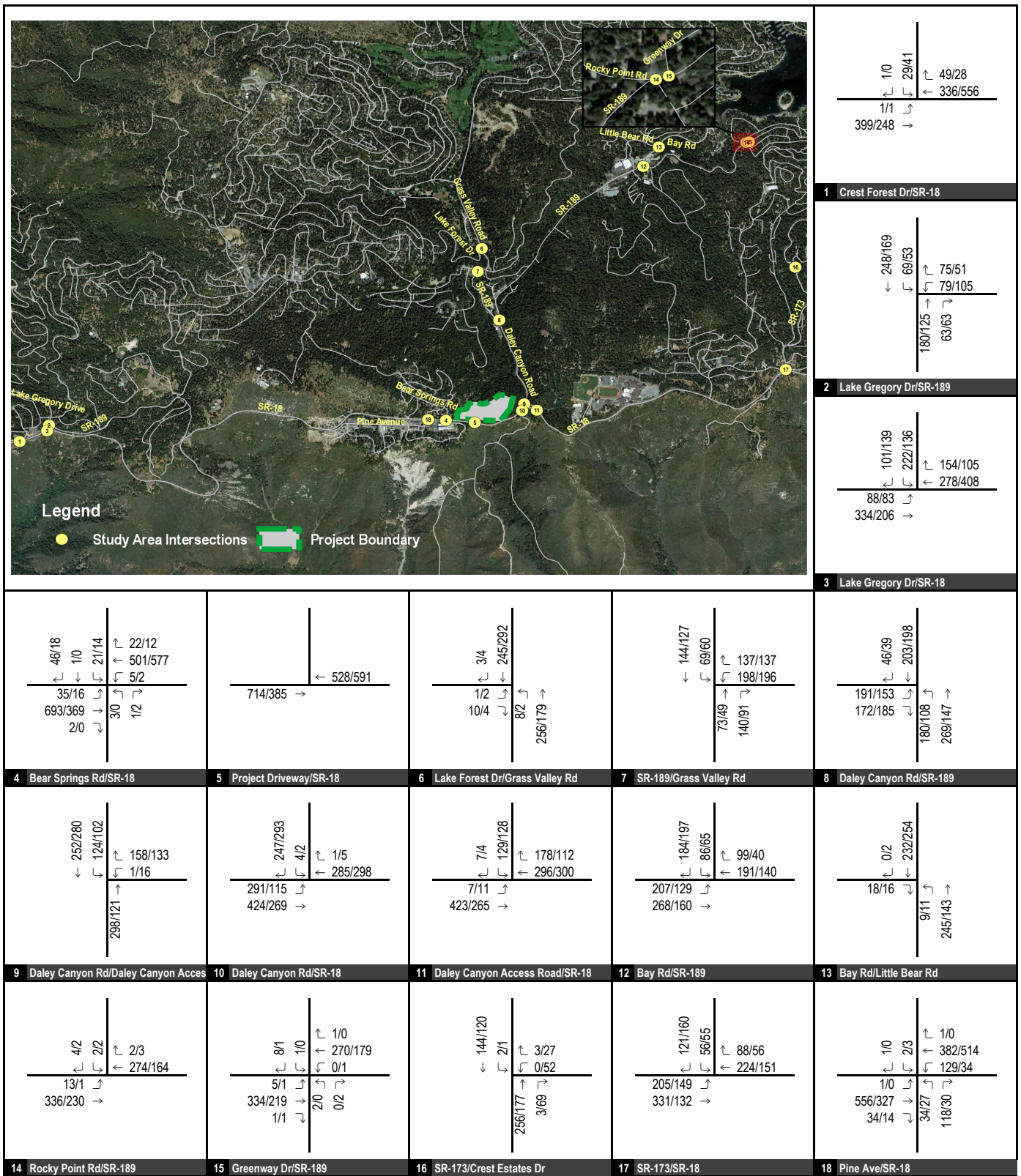


FIGURE 9

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

**Church of the Woods
Existing Traffic Volumes (in PCEs)**



Table D: Existing Intersection Levels of Service

Intersection	LOS Standard	Control	Without Project				With Project				Project Impact
			Saturday Peak Hour		Sunday Peak Hour		Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
1 . Crest Forest Drive/State Route 18	D	TWSC	18.2	C	18.5	C	19.7	C	19.8	C	NO
2 . Lake Gregory Drive/State Route 189	D	TWSC	16.5	C	13.3	B	18.3	C	14.2	B	NO
3 . Lake Gregory Drive/State Route 18	D	Signal	23.4	C	23.7	C	23.6	C	23.4	C	NO
4 . Bear Springs Road/State Route 18	D	TWSC	40.2	E *	30.5	D	61.4	F *	46.1	E *	YES
5 . Project Driveway/State Route 18	D	Signal	<i>Future Intersection</i>				15.9	B	16.9	B	NO
6 . Lake Forest Drive/Grass Valley Road	C	TWSC	9.9	A	10.8	B	9.9	A	10.6	B	NO
7 . State Route 189/Grass Valley Road	D	TWSC	17.1	C	15.7	C	19.5	C	17.7	C	NO
8 . Daley Canyon Road/State Route 189	D	AWSC	17.9	C	13.3	B	28.7	D	17.3	C	NO
9 . Daley Canyon Road/Daley Canyon Access Road	C	TWSC	11.3	B	10.8	B	12.4	B	12.1	B	NO
10 . Daley Canyon Road/State Route 18	D	TWSC	13.4	B	16.2	C	16.9	C	24.9	C	NO
11 . Daley Canyon Access Road/State Route 18	D	TWSC	21.8	C	17.6	C	26.6	D	20.9	C	NO
12 . Bay Road/State Route 189	D	AWSC	13.3	B	10.3	B	14.8	B	11.2	B	NO
13 . Bay Road/Little Bear Road	C	TWSC	9.7	A	9.9	A	9.8	A	10.0	A	NO
14 . Rocky Point Road/State Route 189	D	TWSC	11.6	B	10.1	B	11.2	B	9.8	A	NO
15 . Greenway Drive/State Route 189	D	TWSC	15.8	C	9.5	A	16.9	C	11.6	B	NO
16 . State Route 173/Crest Estates Drive	D	TWSC	9.8	A	11.2	B	11.3	B	11.7	B	NO
17 . State Route 173/State Route 18	D	TWSC	22.5	C	13.7	B	27.0	D	15.0	B	NO
18 . Pine Avenue/State Route 18	D	TWSC	32.7	D	27.2	D	37.7	E *	32.0	D	YES

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

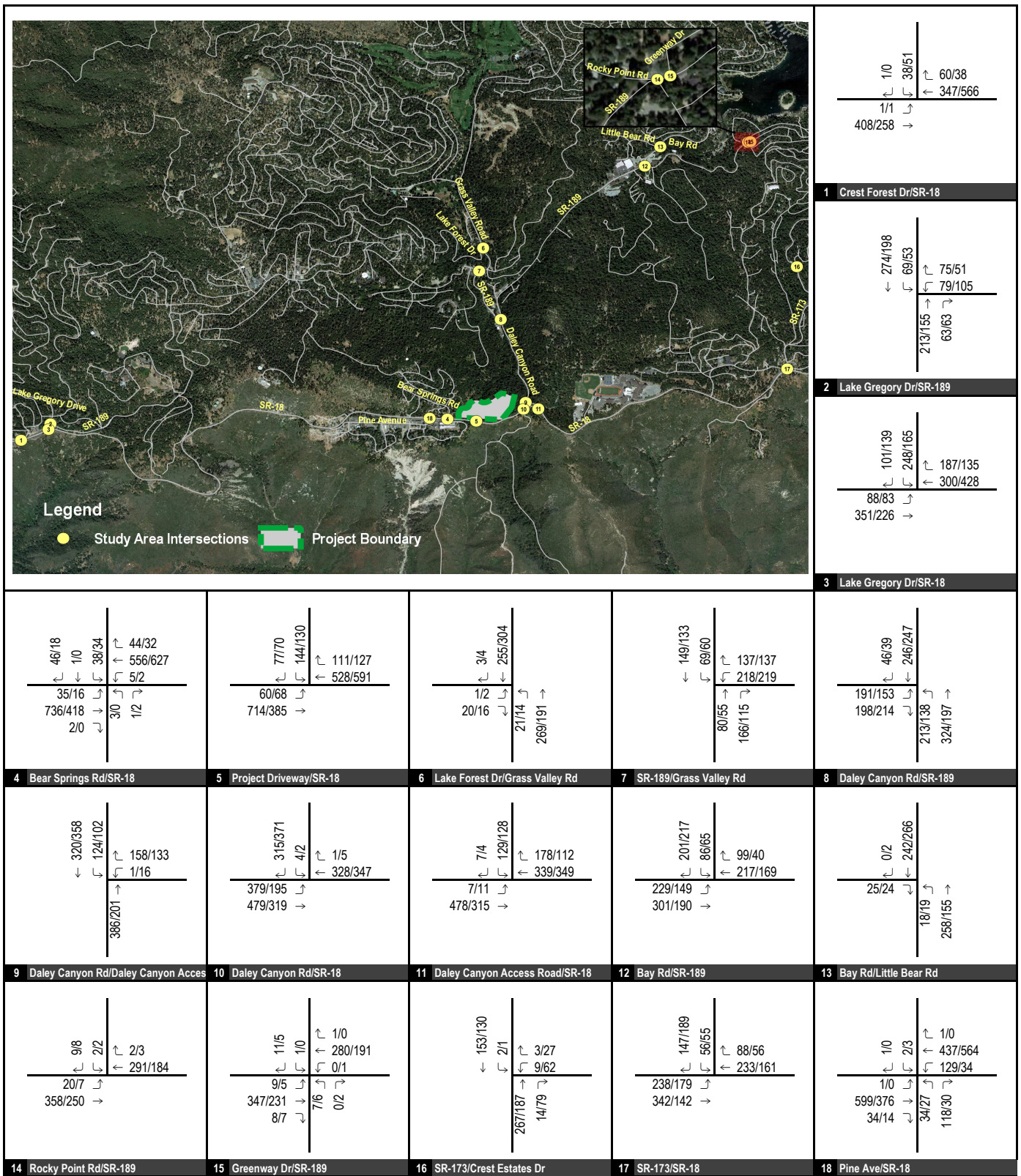


FIGURE 10

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

**Church of the Woods
Existing Plus Project Traffic Volumes (in PCEs)**



and operates at unsatisfactory LOS under existing plus project conditions. The project creates this deficiency and therefore; a significant project impact occurs at this intersection.

6.0 OPENING YEAR (2018) CONDITIONS

This section discusses opening year (2018) transportation conditions in the study area. It is anticipated that the project will open in 2018.

6.1 Opening Year (2018) Roadway Conditions

Opening year (2018) roadway conditions are assumed to be the same as those under existing conditions.

6.2 Opening Year (2018) Transit Service

Transit service under opening year (2018) conditions are anticipated to remain the same as under existing conditions.

6.3 Opening Year (2018) Pedestrian & Bicycle Facilities

Pedestrian and bicycle facilities under opening year (2018) conditions are anticipated to remain the same as under existing conditions.

6.4 Opening Year (2018) Intersections Levels of Service

An intersection level of service analysis was conducted for opening year (2018) conditions to determine circulation system performance. Opening year (2018) traffic volumes at study intersections are shown in Figure 11. Opening year (2018) levels of service for the study area intersections are summarized in Table E. Detailed volume development worksheets are included in Appendix B. Level of service calculation worksheets are contained in Appendix C. As shown in Table E, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday peak hour).

6.5 Opening Year (2018) With Project Intersections Levels of Service

An intersection level of service analysis was conducted for opening year (2018) with project conditions to determine circulation system performance. Opening year (2018) with project traffic volumes at study intersections are shown in Figure 12. The opening year (2018) with project levels of service for the study area intersections are summarized in Table E. Level of service calculation worksheets are contained in Appendix C. As shown in Table E, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday and Sunday peak hours); and
- Pine Avenue/State Route 18 (Saturday peak hour).

As shown in the above analysis, Bear Springs Road/State Route 18 operates at unsatisfactory LOS under opening year (2018) and opening year (2018) with project conditions. While Caltrans District 8 considers operations at LOS E or worse as unsatisfactory, a direct project impact under CEQA occurs if the project either creates the deficiency or exceeds thresholds set by the lead/responsible agency. This intersection operates at unsatisfactory conditions under at least one analysis period and the project adds to the unsatisfactory operations. Although the project does not create a direct significant impact at this intersection, improvements have been recommended in this report and the project will pay a fair share of these improvements. The intersection of Pine Avenue/State Route 18 operates at satisfactory LOS under existing conditions and unsatisfactory LOS under existing plus project conditions. The project creates this deficiency and therefore; a significant project impact occurs at this intersection.

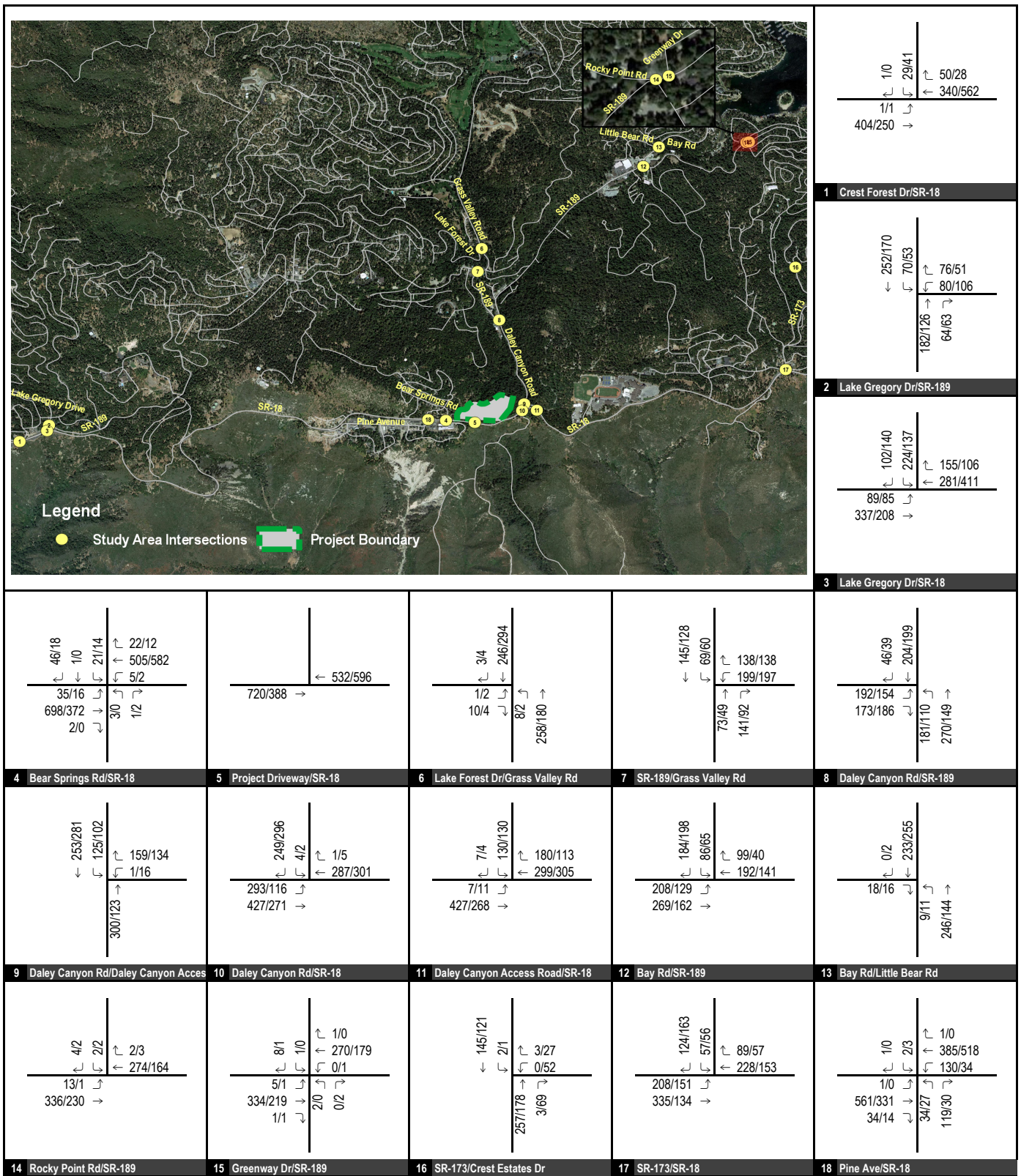


FIGURE 11

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

**Church of the Woods
Opening Year (2018) Traffic Volumes (in PCEs)**



Table E: Opening Year (2018) Intersection Levels of Service

Intersection	LOS Standard	Control	Without Project				With Project				Project Impact
			Saturday Peak Hour		Sunday Peak Hour		Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
1 . Crest Forest Drive/State Route 18	D	TWSC	18.5	C	18.8	C	20.1	C	20.1	C	NO
2 . Lake Gregory Drive/State Route 189	D	TWSC	16.8	C	13.3	B	18.7	C	14.3	B	NO
3 . Lake Gregory Drive/State Route 18	D	Signal	23.4	C	23.5	C	23.6	C	23.2	C	NO
4 . Bear Springs Road/State Route 18	D	TWSC	40.9	E *	30.9	D	63.2	F *	47.0	E *	YES
5 . Project Driveway/State Route 18	D	Signal	<i>Future Intersection</i>				16.0	B	17.0	B	NO
6 . Lake Forest Drive/Grass Valley Road	C	TWSC	9.9	A	10.8	B	9.9	A	10.6	B	NO
7 . State Route 189/Grass Valley Road	D	TWSC	17.1	C	15.7	C	19.6	C	17.9	C	NO
8 . Daley Canyon Road/State Route 189	D	AWSC	18.1	C	13.4	B	29.2	D	17.6	C	NO
9 . Daley Canyon Road/Daley Canyon Access Road	C	TWSC	11.4	B	10.8	B	12.5	B	12.1	B	NO
10 . Daley Canyon Road/State Route 18	D	TWSC	13.5	B	16.5	C	17.0	C	25.7	D	NO
11 . Daley Canyon Access Road/State Route 18	D	TWSC	22.3	C	18.0	C	27.2	D	21.4	C	NO
12 . Bay Road/State Route 189	D	AWSC	13.3	B	10.4	B	14.8	B	11.2	B	NO
13 . Bay Road/Little Bear Road	C	TWSC	9.7	A	9.9	A	9.8	A	10.1	B	NO
14 . Rocky Point Road/State Route 189	D	TWSC	11.6	B	10.1	B	11.2	B	9.8	A	NO
15 . Greenway Drive/State Route 189	D	TWSC	15.8	C	9.5	A	16.9	C	11.6	B	NO
16 . State Route 173/Crest Estates Drive	D	TWSC	9.8	A	11.2	B	11.3	B	11.7	B	NO
17 . State Route 173/State Route 18	D	TWSC	23.4	C	13.9	B	28.7	D	15.3	C	NO
18 . Pine Avenue/State Route 18	D	TWSC	32.9	D	27.6	D	38.7	E *	32.6	D	YES

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

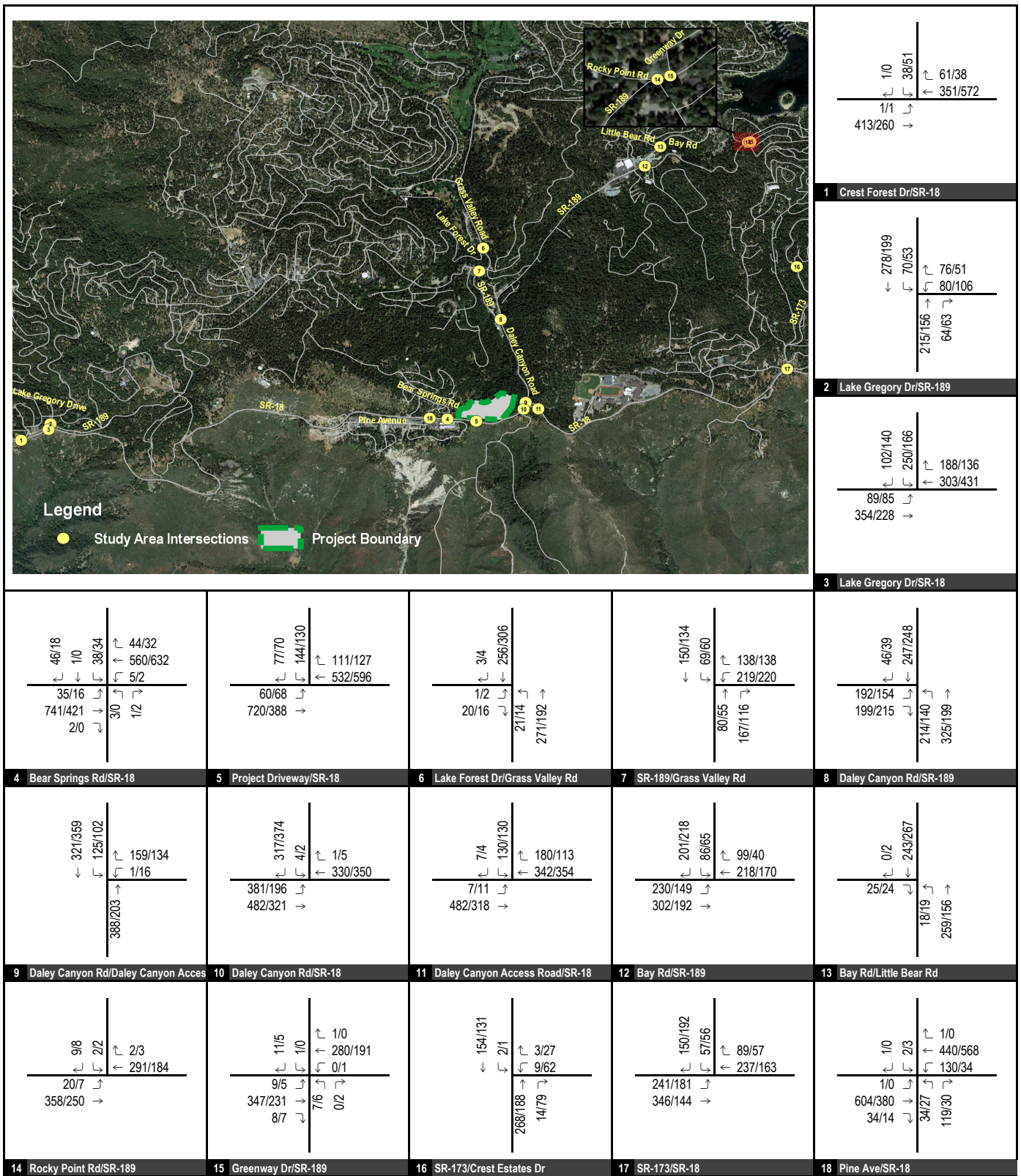


FIGURE 12

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

Church of the Woods
Opening Year (2018) With Project Traffic Volumes (in PCEs)



6.6 Cumulative (2018) Intersections Levels of Service

An intersection level of service analysis was conducted for cumulative (2018) conditions to determine circulation system performance. Cumulative (2018) traffic volumes at study intersections are shown in Figure 13. Cumulative (2018) levels of service for the study area intersections are summarized in Table F. Detailed volume development worksheets are included in Appendix B. Level of service calculation worksheets are contained in Appendix C. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday and Sunday peak hours); and
- State Route 173/State Route 18 (Saturday peak hour).

6.7 Cumulative (2018) With Project Intersections Levels of Service

An intersection level of service analysis was conducted for cumulative (2018) with project conditions to determine circulation system performance. Cumulative (2018) with project traffic volumes at study intersections are shown in Figure 14. The cumulative (2018) with project levels of service for the study area intersections are summarized in Table F. Level of service calculation worksheets are contained in Appendix C. As shown in Table F, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday and Sunday peak hours);
- Daley Canyon Road/State Route 189 (Saturday peak hour);
- Daley Canyon Road/State Route 18 (Sunday peak hour);
- State Route 173/State Route 18 (Saturday peak hour); and
- Pine Avenue/State Route 18 (Saturday peak hour).

As shown in the above analysis, Bear Springs Road/State Route 18 and State Route 173/State Route 18 operate at unsatisfactory LOS under cumulative (2018) and cumulative with project conditions. While Caltrans District 8 considers operations at LOS E or worse as unsatisfactory, a direct project impact under CEQA occurs if the project either creates the deficiency or exceeds thresholds set by the lead/responsible agency. This intersection operates at unsatisfactory conditions under at least one analysis period and the project adds to the unsatisfactory operations. Although the project does not create a direct significant impact at this intersection, improvements have been recommended in this report and the project will pay a fair share of these improvements. The intersections of Daley Canyon Road/State Route 189, Daley Canyon Road/State Route 18, and Pine Avenue/State Route 18 operate at satisfactory LOS under cumulative (2018) conditions and unsatisfactory LOS under cumulative (2018) with project conditions. The project creates these deficiencies and therefore; a significant project impact occurs at these locations.

7.0 YEAR 2040 CONDITIONS

This section discusses year 2040 transportation conditions in the study area.

7.1 Year 2040 Roadway Conditions

Year 2040 roadway conditions are assumed to be the same as those under existing conditions.

7.2 Year 2040 Transit Service

Transit service under year 2040 conditions are anticipated to remain the same as under existing conditions.

7.3 Year 2040 Pedestrian & Bicycle Facilities

According to the San Bernardino County Non-Motorized Transportation Plan, Class II bike lanes are planned along Daley Canyon Road, Grass Valley Road, State Route 189 and Bear Springs Road. Figure 15 illustrates the planned bike lanes.

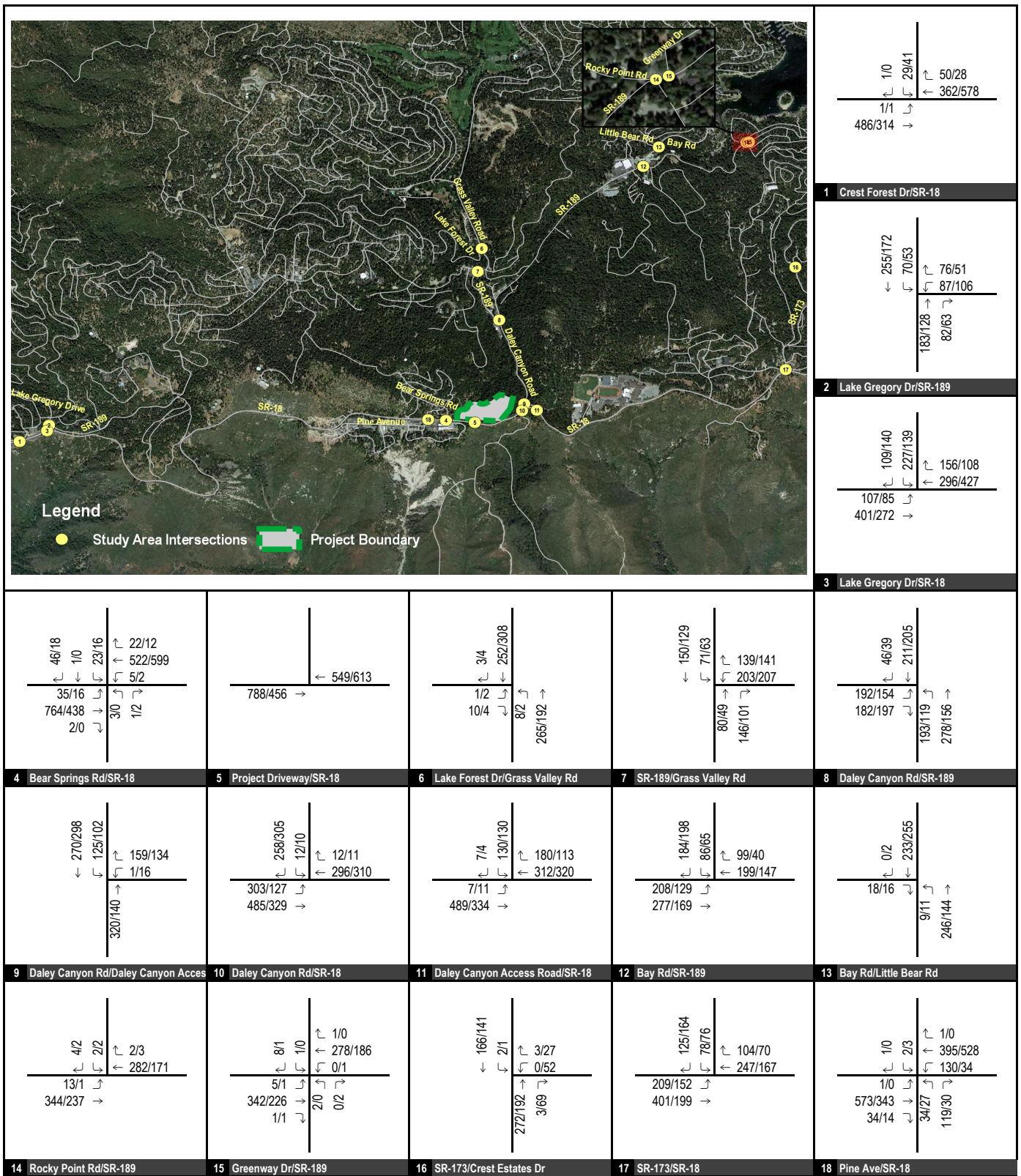


FIGURE 13

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

**Church of the Woods
 Cumulative (2018) Traffic Volumes (in PCEs)**



Table F: Cumulative (2018) Intersection Levels of Service

Intersection	LOS Standard	Control	Without Project				With Project				Project Impact
			Saturday Peak Hour		Sunday Peak Hour		Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
1 . Crest Forest Drive/State Route 18	D	TWSC	22.5	C	22.2	C	24.8	C	24.9	C	NO
2 . Lake Gregory Drive/State Route 189	D	TWSC	17.9	C	13.4	B	20.0	C	14.4	B	NO
3 . Lake Gregory Drive/State Route 18	D	Signal	23.9	C	23.5	C	24.0	C	23.2	C	NO
4 . Bear Springs Road/State Route 18	D	TWSC	48.7	E *	36.7	E *	80.2	F *	60.3	F *	NO
5 . Project Driveway/State Route 18	D	Signal	<i>Future Intersection</i>				16.7	B	17.0	B	NO
6 . Lake Forest Drive/Grass Valley Road	C	TWSC	9.9	A	11.0	B	10.0	A	10.7	B	NO
7 . State Route 189/Grass Valley Road	D	TWSC	18.1	C	16.7	C	20.9	C	19.1	C	NO
8 . Daley Canyon Road/State Route 189	D	AWSC	19.8	C	14.1	B	36.0	E *	19.0	C	YES
9 . Daley Canyon Road/Daley Canyon Access Road	C	TWSC	11.6	B	11.1	B	12.7	B	12.4	B	NO
10 . Daley Canyon Road/State Route 18	D	TWSC	17.2	C	19.6	C	27.4	D	38.9	E *	YES
11 . Daley Canyon Access Road/State Route 18	D	TWSC	26.0	D	20.7	C	32.7	D	25.2	D	NO
12 . Bay Road/State Route 189	D	AWSC	13.6	B	10.4	B	15.1	C	11.4	B	NO
13 . Bay Road/Little Bear Road	C	TWSC	9.7	A	9.9	A	9.8	A	10.1	B	NO
14 . Rocky Point Road/State Route 189	D	TWSC	11.7	B	10.2	B	11.3	B	9.8	A	NO
15 . Greenway Drive/State Route 189	D	TWSC	16.1	C	9.5	A	17.3	C	11.7	B	NO
16 . State Route 173/Crest Estates Drive	D	TWSC	9.9	A	11.6	B	11.6	B	12.1	B	NO
17 . State Route 173/State Route 18	D	TWSC	40.5	E *	17.0	C	58.7	F *	19.8	C	NO
18 . Pine Avenue/State Route 18	D	TWSC	34.5	D	28.5	D	40.0	E *	34.0	D	YES

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

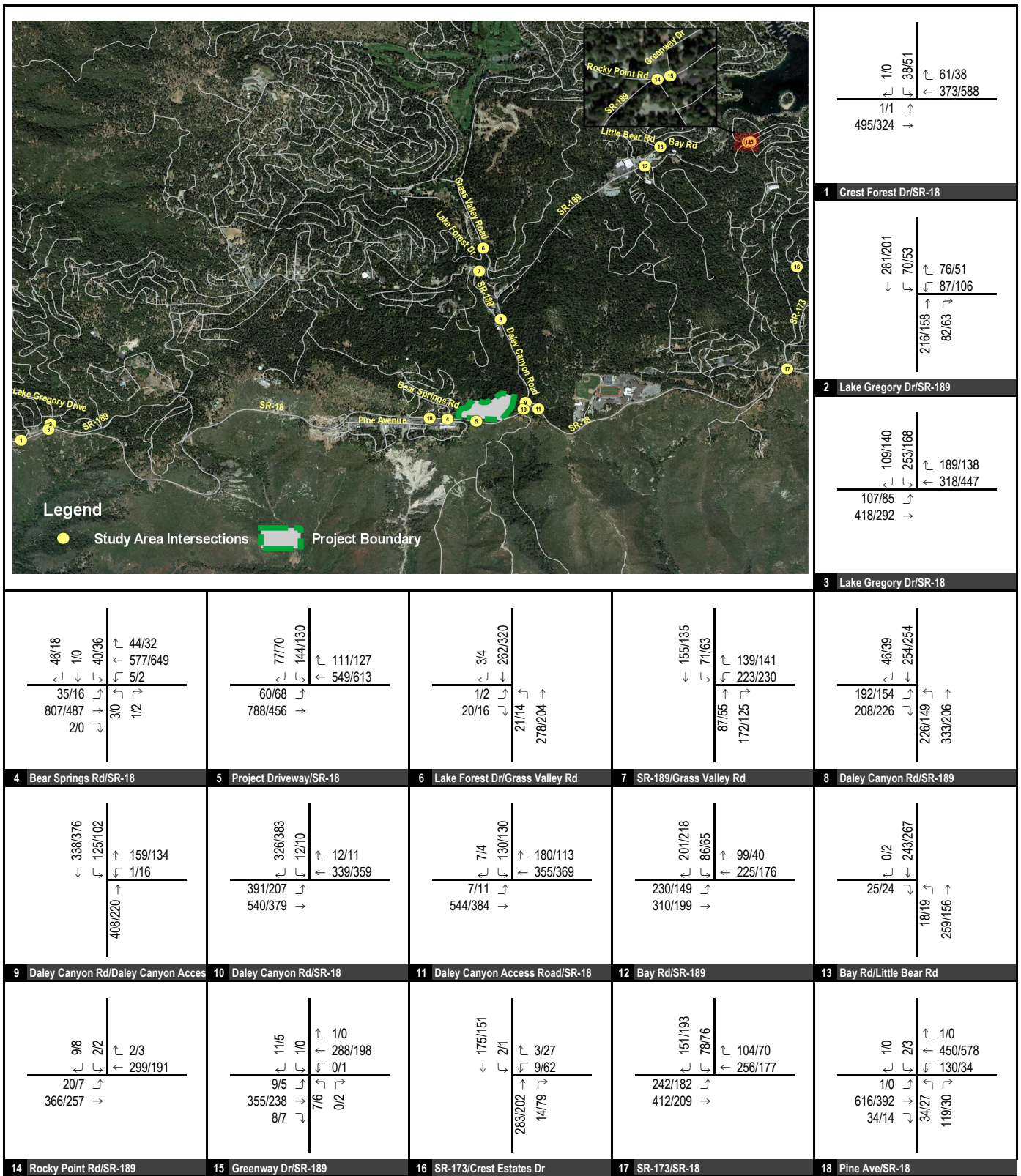
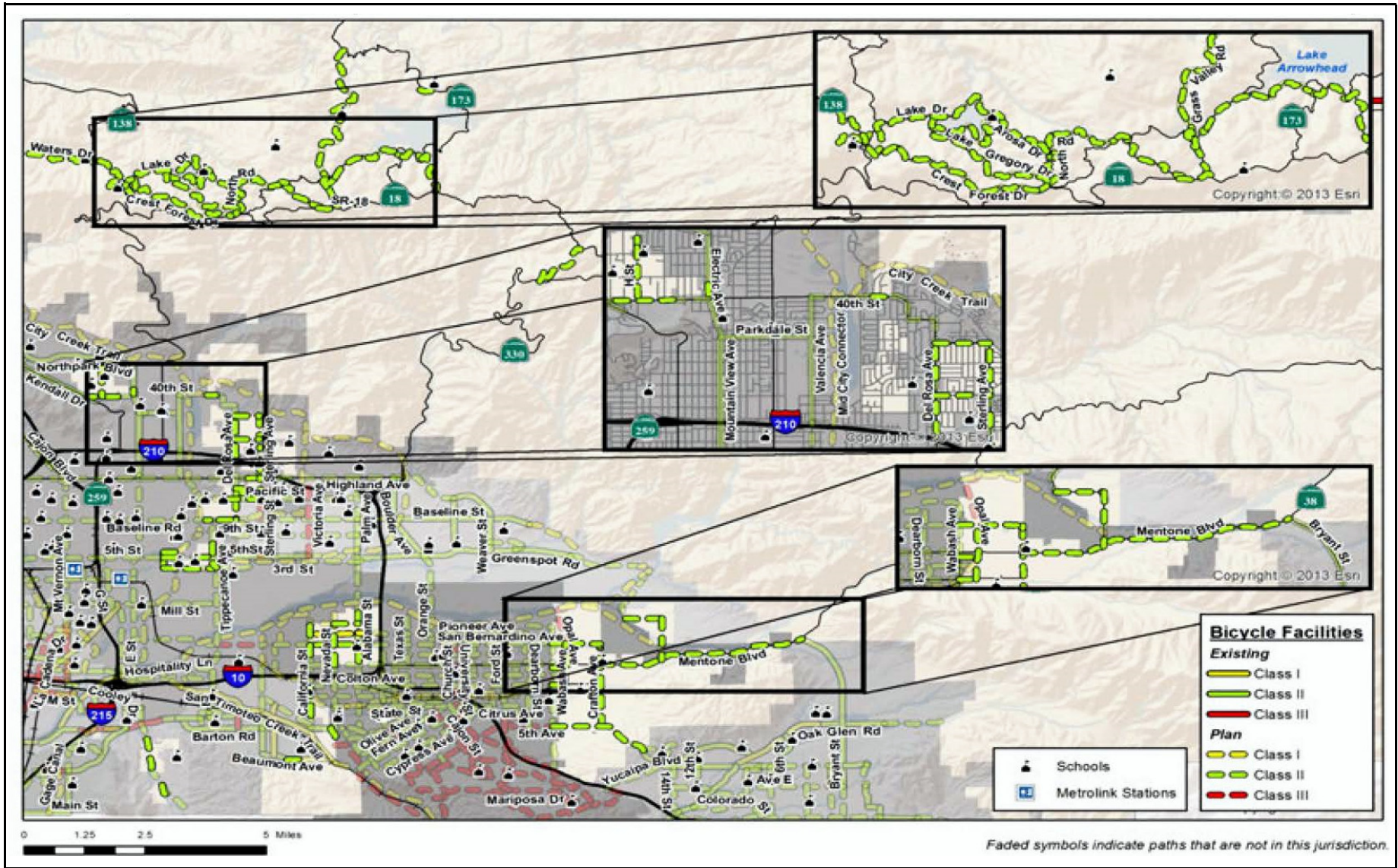


FIGURE 14

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

Church of the Woods
Cumulative (2018) With Project Traffic Volumes (in PCEs)





Source: County of San Bernardino Non-Motorized Transportation Plan, May 2015.

FIGURE 15

Church of the Woods
Planned Bike Lanes



7.4 Year 2040 Intersections Levels of Service

An intersection level of service analysis was conducted for year 2040 conditions to determine circulation system performance. Year 2040 traffic volumes at study intersections are shown in Figure 16. Year 2040 levels of service for the study area intersections are summarized in Table G. Detailed volume development worksheets are included in Appendix B. Level of service calculation worksheets are contained in Appendix C. As shown in Table G, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday and Sunday peak hours);
- State Route 173/State Route 18 (Saturday peak hour); and
- Pine Avenue/State Route 18 (Saturday peak hour).

7.5 Year 2040 With Project Intersections Levels of Service

An intersection level of service analysis was conducted for year 2040 with project conditions to determine circulation system performance. Year 2040 with project traffic volumes at study intersections are shown in Figure 17. The year 2040 with project levels of service for the study area intersections are summarized in Table G. Level of service calculation worksheets are contained in Appendix C. As shown in Table G, all study area intersections are forecast to operate at satisfactory levels of service with the exception of the following:

- Bear Springs Road/State Route 18 (Saturday and Sunday peak hours);
- Daley Canyon Road/State Route 189 (Saturday peak hour);
- Daley Canyon Road/State Route 18 (Saturday and Sunday peak hours);
- Daley Canyon Access Road/State Route 18 (Saturday peak hour);
- State Route 173/State Route 18 (Saturday peak hour); and
- Pine Avenue/State Route 18 (Saturday peak hour).

As shown in the above analysis, Bear Springs Road/State Route 18, State Route 173/State Route 18, and Pine Avenue/State Route 18 operate at unsatisfactory LOS under year 2040 without and year 2040 with project conditions. While Caltrans District 8 considers operations at LOS E or worse as unsatisfactory, a direct project impact under CEQA occurs if the project either creates the deficiency or exceeds thresholds set by the lead/responsible agency. These intersections operate at unsatisfactory conditions under at least one analysis period and the project adds to the unsatisfactory operations. Although the project does not create a direct significant impact at this intersection, improvements have been recommended in this report and the project will pay a fair share of these improvements. The intersections of Daley Canyon Road/State Route 189, Daley Canyon Road/State Route 18, and Daley Canyon Access Road/State Route 18 operate at satisfactory LOS under year 2040 conditions and unsatisfactory LOS under year 2040 with project conditions. The project creates these deficiencies and therefore; a significant project impact occurs at these locations.

8.0 CIRCULATION IMPROVEMENTS

The CMP requires that circulation improvements be recommended at any intersection which operates at unsatisfactory level of service. For intersections that meet a jurisdiction's minimum level of service standard under existing conditions, circulation improvements must maintain conformance with that standard. For intersections that fail to meet a jurisdiction's minimum level of service standard under existing conditions, circulation improvements must maintain the existing level of service. These include conversion of stop control, signalization, changes to signal phasing, and/or addition of lanes as appropriate. Caltrans requested weaving, merge, and diverge analyses for the eastbound and westbound tapers from two lanes to one lane on SR-18 within the project frontage. The HCM 6th Edition presents methodologies for analyzing freeway weaving, merge, and diverge segment operations in uninterrupted-flow

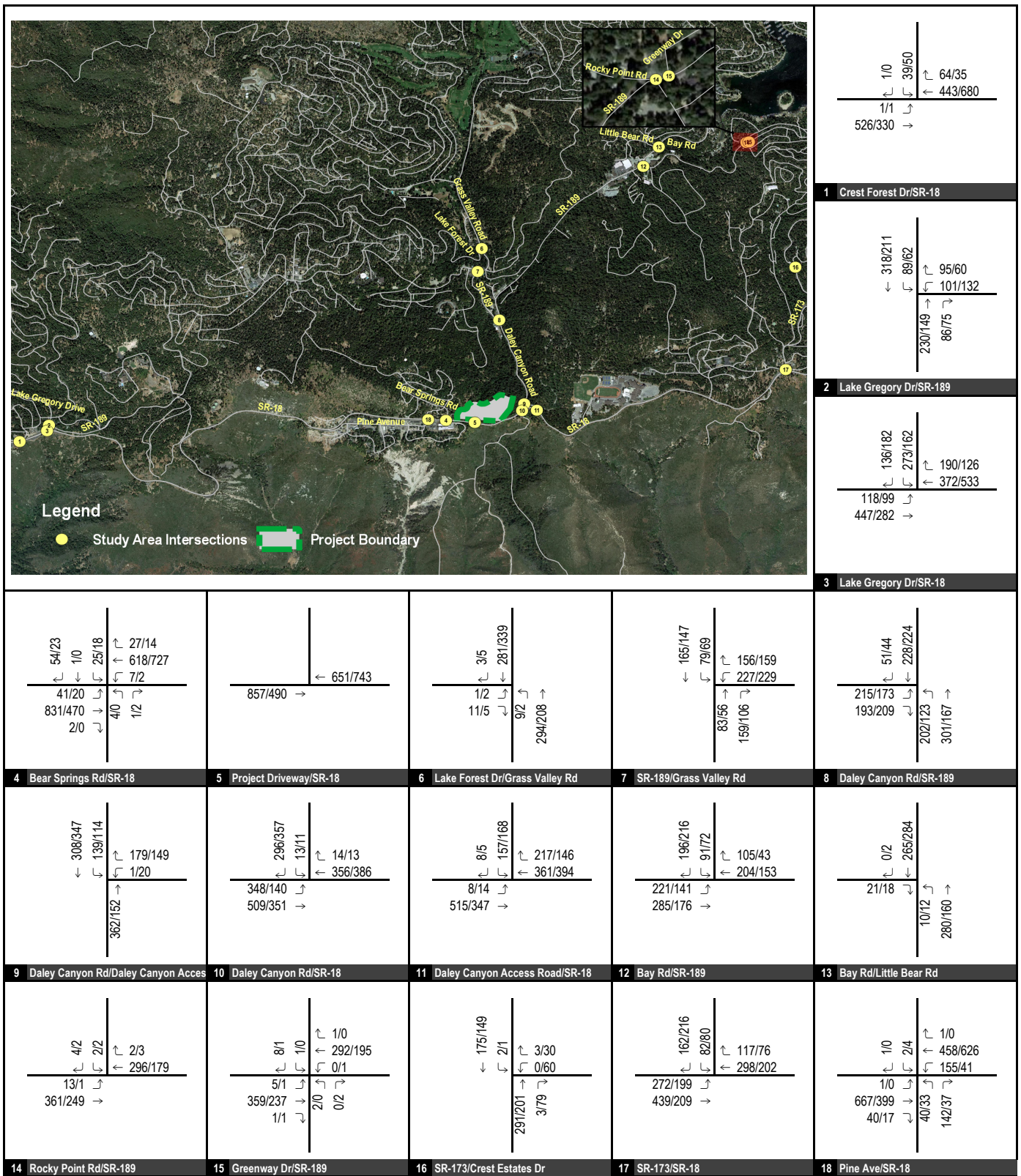


FIGURE 16

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

**Church of the Woods
Year 2040 Peak Hour Traffic Volumes (in PCEs)**



Table G: Year 2040 Intersection Levels of Service

Intersection	LOS Standard	Control	Without Project				With Project				Project Impact
			Saturday Peak Hour		Sunday Peak Hour		Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
1 . Crest Forest Drive/State Route 18	D	TWSC	24.0	C	27.2	D	26.6	D	31.3	D	NO
2 . Lake Gregory Drive/State Route 189	D	TWSC	20.0	C	15.3	C	22.3	C	16.7	C	NO
3 . Lake Gregory Drive/State Route 18	D	Signal	23.5	C	27.2	C	23.7	C	27.5	C	NO
4 . Bear Springs Road/State Route 18	D	TWSC	74.3	F *	36.5	E *	>100	F *	54.7	F *	NO
5 . Project Driveway/State Route 18	D	Signal	<i>Future Intersection</i>				16.8	B	18.3	B	NO
6 . Lake Forest Drive/Grass Valley Road	C	TWSC	10.2	B	11.0	B	10.2	B	10.8	B	NO
7 . State Route 189/Grass Valley Road	D	TWSC	22.4	C	18.0	C	27.4	D	21.1	C	NO
8 . Daley Canyon Road/State Route 189	D	AWSC	26.6	D	14.0	B	49.8	E *	18.0	C	YES
9 . Daley Canyon Road/Daley Canyon Access Road	C	TWSC	12.6	B	11.4	B	14.0	B	12.7	B	NO
10 . Daley Canyon Road/State Route 18	D	TWSC	24.2	C	20.8	C	56.5	F *	37.9	E *	YES
11 . Daley Canyon Access Road/State Route 18	D	TWSC	31.9	D	25.7	D	41.8	E *	32.9	D	YES
12 . Bay Road/State Route 189	D	AWSC	13.5	B	10.6	B	15.0	B	11.5	B	NO
13 . Bay Road/Little Bear Road	C	TWSC	9.8	A	10.0	A	10.0	A	10.1	B	NO
14 . Rocky Point Road/State Route 189	D	TWSC	11.4	B	10.3	B	11.0	B	9.9	A	NO
15 . Greenway Drive/State Route 189	D	TWSC	15.3	C	9.5	A	16.2	C	11.9	B	NO
16 . State Route 173/Crest Estates Drive	D	TWSC	9.9	A	11.5	B	11.6	B	11.9	B	NO
17 . State Route 173/State Route 18	D	TWSC	>100	F *	22.2	C	>100	F *	27.8	D	NO
18 . Pine Avenue/State Route 18	D	TWSC	75.5	F *	29.7	D	>100	F *	34.3	D	NO

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

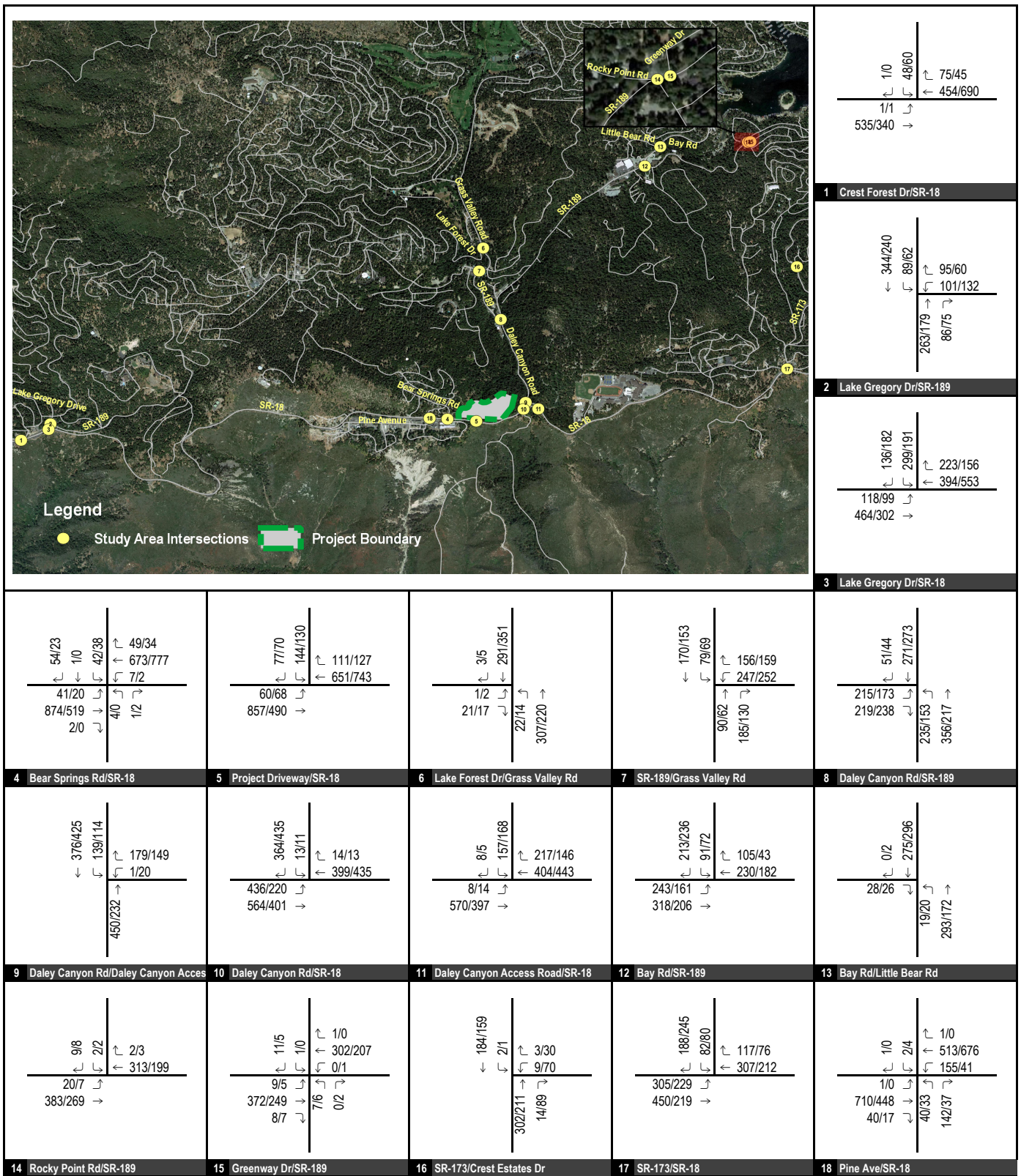


FIGURE 17

XX/YY Saturday/Sunday Peak Hour Traffic Volumes

Church of the Woods
Year 2040 With Project Peak Hour Traffic Volumes (in PCEs)



conditions. Weaving analysis is not applicable for interrupted-flow highways. Therefore, these analyses were not included for the eastbound and westbound lanes on SR-18.

8.1 Existing Plus Project Circulation Improvements

Under existing plus project conditions, two intersections will not meet the relevant jurisdiction's minimum level of service standard. Modifications to intersection configurations are recommended as mitigation measures in accord with CMP requirements as follows:

- Bear Springs Road/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday peak hour warrant is met.
- Pine Avenue/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday peak hour warrant is met.

Construction of these improvements will restore satisfactory operations. Table H show the resulting levels of service for existing plus project conditions and Figure 18 illustrates the existing plus project recommended improvements.

8.2 Opening Year (2018) With Project Circulation Improvements

Under opening year (2018) with project conditions, two intersections will not meet the relevant jurisdiction's minimum level of service standard. Modifications to intersection configurations are recommended as mitigation measures in accord with CMP requirements as follows:

- Bear Springs Road/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday peak hour warrant is met.
- Pine Avenue/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday peak hour warrant is met.

Construction of these improvements will restore satisfactory operations. Table I show the resulting levels of service for opening year (2018) with project conditions and Figure 19 illustrates the opening year (2018) with project recommended improvements.

8.3 Cumulative (2018) With Project Circulation Improvements

Under cumulative (2018) with project conditions, five intersections will not meet the relevant jurisdiction's minimum level of service standard. Modifications to intersection configurations are recommended as mitigation measures in accord with CMP requirements as follows:

- Bear Springs Road/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday peak hour warrant is met.

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

Intersection	LOS Standard	Control	With Project				Control	With Project With Improvements				Project Impact
			Saturday Peak Hour		Sunday Peak Hour			Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS	
4 . Bear Springs Road/State Route 18	D	TWSC	61.4	F *	46.1	E *	Signal	33.0	C	30.3	C	NO
18 . Pine Avenue/State Route 18	D	TWSC	37.7	E *	32.0	D	Signal	7.4	A	5.3	A	NO

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

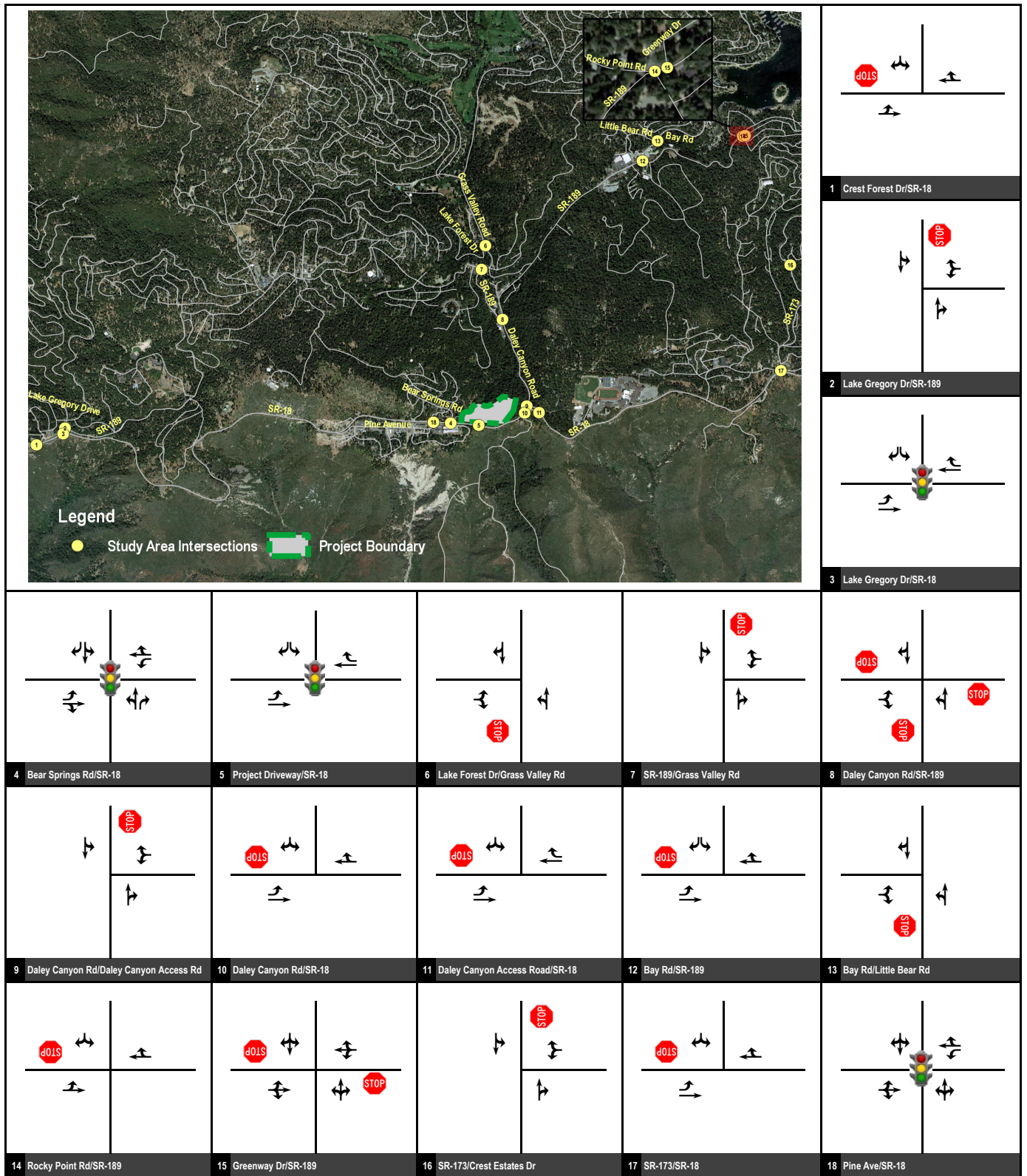


FIGURE 18

Legend



**Church of the Woods
Existing Plus Project With Improvements
Intersection Geometrics and Stop Control**

Table I: Opening Year (2018) With Project With Improvements Intersection Levels of Service

Intersection	LOS Standard	Control	With Project				Control	With Project With Improvements				Project Impact
			Saturday Peak Hour		Sunday Peak Hour			Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS	
4 . Bear Springs Road/State Route 18	D	TWSC	63.2	F *	47.0	E *	Signal	21.4	C	21.4	C	NO
18 . Pine Avenue/State Route 18	D	TWSC	38.7	E *	32.6	D	Signal	14.0	B	18.8	B	NO

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

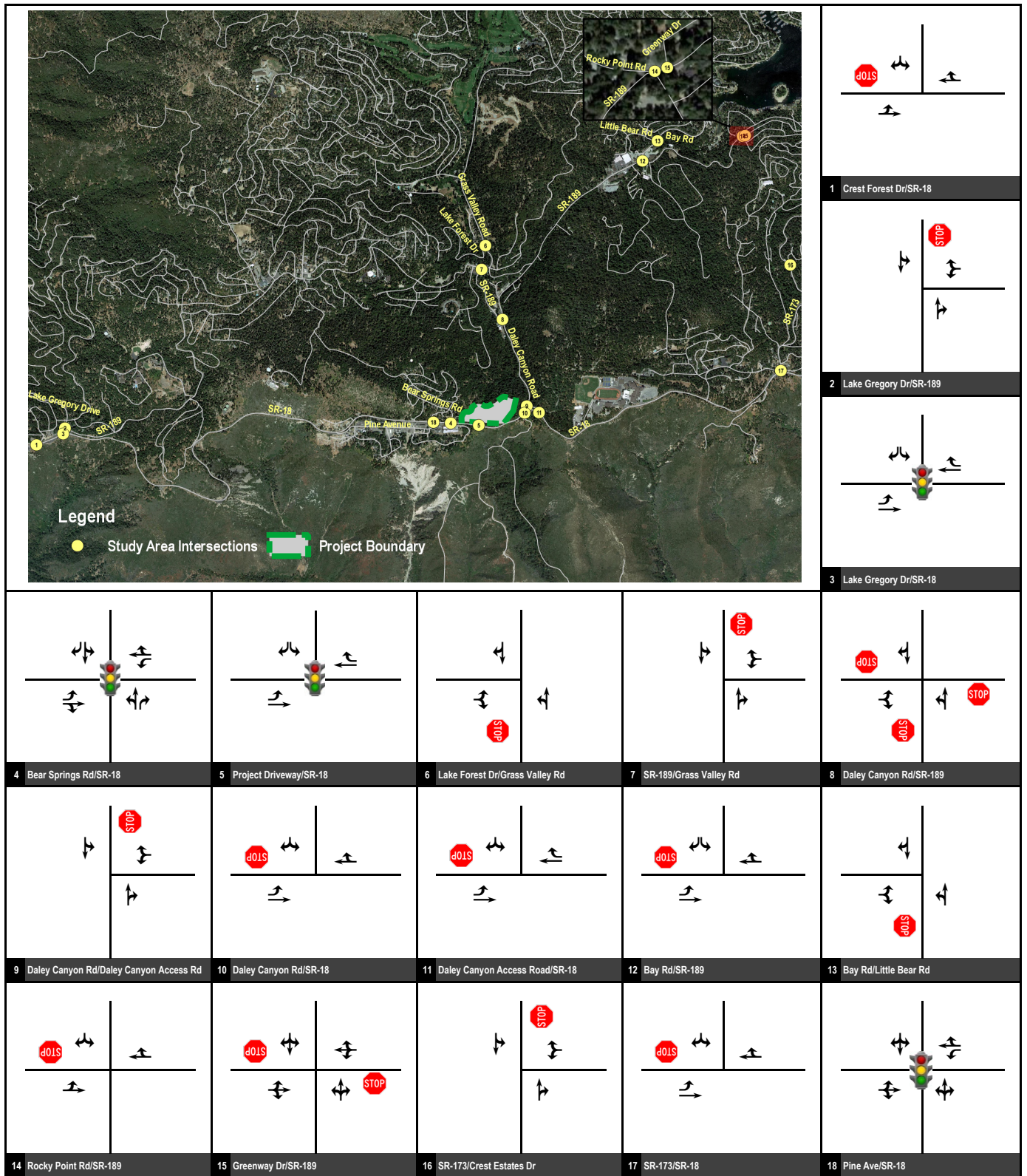


FIGURE 19

Legend



Church of the Woods
Opening Year (2018) With Project With Improvements
Intersection Geometrics and Stop Control



- Daley Canyon Road/State Route 189 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday and Sunday peak hour warrants are met.
- Daley Canyon Road/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that a traffic signal is warranted during the Saturday and Sunday peak hours.
- State Route 173/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D, and shows that a traffic signal is warranted during the Saturday and Sunday peak hours.
- Pine Avenue/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday peak hour warrant is met.

Construction of these improvements will restore satisfactory operations. Table J show the resulting levels of service for cumulative (2018) with project conditions and Figure 20 illustrates the cumulative (2018) with project recommended improvements.

8.4 Year 2040 With Project Circulation Improvements

Under year 2040 with project conditions, six intersections will not meet the relevant jurisdiction's minimum level of service standard. Modifications to intersection configurations are recommended as mitigation measures in accord with CMP requirements as follows:

- Bear Springs Road/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor). The analysis is included in Appendix D and shows that the Saturday peak hour warrant is met. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated and included in Appendix E. The fair share was calculated based on project traffic as a percentage of total growth from exiting to year 2040. As shown in Appendix E, the project fair share at this intersection is 34.4%. In addition, cost estimates for installing a traffic signal are based on CMP guidelines, which states that a new signal costs approximately \$450,000. Therefore, the project's fair share contribution to the new signal is \$154,637.
- Daley Canyon Road/State Route 189 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor).

Table J: Cumulative (2018) With Project With Improvements Intersection Levels of Service

Intersection	LOS Standard	Control	With Project				Control	With Project With Improvements				Project Impact
			Saturday Peak Hour		Sunday Peak Hour			Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS	
4 . Bear Springs Road/State Route 18	D	TWSC	80.2	F *	60.3	F *	Signal	20.7	C	21.2	C	NO
8 . Daley Canyon Road/State Route 189	D	AWSC	36.0	E *	19.0	C	Signal	51.6	D	45.3	D	NO
10 . Daley Canyon Road/State Route 18	D	TWSC	27.4	D	38.9	E *	Signal	30.9	C	32.4	C	NO
17 . State Route 173/State Route 18	D	TWSC	58.7	F *	19.8	C	Signal	28.3	C	26.5	C	NO
18 . Pine Avenue/State Route 18	D	TWSC	40.0	E *	34.0	D	Signal	13.8	B	18.6	B	NO

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

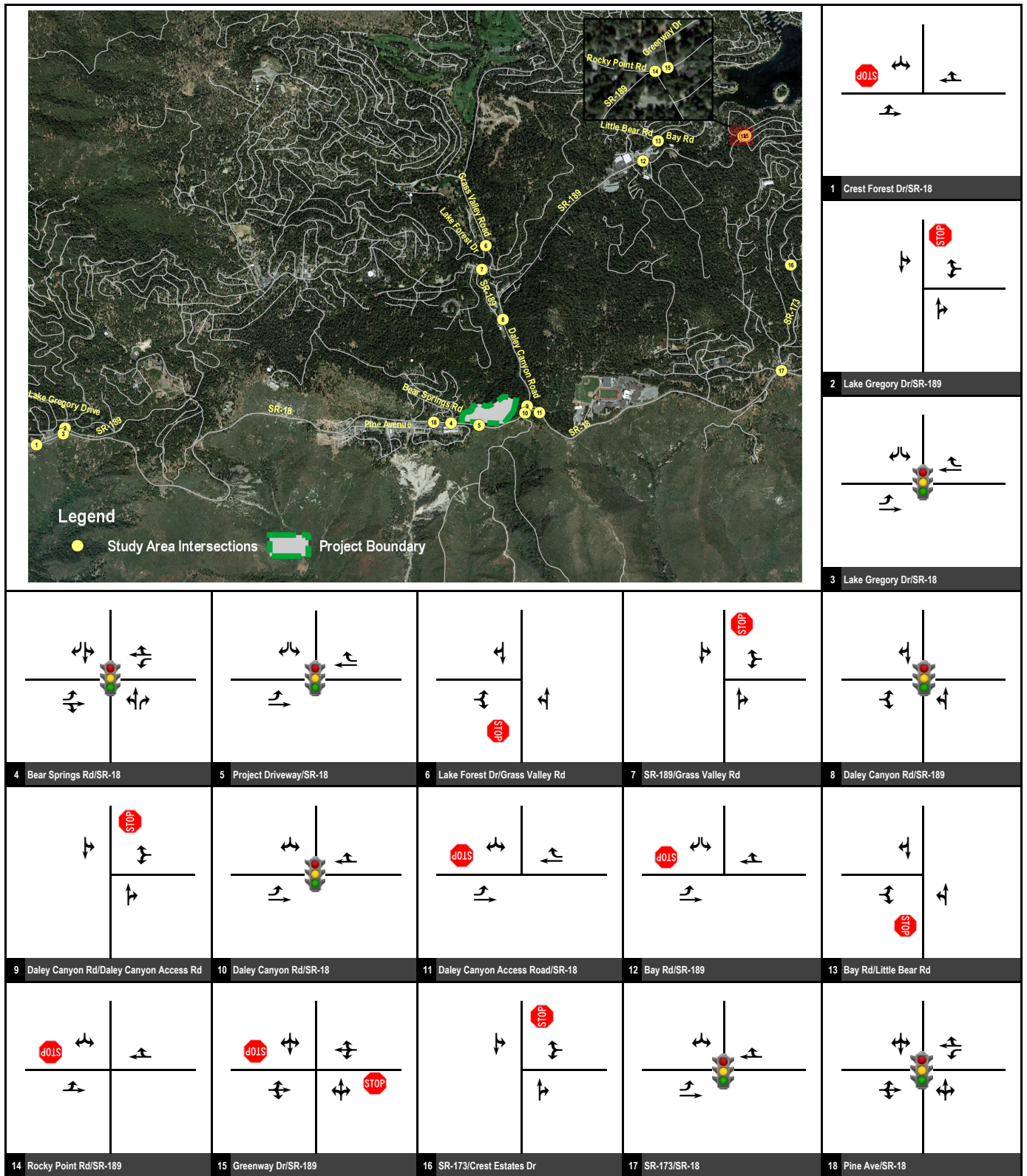


FIGURE 20

Legend



Church of the Woods
 Cumulative (2018) With Project With Improvements
 Intersection Geometrics and Stop Control

- The analysis is included in Appendix D and shows that the Saturday and Sunday peak hour warrants are met. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated and included in Appendix E. The fair share was calculated based on project traffic as a percentage of total growth from existing to year 2040. As shown in Appendix E, the project fair share at this intersection is 58.7%. In addition, cost estimates for installing a traffic signal are based on CMP guidelines, which states that a new signal costs approximately \$450,000. Therefore, the project's fair share contribution to the new signal is \$264,219.
- Daley Canyon Road/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor)). The analysis is included in Appendix D and shows that the Saturday and Sunday peak hour warrants are met. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated and included in Appendix E. The fair share was calculated based on project traffic as a percentage of total growth from existing to year 2040. As shown in Appendix E, the project fair share at this intersection is 48.3%. In addition, cost estimates for installing a traffic signal are based on CMP guidelines, which states that a new signal costs approximately \$450,000. Therefore, the project's fair share contribution to the new signal is \$217,406.
 - Daley Canyon Access Road/State Route 18 - Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor)). The analysis is included in Appendix D and shows that the Saturday and Sunday peak hour warrants are met. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated and included in Appendix E. The fair share was calculated based on project traffic as a percentage of total growth from existing to year 2040. As shown in Appendix E, the project fair share at this intersection is 30.3%. In addition, cost estimates for installing a traffic signal are based on CMP guidelines, which states that a new signal costs approximately \$450,000. Therefore, the project's fair share contribution to the new signal is \$136,416.
 - State Route 173/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor)). The analysis is included in Appendix D and shows that the Saturday and Sunday peak hour warrants are met. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated and included in Appendix E. The fair share was calculated based on project traffic as a percentage of total growth from existing to year 2040. As shown in Appendix E, the project fair share at this intersection is 22.0%. In addition, cost estimates for installing a traffic signal are based on CMP guidelines, which states that a new signal costs approximately \$450,000. Therefore, the project's fair share contribution to the new signal is \$99,184.
 - Pine Avenue/State Route 18 – Install a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the Saturday and Sunday peak hours. This analysis is based on the 2014 Revision 3 California Manual of Uniform Traffic Control Devices (Warrant 3 – Peak Hour (70% Factor)). The analysis is included in Appendix D and shows that the Saturday and Sunday peak hour warrants are met. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated and included in Appendix E. The fair share was calculated based on project

traffic as a percentage of total growth from existing to year 2040. As shown in Appendix E, the project fair share at this intersection is 32.3%. In addition, cost estimates for installing a traffic signal are based on CMP guidelines, which states that a new signal costs approximately \$450,000. Therefore, the project's fair share contribution to the new signal is \$145,183.

Construction of these improvements will restore satisfactory operations. Table K show the resulting levels of service for year 2040 with project conditions and Figure 21 illustrates the year 2040 with project recommended improvements.

It should be noted that intersections were evaluated for roundabouts, however, due to the terrain, concerns with sight distance, and weather that includes snow fall during the winter, roundabouts were not considered as feasible mitigations within the project area.

9.0 QUEUING ANALYSIS

A queuing analysis was conducted for dedicated left-turn and right-turn lanes at study area intersections to determine if adequate storage is available for the queues under existing, opening year (2018), cumulative, and year 2040 without and with project scenarios. Tables L, M, N, and O list the queuing analyses. As shown in all queuing tables, the queues for all left-turn and right-turn lanes fit within the available storage lengths under without and with project scenarios. The project does not substantially increase queues at any of the intersections identified for evaluation.

10.0 IMPACT ANALYSIS FOR CEQA DETERMINATION

This section evaluates the CEQA checklist for impact evaluation.

A. Will the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system?

Based on the results of the analysis, the project does not degrade traffic operations below those acceptable in the County's General Plan after implementation of circulation improvements. The project is consistent with the County's adopted plans and policies. Therefore, the project impact is considered less than significant.

B. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The project does not conflict with the County's CMP and does not propose changes to the County's LOS standards. After improvements are constructed, all study intersections will operate at satisfactory conditions. Therefore, the project impact is considered less than significant after mitigation.

C. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The nearest airports to the project location is the Hesperia Airport, approximately 11 miles to the northwest, and the San Bernardino International Airport in Ontario, approximately 25 miles to the southwest. The project does not propose any use that would affect or conflict with air traffic patterns. Therefore, the project impact is considered less than-significant.

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

Design of driveways will be based on County and Code, which set the standard for such design. The project driveway would intersect perpendicularly with State Route 18 and would not create conflicts for motorists, pedestrians, or bicyclists traveling on State Route 18. It is not anticipated that traffic hazards will increase. Therefore, the project impact is considered less than significant.

Table K: Year 2040 With Project With Improvements Intersection Levels of Service

Intersection	LOS Standard	Control	With Project						Control	With Project With Improvements				Project Impact
			Saturday Peak Hour			Sunday Peak Hour				Saturday Peak Hour		Sunday Peak Hour		
			Delay	LOS	*	Delay	LOS	*		Delay	LOS	Delay	LOS	
4 . Bear Springs Road/State Route 18	D	TWSC	>100	F	*	54.7	F	*	Signal	20.9	C	19.6	B	NO
8 . Daley Canyon Road/State Route 189	D	AWSC	49.8	E	*	18.0	C		Signal	53.2	D	39.2	D	NO
10 . Daley Canyon Road/State Route 18	D	TWSC	56.5	F	*	37.9	E	*	Signal	32.6	C	32.4	C	NO
11 . Daley Canyon Access Road/State Route 18	D	TWSC	41.8	E	*	32.9	D		Signal	25.9	C	26.5	C	NO
17 . State Route 173/State Route 18	D	TWSC	>100	F	*	27.8	D		Signal	29.4	C	27.5	C	NO
18 . Pine Avenue/State Route 18	D	TWSC	>100	F	*	34.3	D		Signal	11.5	B	14.5	B	NO

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

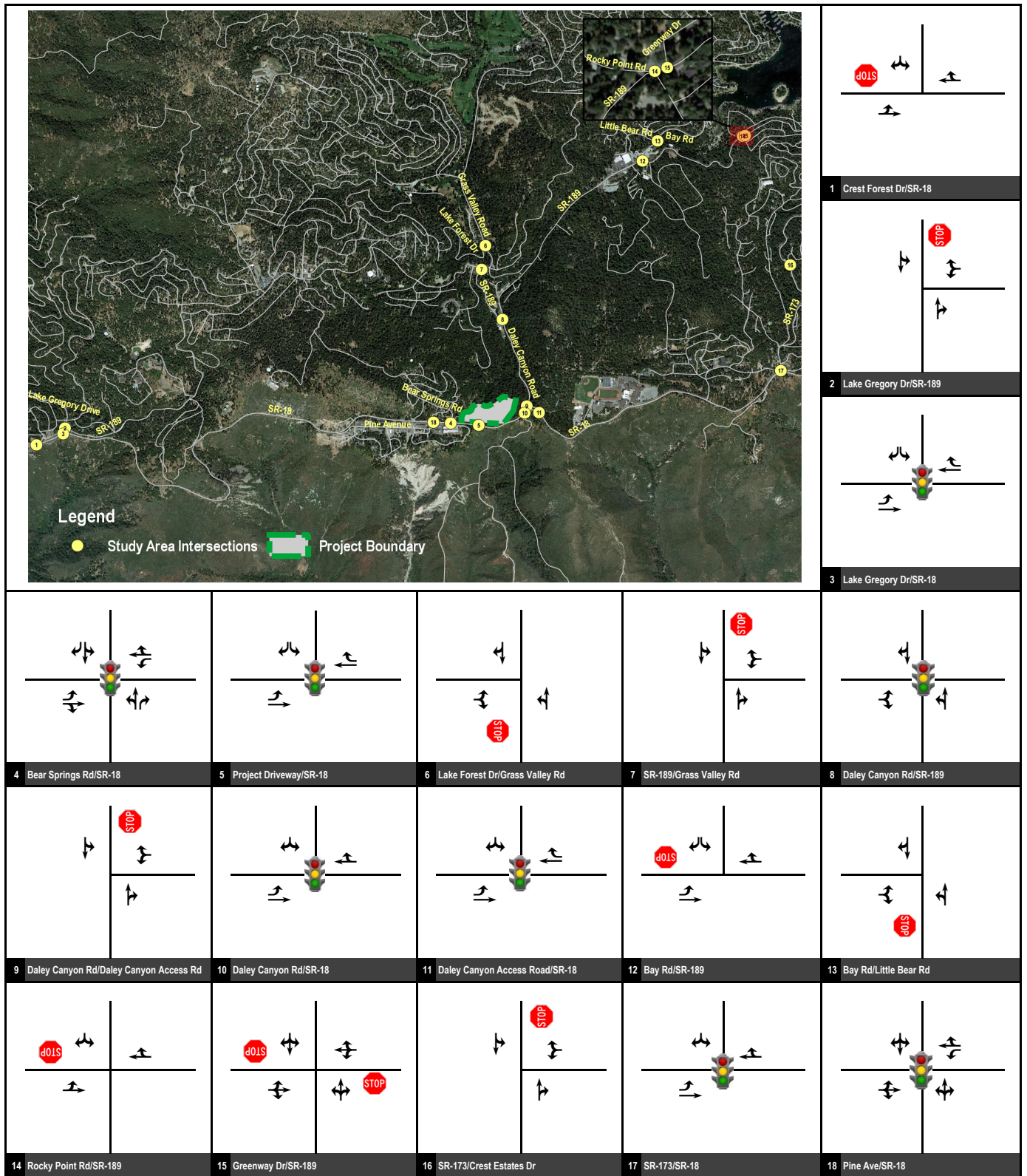


FIGURE 21

Legend



Church of the Woods
Year 2040 With Project With Improvements
Intersection Geometrics and Stop Control

Table L: Existing Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Existing		Existing With Project	
			Saturday Peak Hour	Sunday Peak Hour	Saturday Peak Hour	Sunday Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
3 . Lake Gregory Drive/State Route 18	EBL	425	88	86	88	87
	WBR	200	34	27	36	29
4 . Bear Springs Road/State Route 18	EBL	60	25	25	25	25
	WBL	65	0	0	0	0
5 . Project Driveway/State Route 18	EBL	250	-	-	68	75
	WBR	150	-	-	25	29
7 . State Route 189/Grass Valley Road	SBL	100	25	25	25	25
10 . Daley Canyon Road/State Route 18	EBL	100	25	25	50	25
11 . Daley Canyon Access Road/State Route 18	EBL	75	0	0	0	0
12 . Bay Road/State Route 189	EBL	75	50	25	75	50
	SBL	65	25	25	25	25
17 . State Route 173/State Route 18	EBL	100	25	25	25	25
18 . Pine Avenue/State Route 18	WBL	65	25	25	25	25

Notes:

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

Table M: Opening Year (2018) Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Existing		Existing With Project	
			Saturday Peak Hour	Sunday Peak Hour	Saturday Peak Hour	Sunday Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
3 . Lake Gregory Drive/State Route 18	EBL	425	89	89	89	91
	WBR	200	34	27	36	29
4 . Bear Springs Road/State Route 18	EBL	60	25	25	25	25
	WBL	65	0	0	0	0
5 . Project Driveway/State Route 18	EBL	250	-	-	68	75
	WBR	150	-	-	25	29
7 . State Route 189/Grass Valley Road	SBL	100	25	25	25	25
10 . Daley Canyon Road/State Route 18	EBL	100	25	25	50	25
11 . Daley Canyon Access Road/State Route 18	EBL	75	0	0	0	0
12 . Bay Road/State Route 189	EBL	75	50	25	75	50
	SBL	65	25	25	25	25
17 . State Route 173/State Route 18	EBL	100	25	25	25	25
18 . Pine Avenue/State Route 18	WBL	65	25	25	25	25

Notes:

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

Table N: Cumulative Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Existing		Existing With Project	
			Saturday Peak Hour	Sunday Peak Hour	Saturday Peak Hour	Sunday Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
3 . Lake Gregory Drive/State Route 18	EBL	425	104	88	104	89
	WBR	200	34	27	36	30
4 . Bear Springs Road/State Route 18	EBL	60	25	25	25	25
	WBL	65	0	0	0	0
5 . Project Driveway/State Route 18	EBL	250	-	-	68	75
	WBR	150	-	-	25	30
7 . State Route 189/Grass Valley Road	SBL	100	25	25	25	25
10 . Daley Canyon Road/State Route 18	EBL	100	25	25	50	25
11 . Daley Canyon Access Road/State Route 18	EBL	75	0	0	0	0
12 . Bay Road/State Route 189	EBL	75	50	25	75	50
	SBL	65	25	25	25	25
17 . State Route 173/State Route 18	EBL	100	25	25	25	25
18 . Pine Avenue/State Route 18	WBL	65	25	25	25	25

Notes:

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

Table O: Year 2040 Queuing Analysis

Intersection	Movement	Storage Length (In Feet)	Existing		Existing With Project	
			Saturday Peak Hour	Sunday Peak Hour	Saturday Peak Hour	Sunday Peak Hour
			Queue Length ¹	Queue Length ¹	Queue Length ¹	Queue Length ¹
3 . Lake Gregory Drive/State Route 18	EBL	425	108	93	108	93
	WBR	200	42	35	45	38
4 . Bear Springs Road/State Route 18	EBL	60	25	25	25	25
	WBL	65	0	0	0	0
5 . Project Driveway/State Route 18	EBL	250	-	-	66	73
	WBR	150	-	-	28	35
7 . State Route 189/Grass Valley Road	SBL	100	25	25	25	25
10 . Daley Canyon Road/State Route 18	EBL	100	50	25	50	25
11 . Daley Canyon Access Road/State Route 18	EBL	75	0	0	0	0
12 . Bay Road/State Route 189	EBL	75	50	25	75	50
	SBL	65	25	25	25	25
17 . State Route 173/State Route 18	EBL	100	25	25	50	25
18 . Pine Avenue/State Route 18	WBL	65	25	25	25	25

Notes:

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

E. Result in inadequate emergency access?

The project includes a dedicated driveway on State Route 18 to be used for emergency access vehicles only and will be designed in accordance with all applicable design and safety standards required by adopted fire codes, safety codes, and building codes established by the County's Engineering and Fire Departments as well as Caltrans. The project will not result in inadequate emergency access. Therefore, the project impact is considered less than significant.

F. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The project would not conflict with adopted policies supporting alternative transportation modes. The project will not change roadway designations from those in the County's General Plan. The project will also not result in removal of any of the facilities listed above. Therefore, the project impact is considered less than significant.

11.0 SUMMARY & CONCLUSIONS

The proposed project is forecast to generate 390 trips in the Saturday peak hour, 394 trips in the Sunday peak hour, 657 Saturday trips, and 1,112 Sunday trips.

Two intersections are forecast to operate at unsatisfactory levels of service under Existing Plus Project Conditions, of which one currently operates at unsatisfactory operations. The project, has a direct impact both locations. The recommendation for these locations is the installation of a traffic signal, which restores satisfactory operations.

Under Opening Year conditions, the same intersection continues to operate at unsatisfactory conditions, and the same two intersections are forecast to operate at unsatisfactory levels of service under Opening Year With Project conditions. All study intersections would operate at satisfactory levels of service with the implementation of the recommended improvements.

Under Cumulative conditions, the same two intersections are forecast to operate at unsatisfactory conditions, and under Opening Year Cumulative With Project conditions, four intersections are forecast to operate at unsatisfactory conditions. All study intersections would operate at satisfactory levels of service with the implementation of the recommended improvements.

Under Year 2040 conditions, the three intersections are forecast to operate at unsatisfactory conditions, and under Year 2040 With Project conditions, six intersections are forecast to operate at unsatisfactory conditions. All study intersections would operate at satisfactory levels of service with the implementation of the recommended improvements.

APPENDIX B: VOLUME DEVELOPMENT WORKSHEETS

ITM Peak Hour Summary

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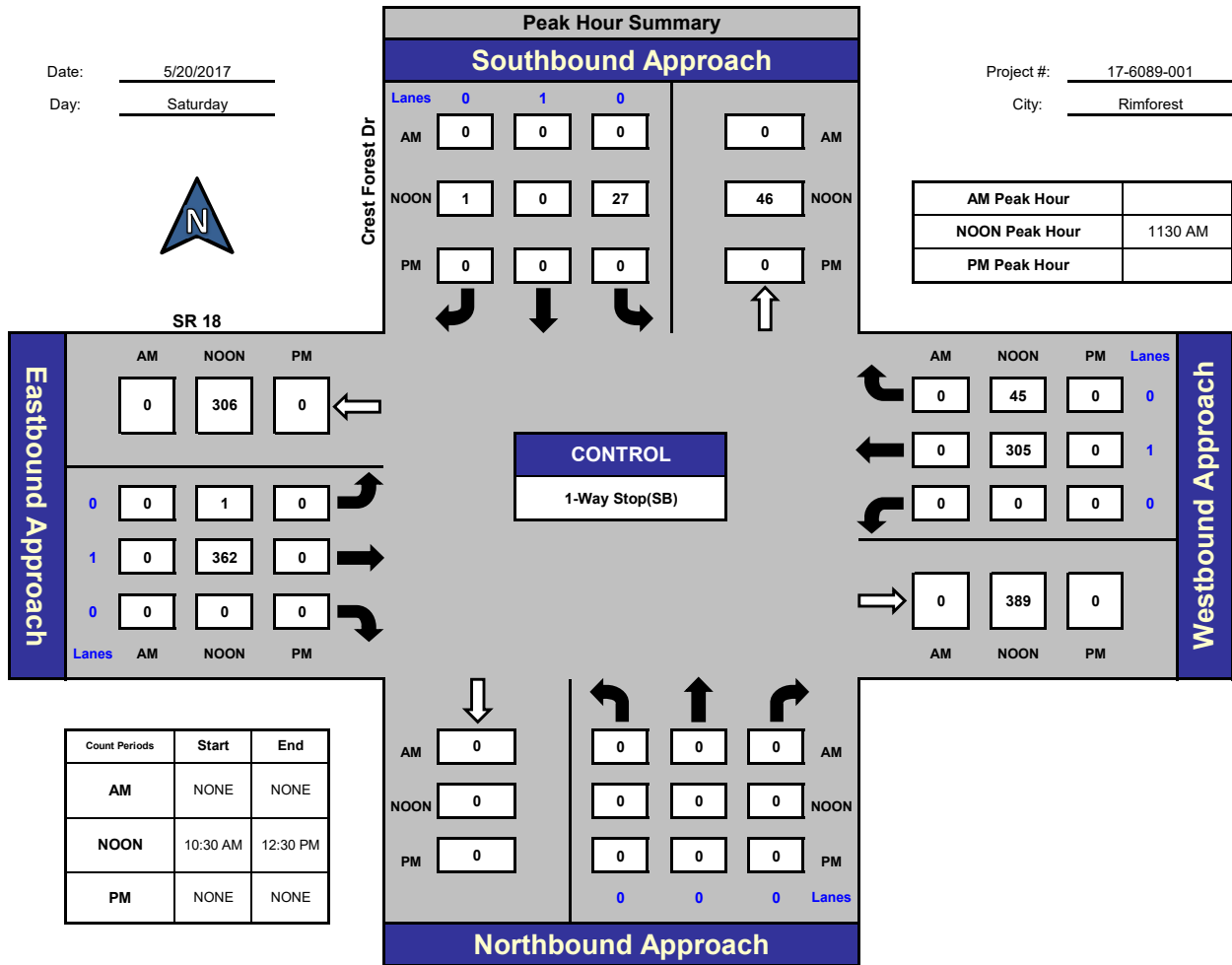


National Data & Surveying Services

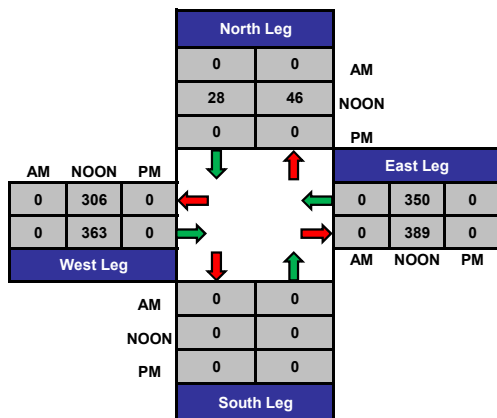
Crest Forest Dr and SR 18, Rimforest

Date: 5/20/2017
Day: Saturday

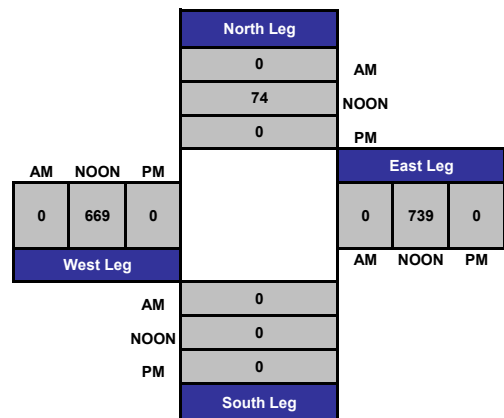
Project #: 17-6089-001
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

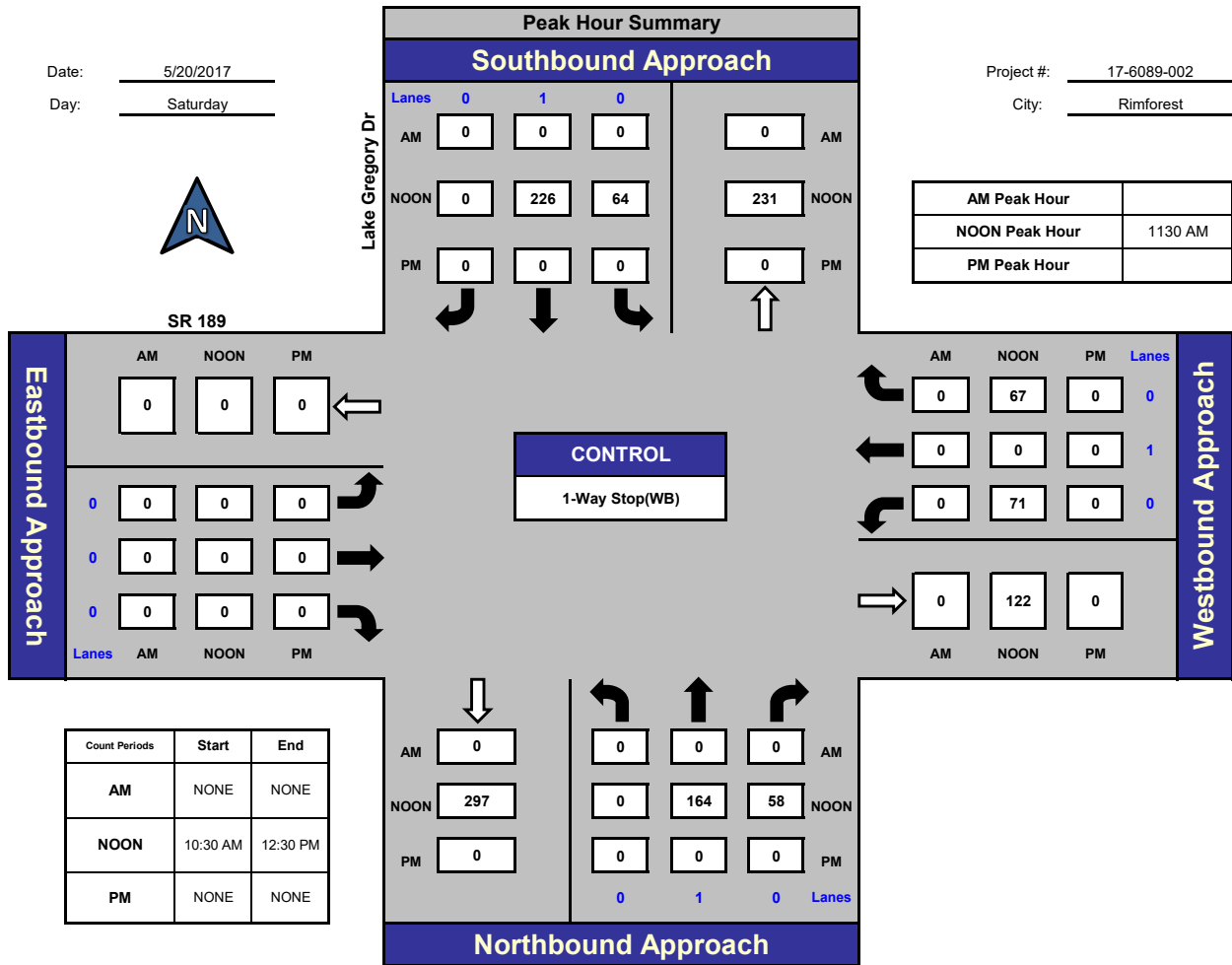


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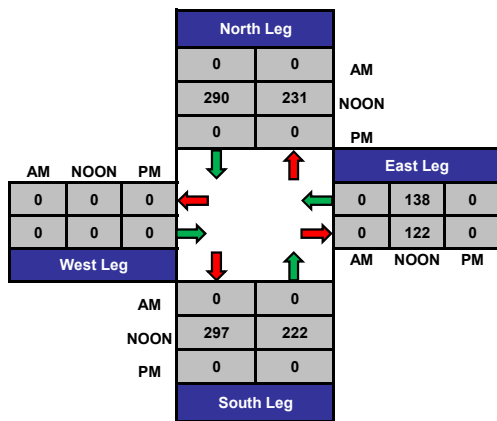
Lake Gregory Dr and SR 189, Rimforest

Date: 5/20/2017
Day: Saturday

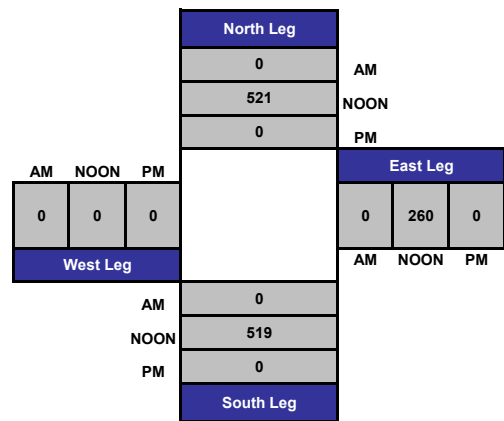
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

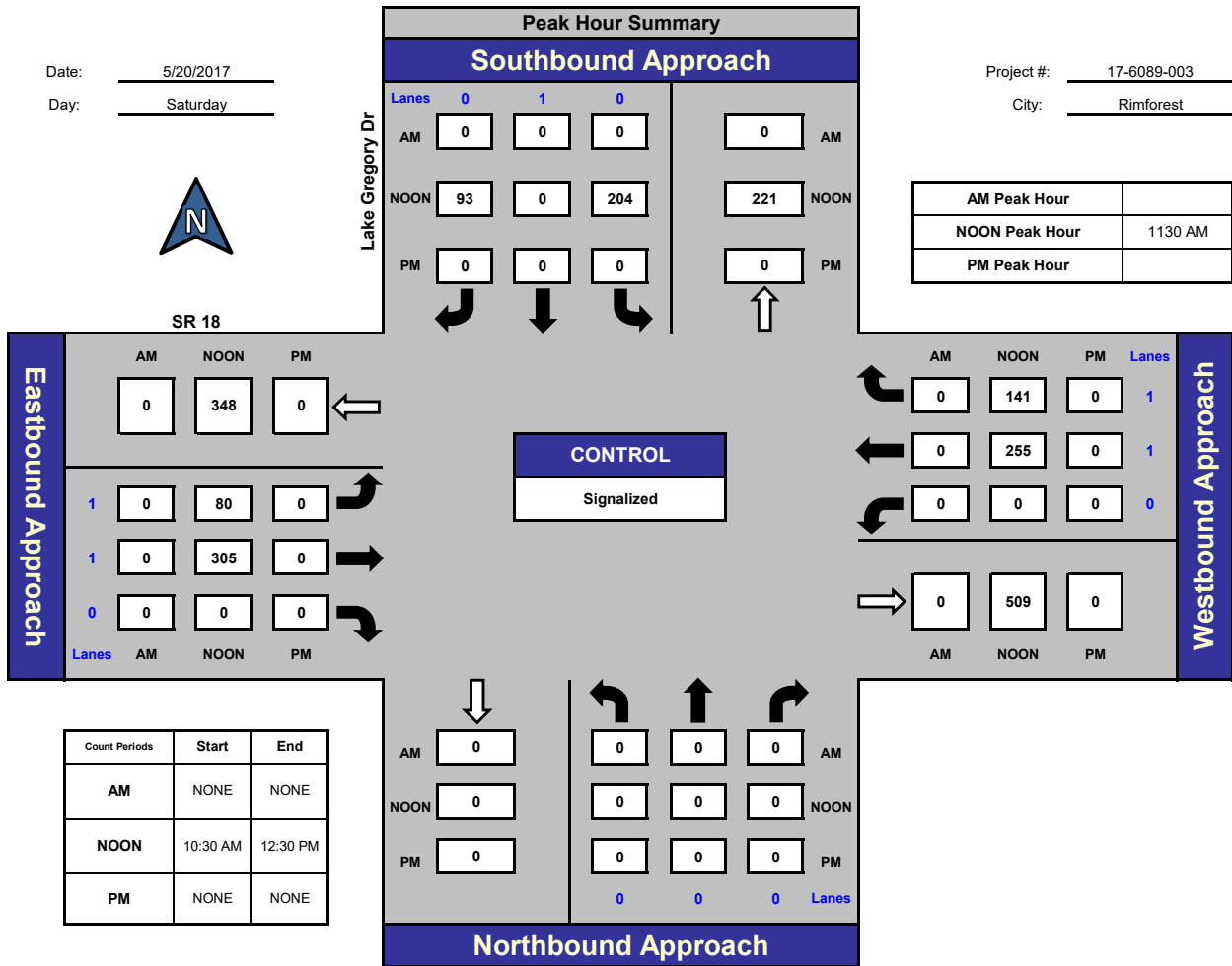


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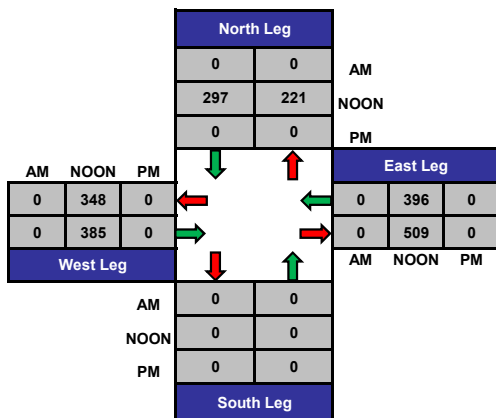
Lake Gregory Dr and SR 18, Rimforest

Date: 5/20/2017
Day: Saturday

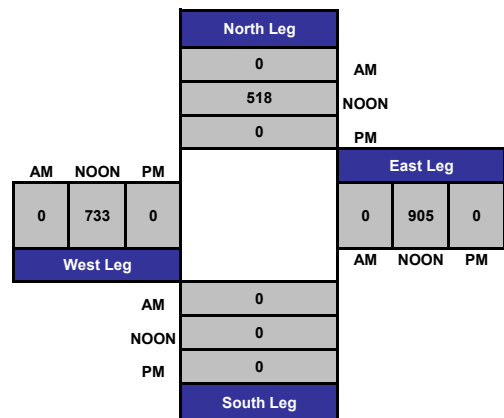
Project #: 17-6089-003
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

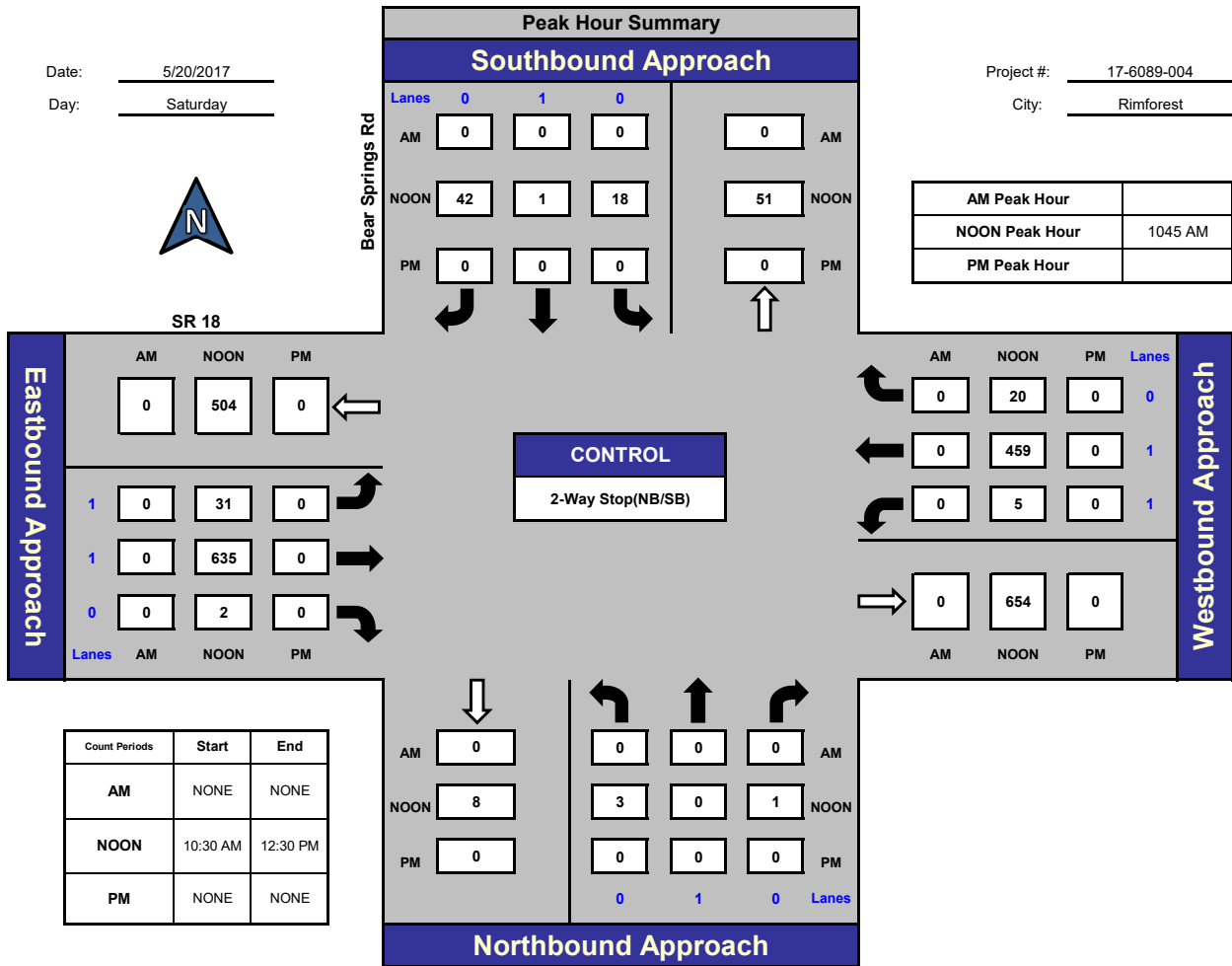
Bear Springs Rd and SR 18, Rimforest

Date: 5/20/2017

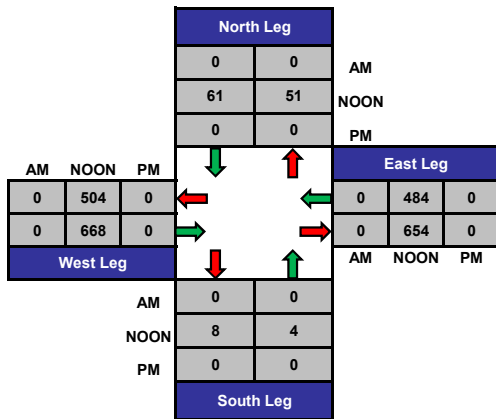
Day: Saturday

Project #: 17-6089-004

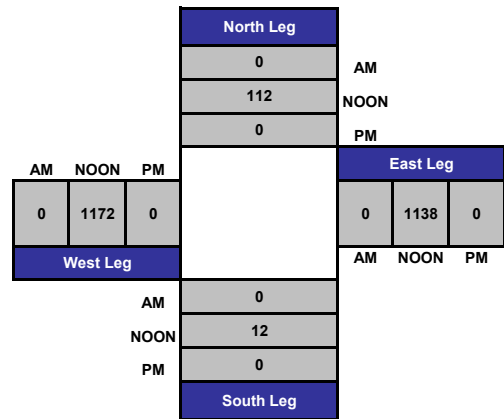
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

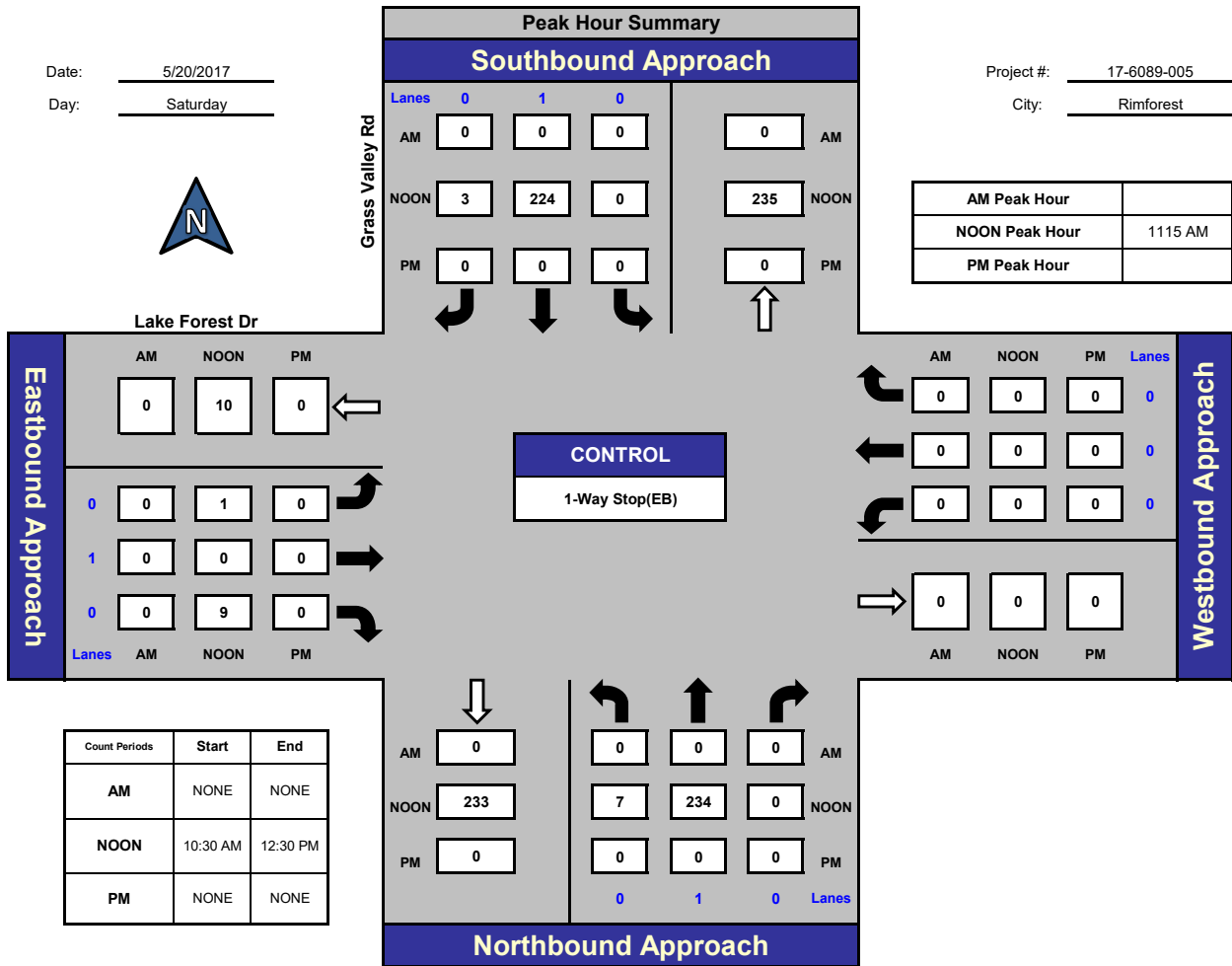


National Data & Surveying Services

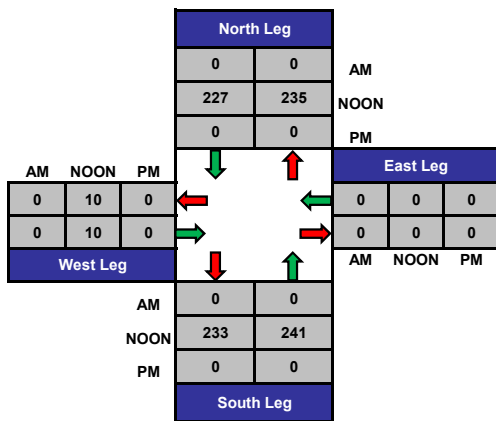
Grass Valley Rd and Lake Forest Dr, Rimforest

Date: 5/20/2017
Day: Saturday

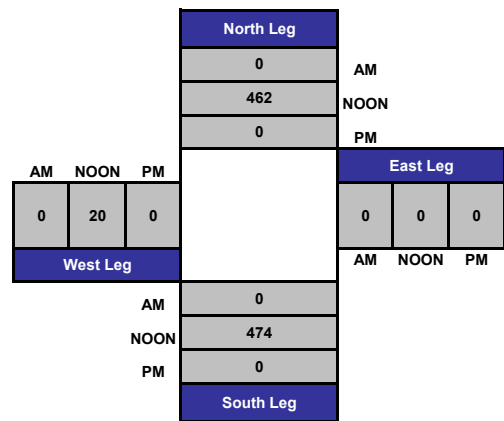
Project #: 17-6089-005
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

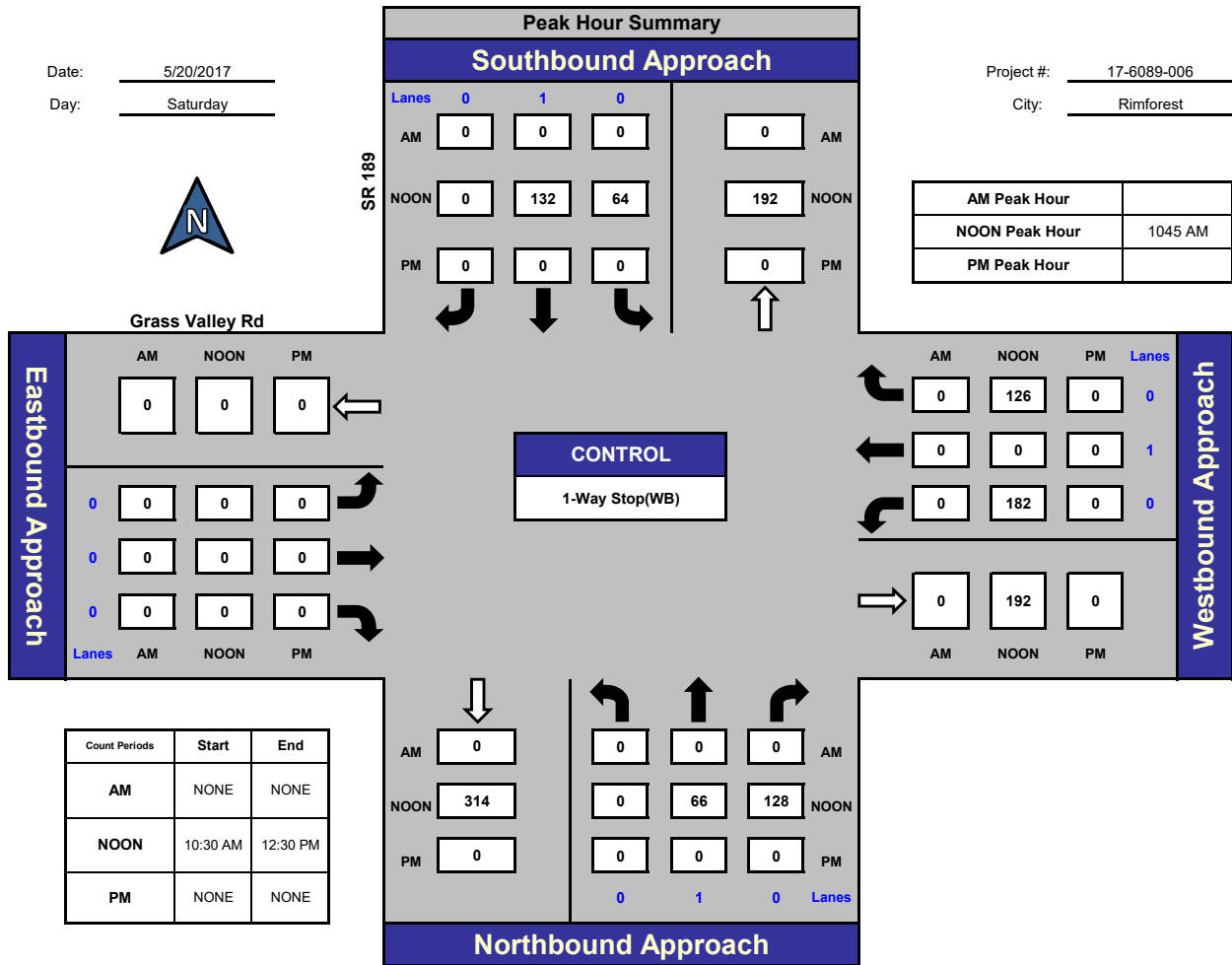


National Data & Surveying Services

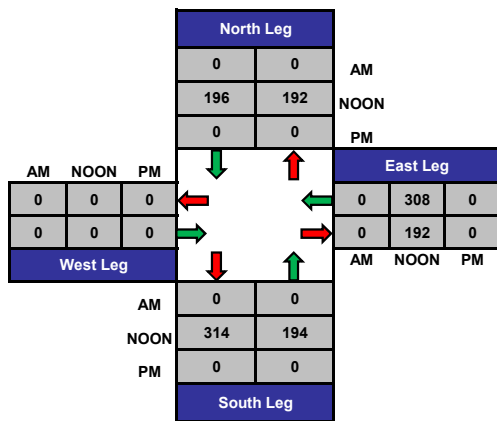
SR 189 and Grass Valley Rd , Rimforest

Date: 5/20/2017
Day: Saturday

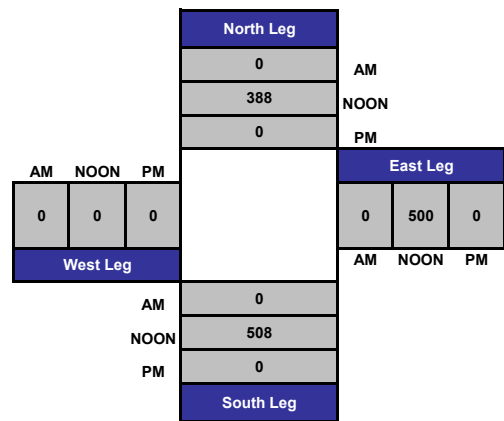
Project #: 17-6089-006
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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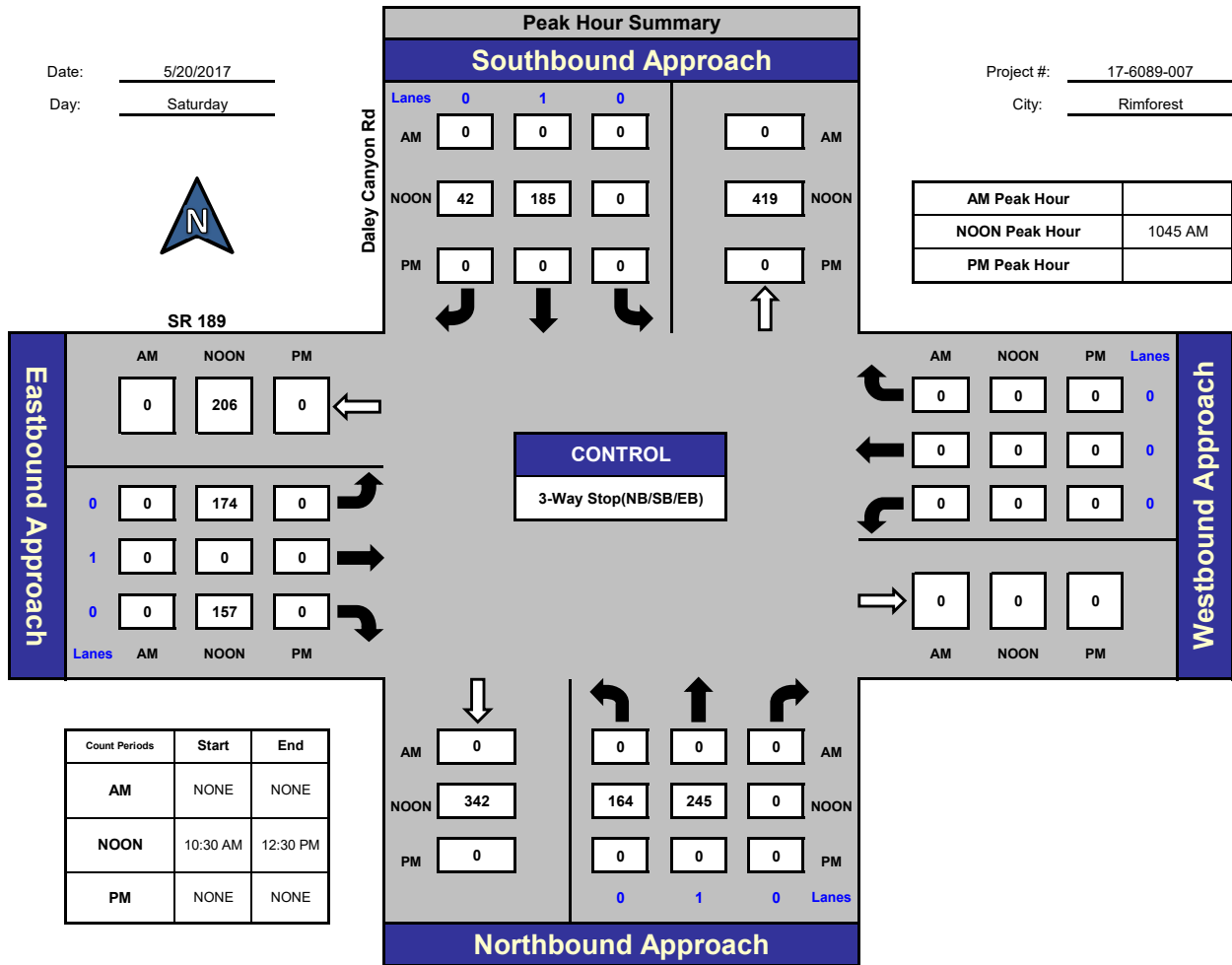


National Data & Surveying Services

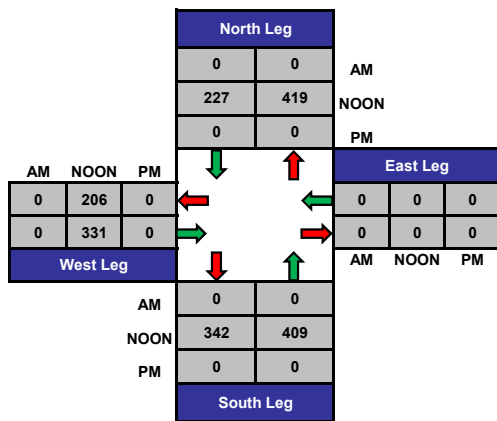
Daley Canyon Rd and SR 189, Rimforest

Date: 5/20/2017
Day: Saturday

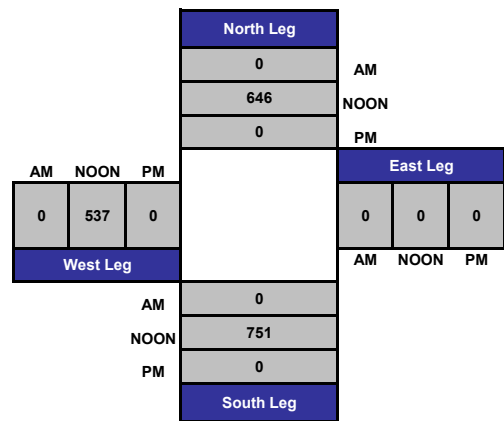
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

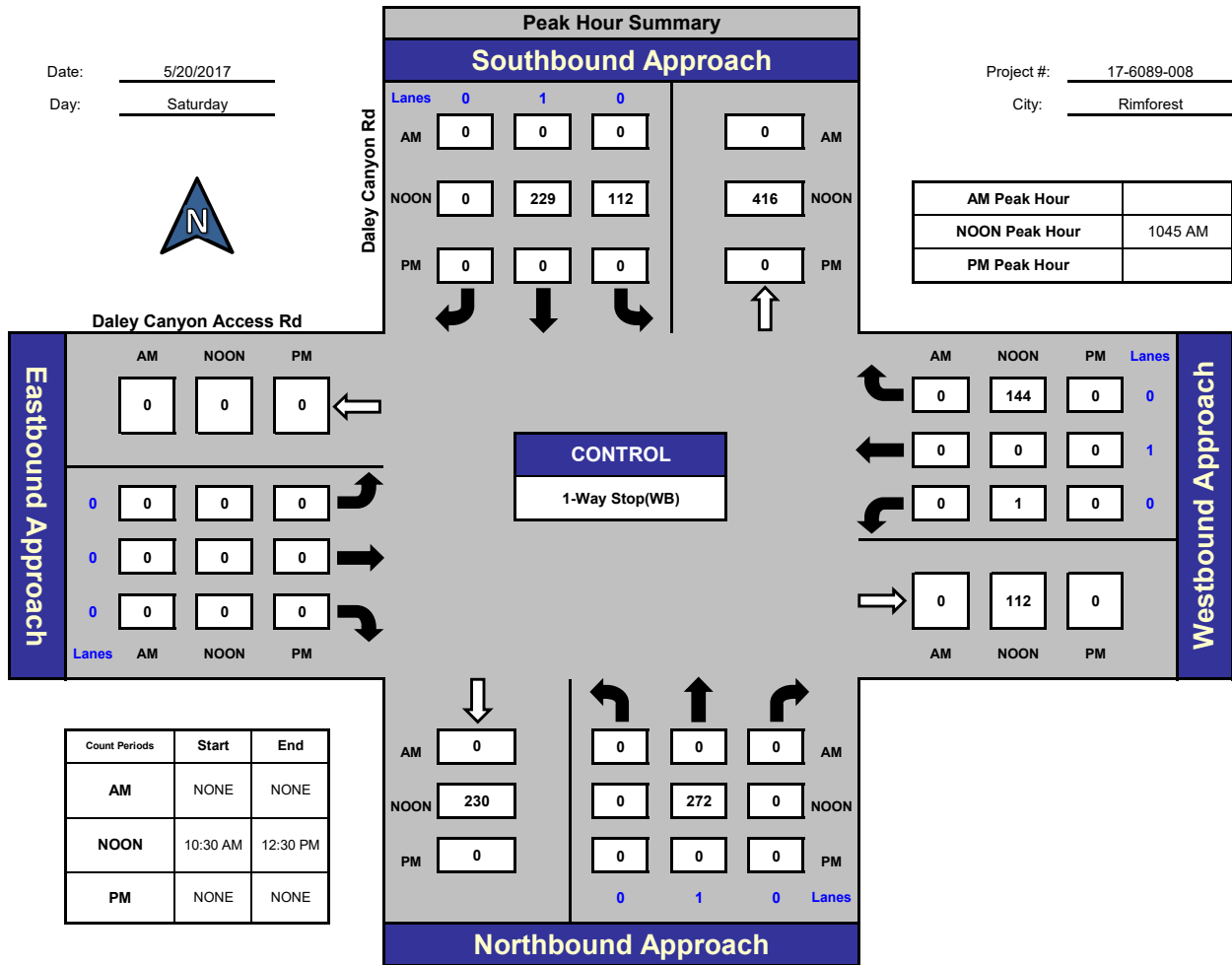


National Data & Surveying Services

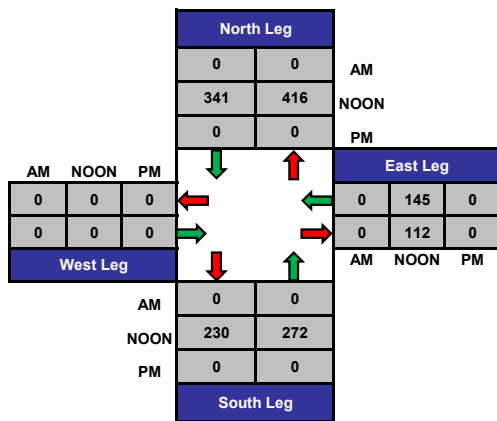
Daley Canyon Rd and Daley Canyon Access Rd, Rimforest

Date: 5/20/2017
Day: Saturday

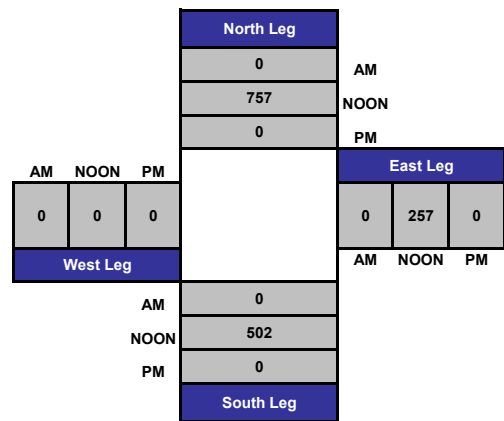
Project #: 17-6089-008
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



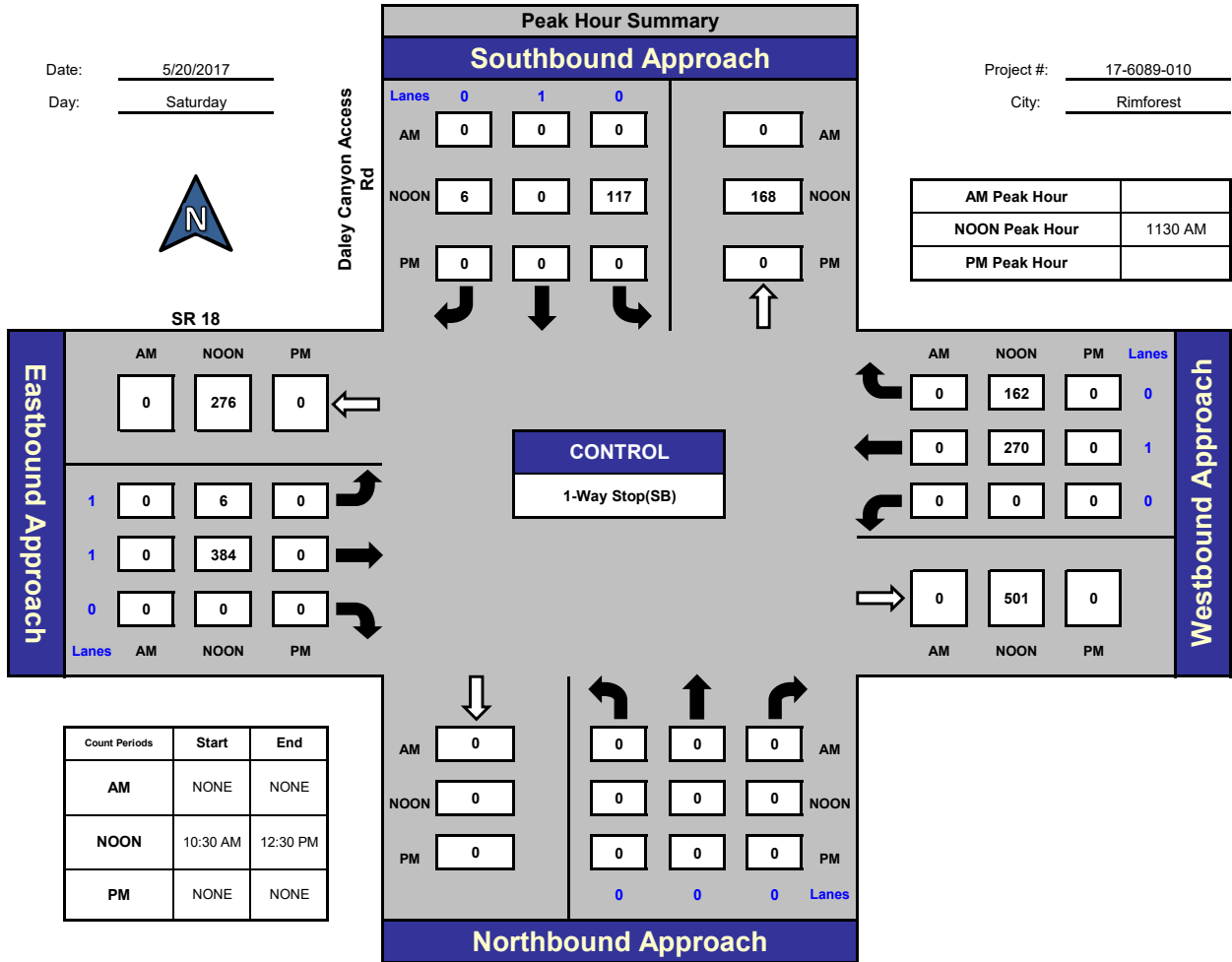
National Data & Surveying Services

Daley Canyon Access Rd and SR 18, Rimforest

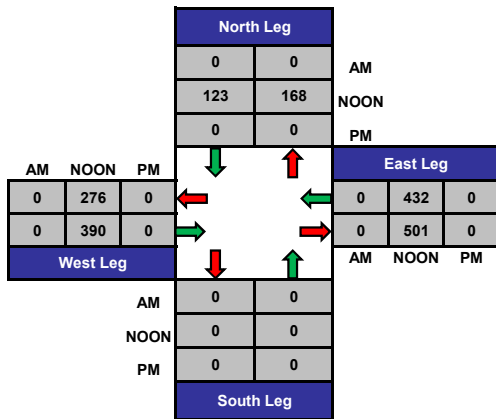
Date: 5/20/2017
Day: Saturday



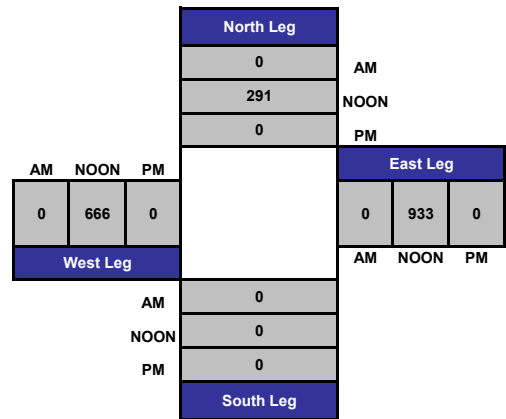
Project #: 17-6089-010
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

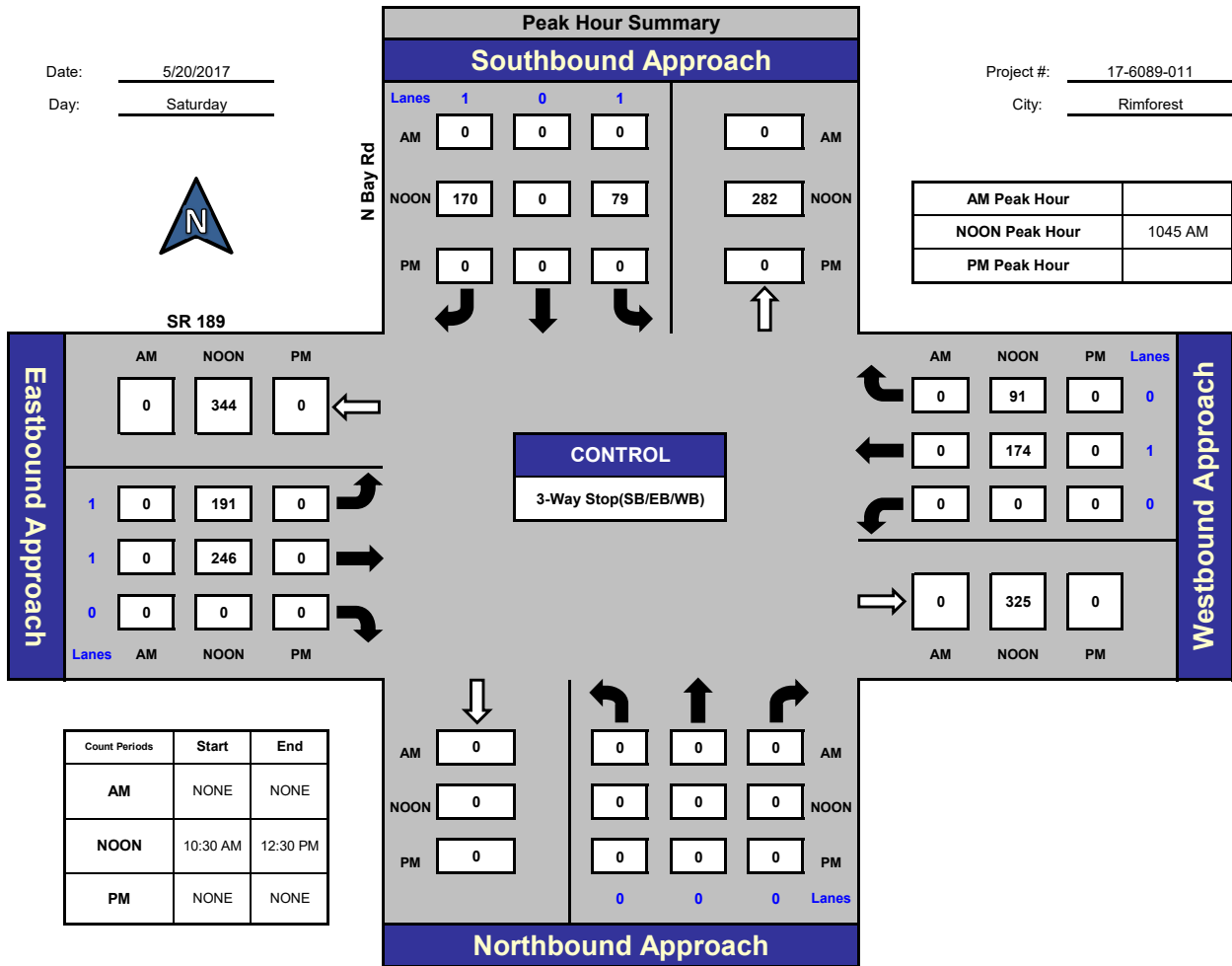


National Data & Surveying Services

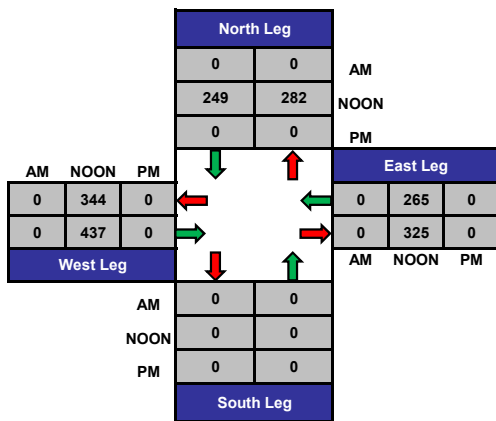
N Bay Rd and SR 189, Rimforest

Date: 5/20/2017
Day: Saturday

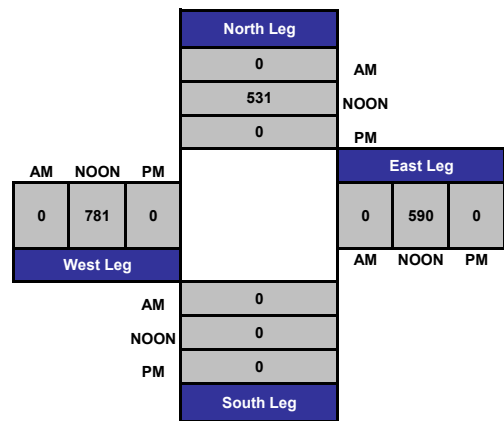
Project #: 17-6089-011
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

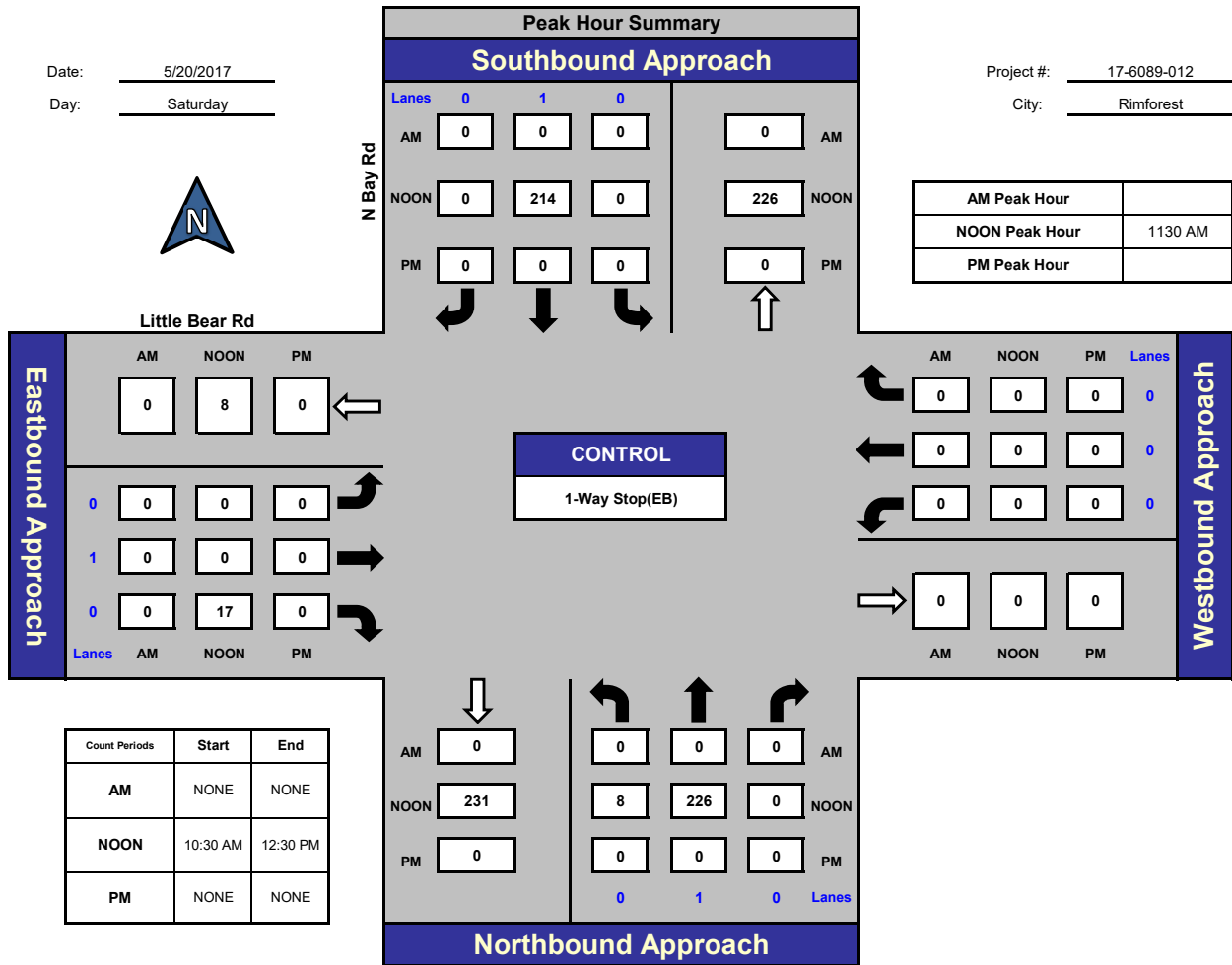


National Data & Surveying Services

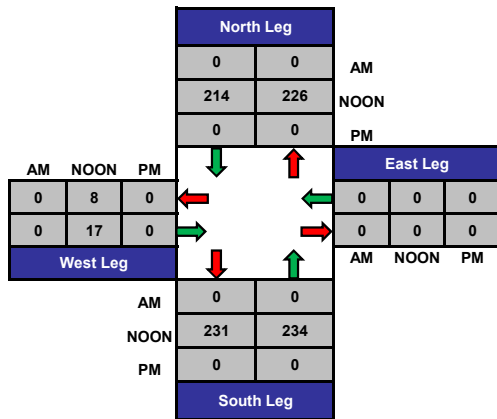
N Bay Rd and Little Bear Rd, Rimforest

Date: 5/20/2017
Day: Saturday

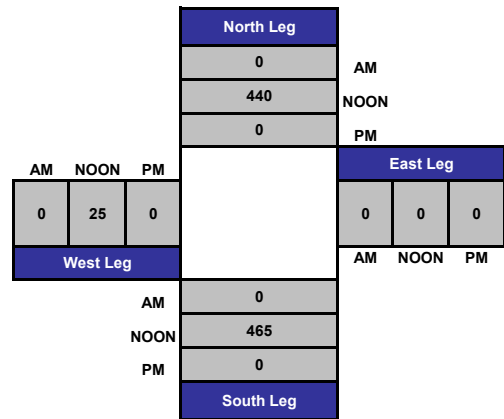
Project #: 17-6089-012
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

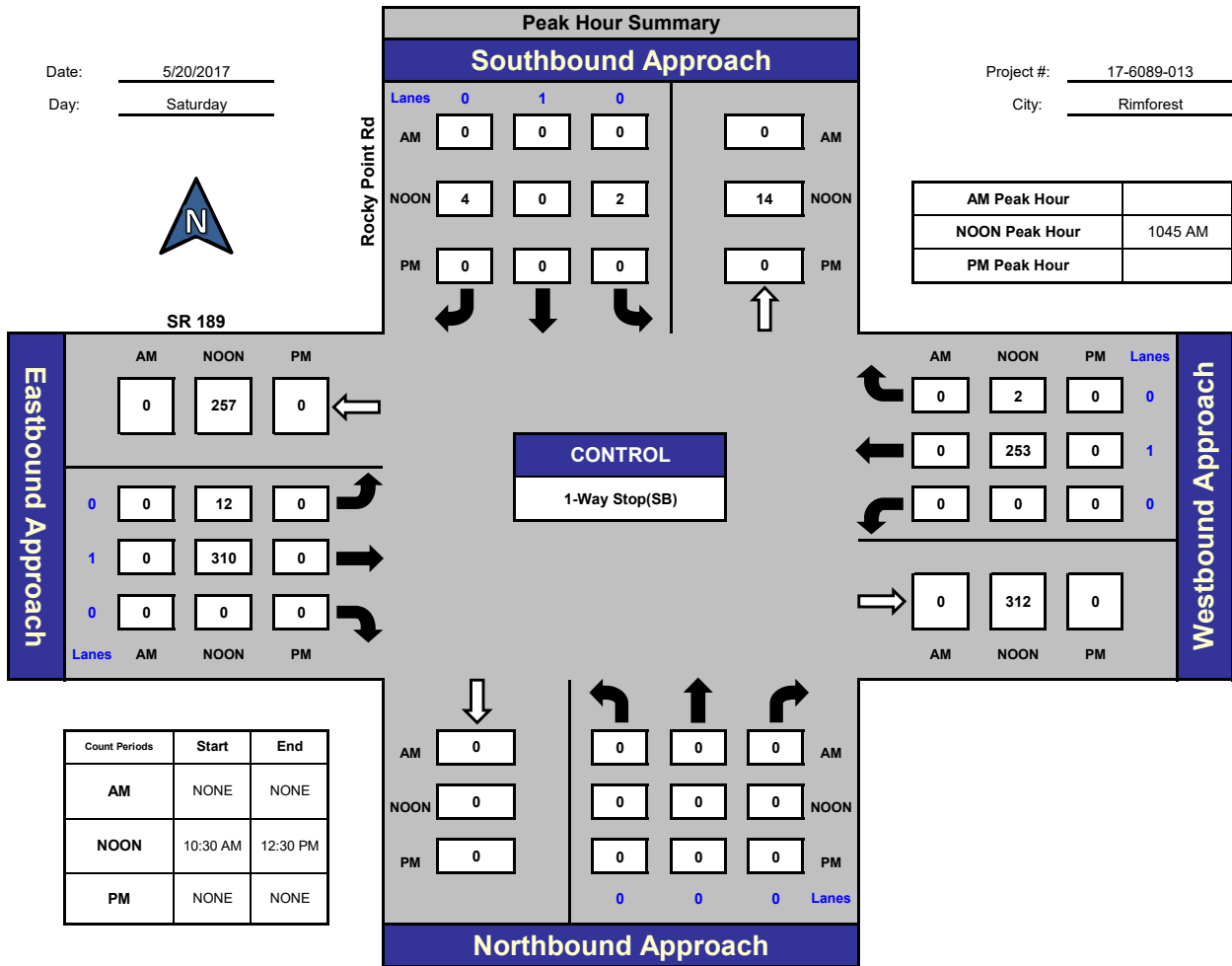


National Data & Surveying Services

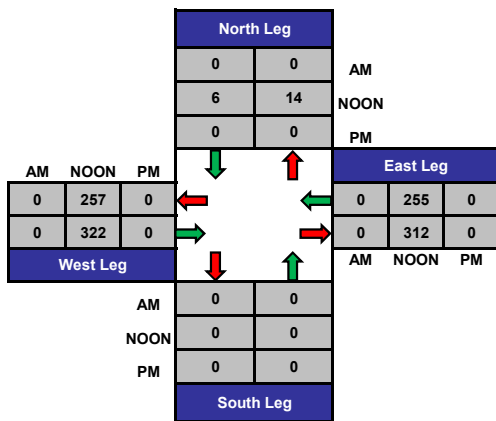
Rocky Point Rd and SR 189, Rimforest

Date: 5/20/2017
Day: Saturday

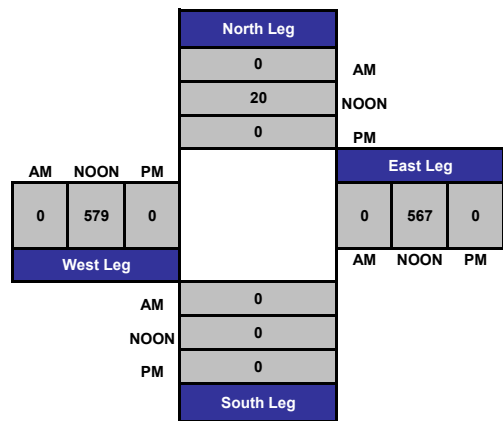
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

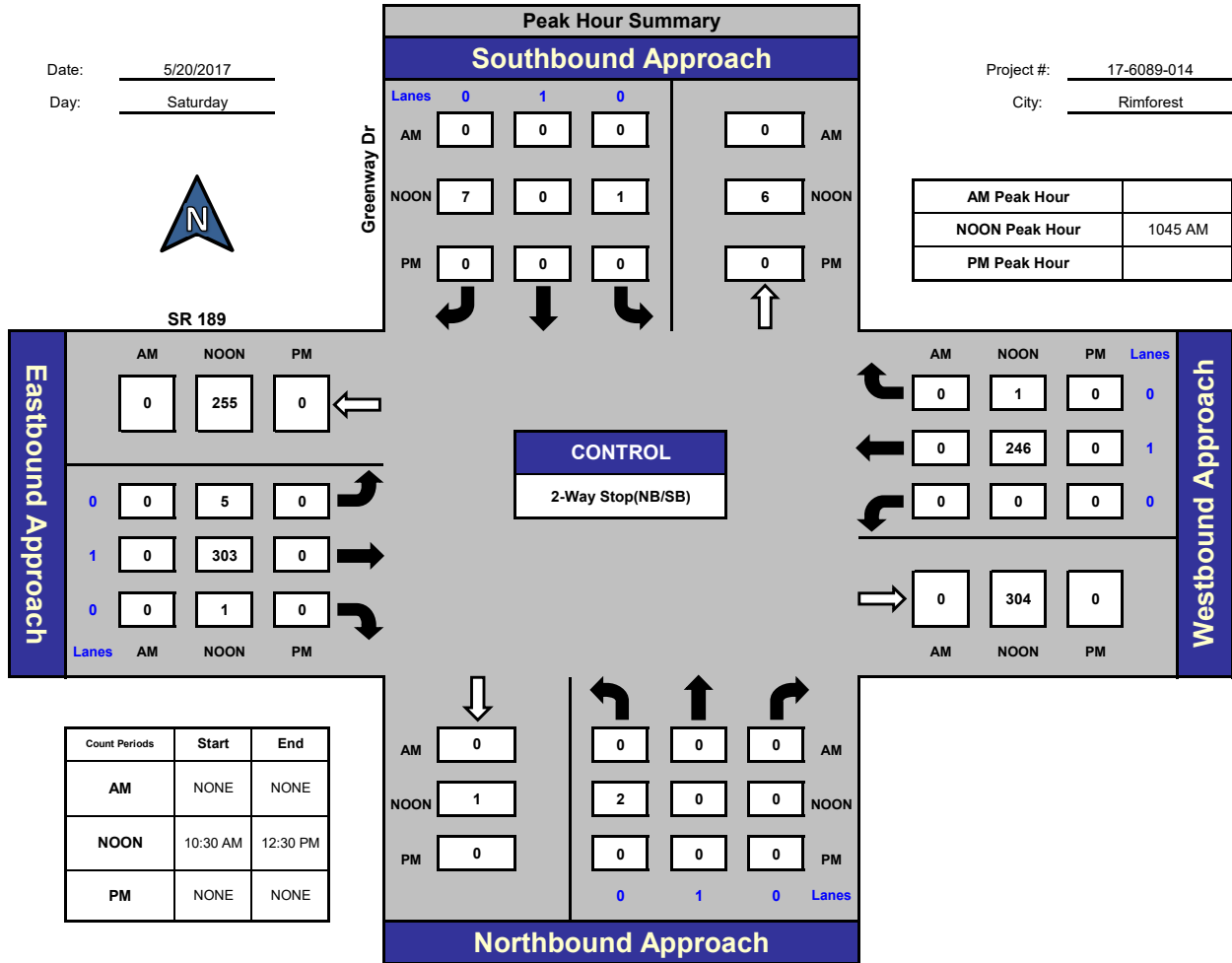
Greenway Dr and SR 189, Rimforest

Date: 5/20/2017

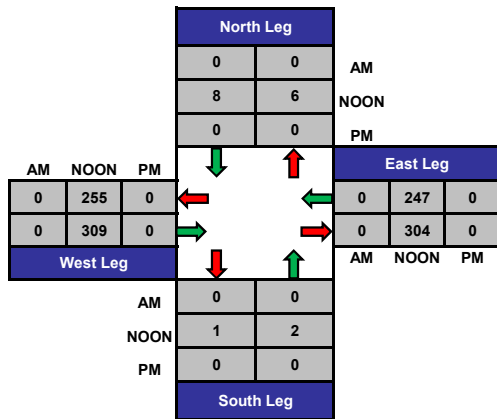
Day: Saturday

Project #: 17-6089-014

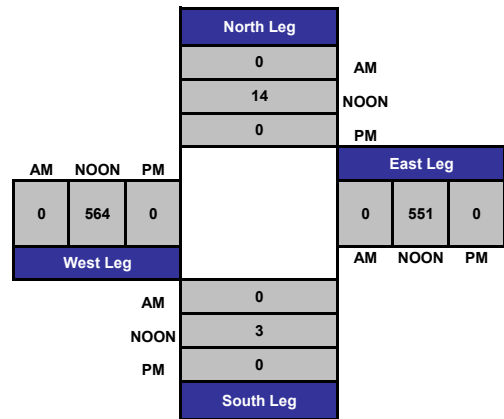
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

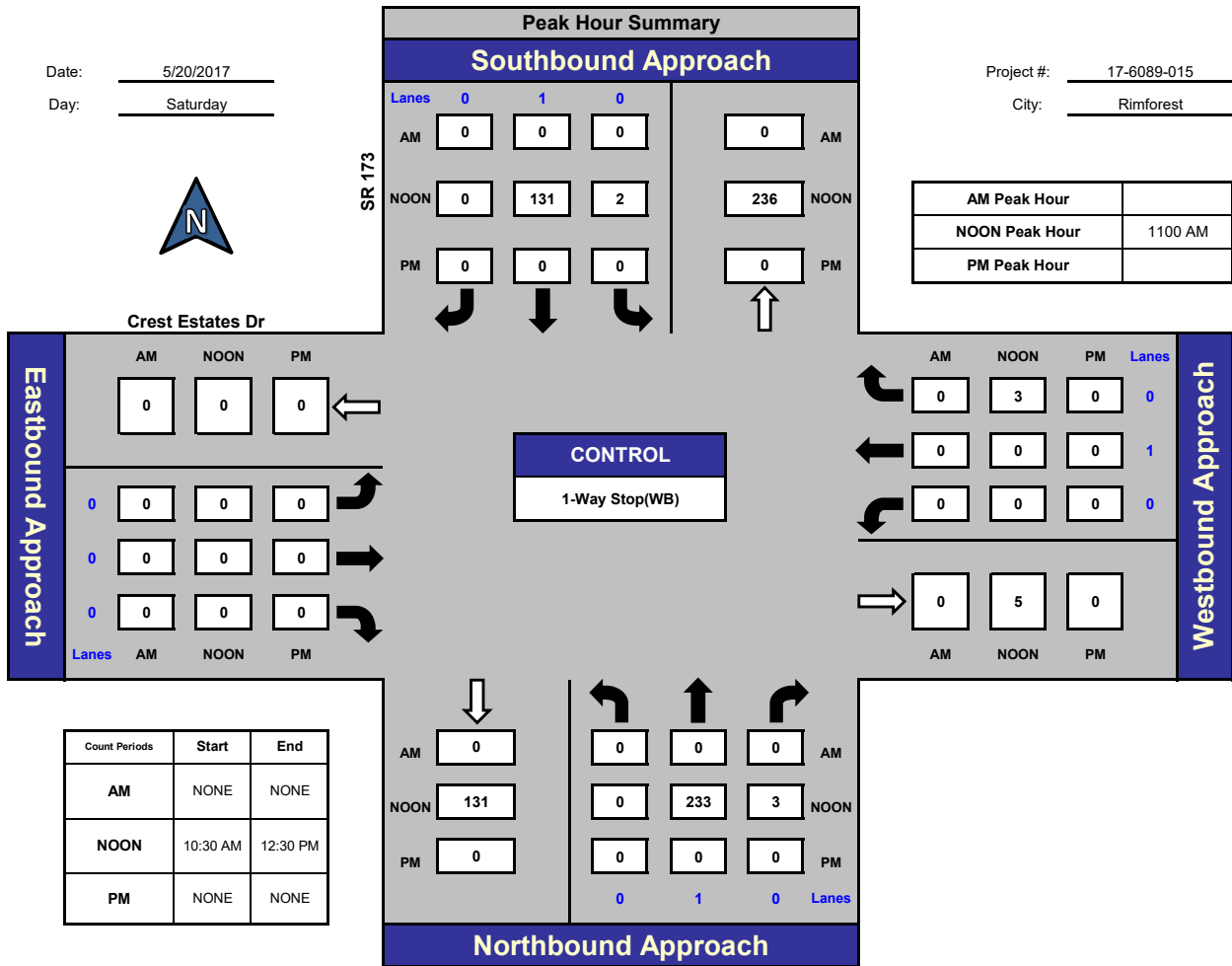


National Data & Surveying Services

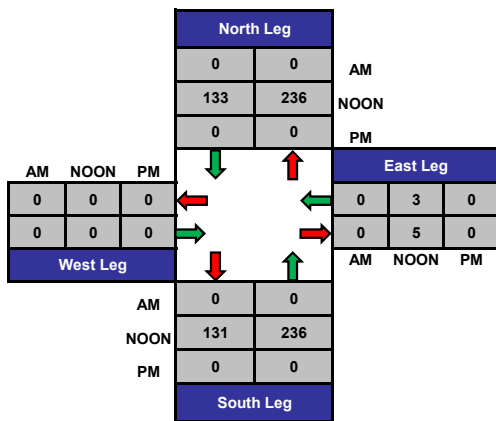
SR 173 and Crest Estates Dr , Rimforest

Date: 5/20/2017
Day: Saturday

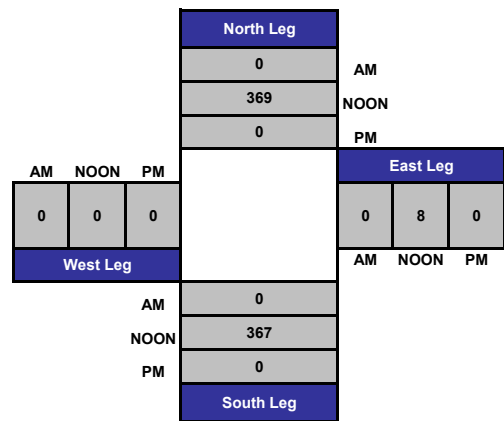
Project #: 17-6089-015
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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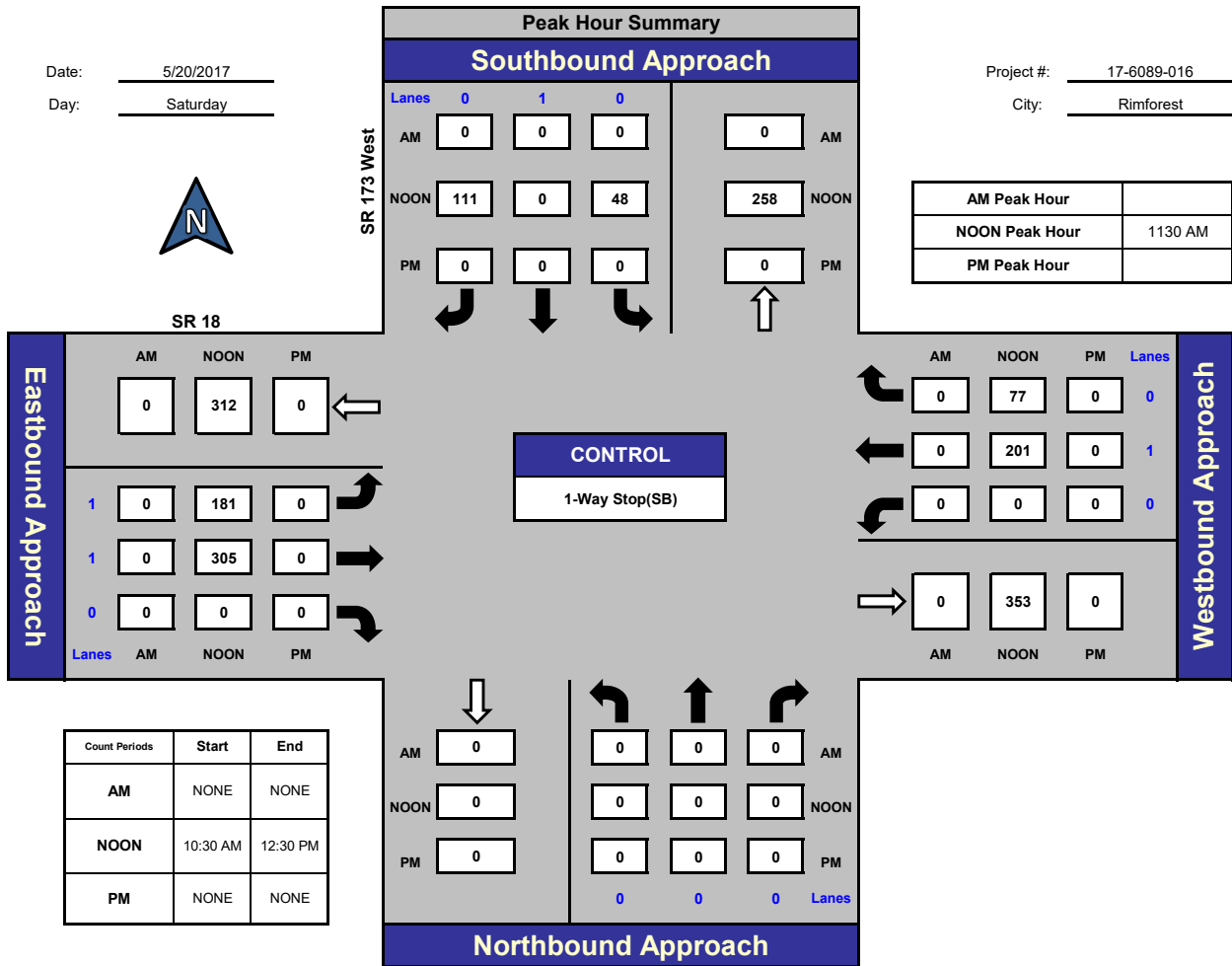


National Data & Surveying Services

SR 173 West and SR 18, Rimforest

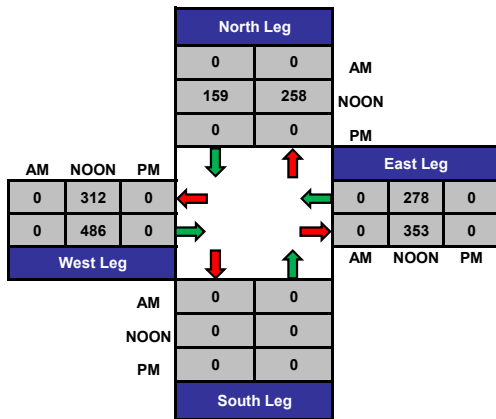
Date: 5/20/2017
Day: Saturday

Project #: 17-6089-016
City: Rimforest

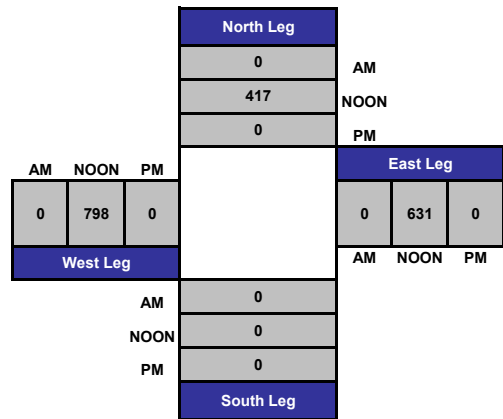


Count Periods	Start	End
AM	NONE	NONE
NOON	10:30 AM	12:30 PM
PM	NONE	NONE

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

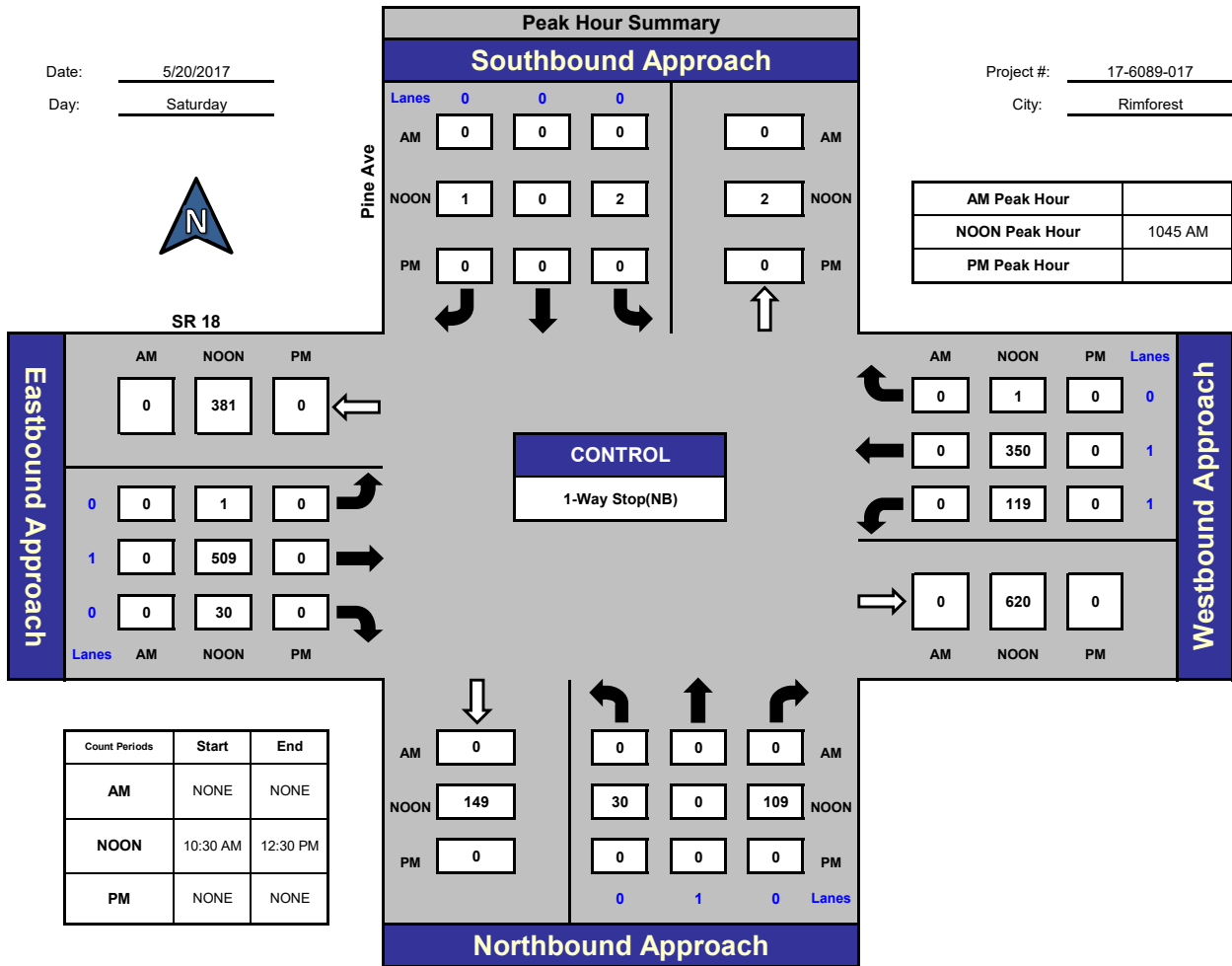


National Data & Surveying Services

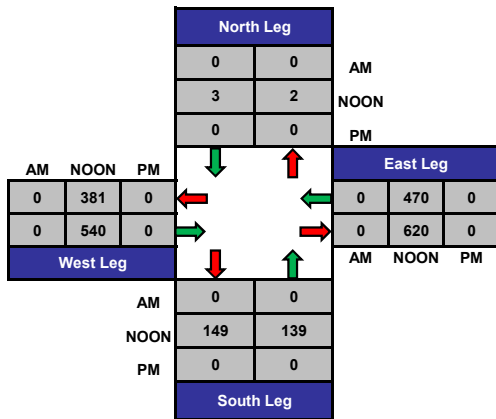
Pine Ave and SR 18, Rimforest

Date: 5/20/2017
Day: Saturday

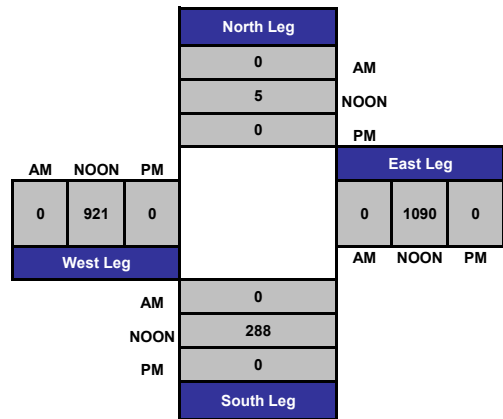
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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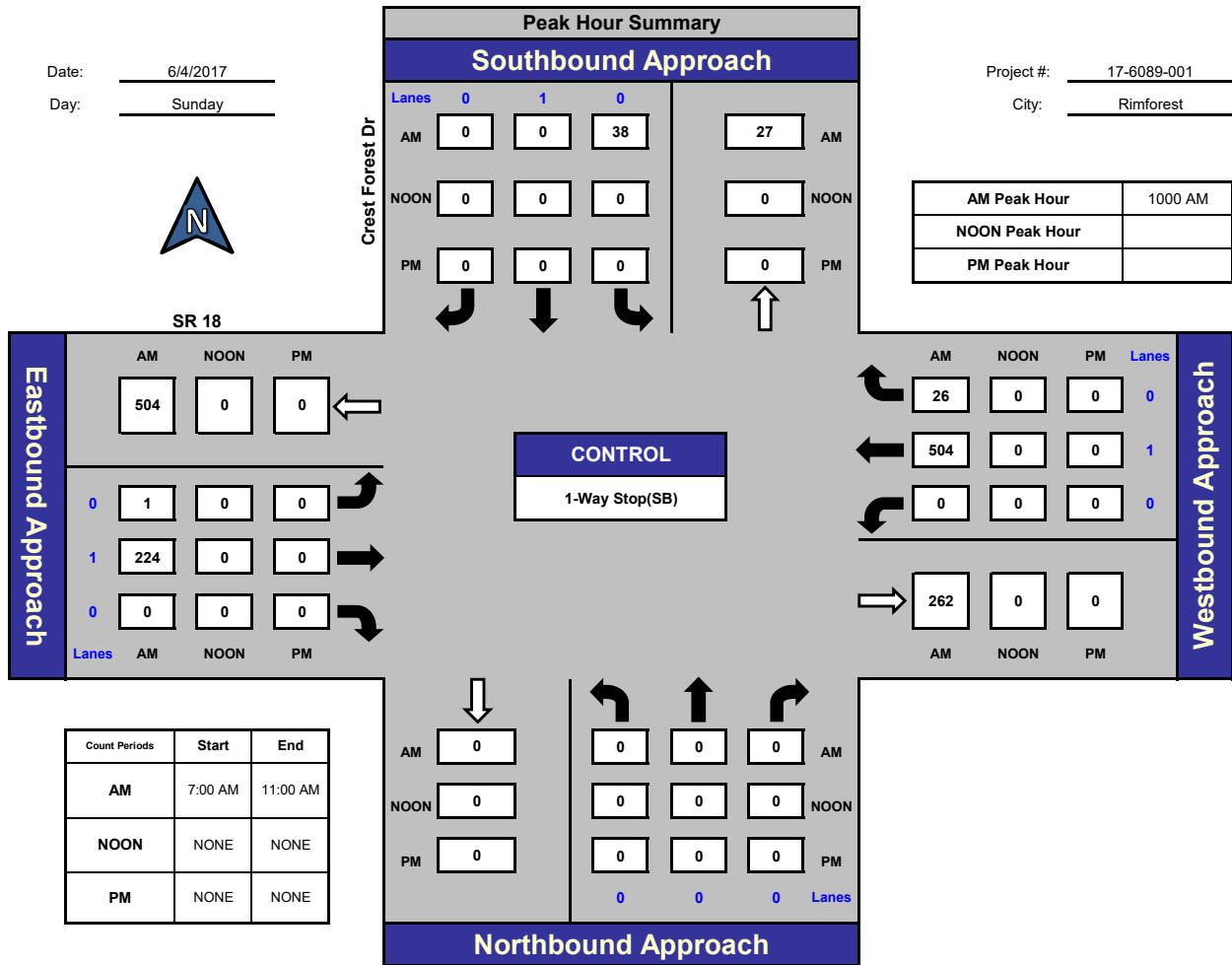


National Data & Surveying Services

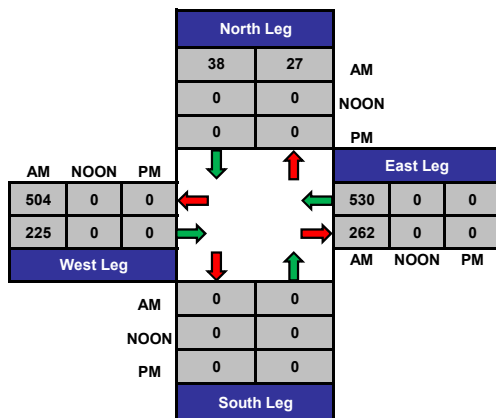
Crest Forest Dr and SR 18, Rimforest

Date: 6/4/2017
Day: Sunday

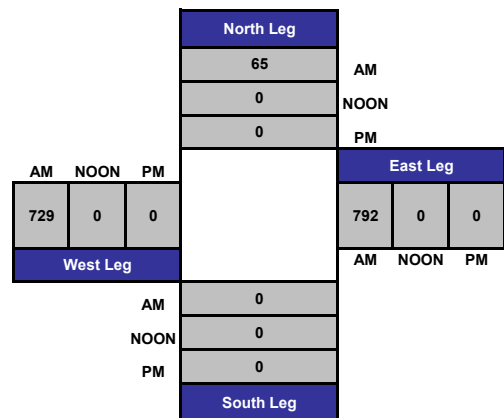
Project #: 17-6089-001
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

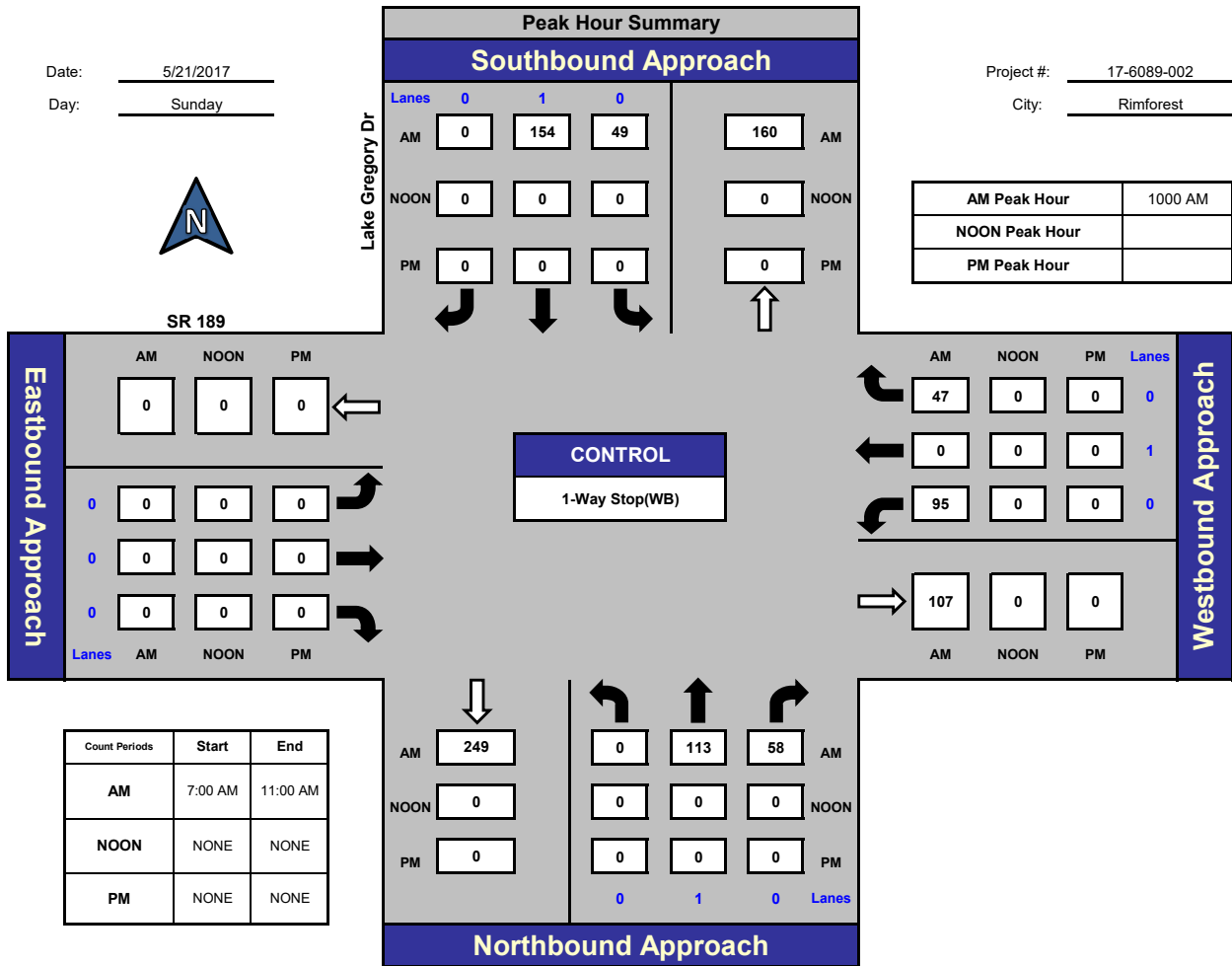


National Data & Surveying Services

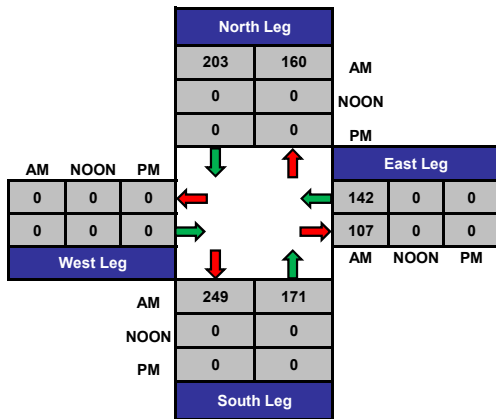
Lake Gregory Dr and SR 189, Rimforest

Date: 5/21/2017
Day: Sunday

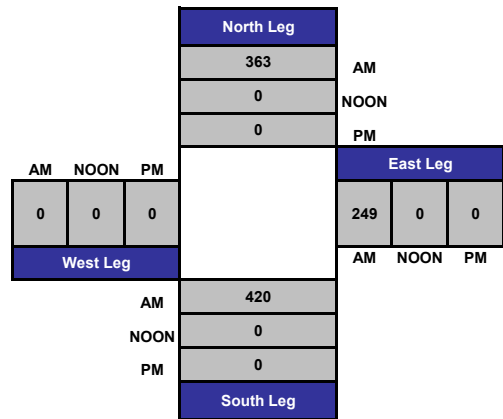
Project #: 17-6089-002
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

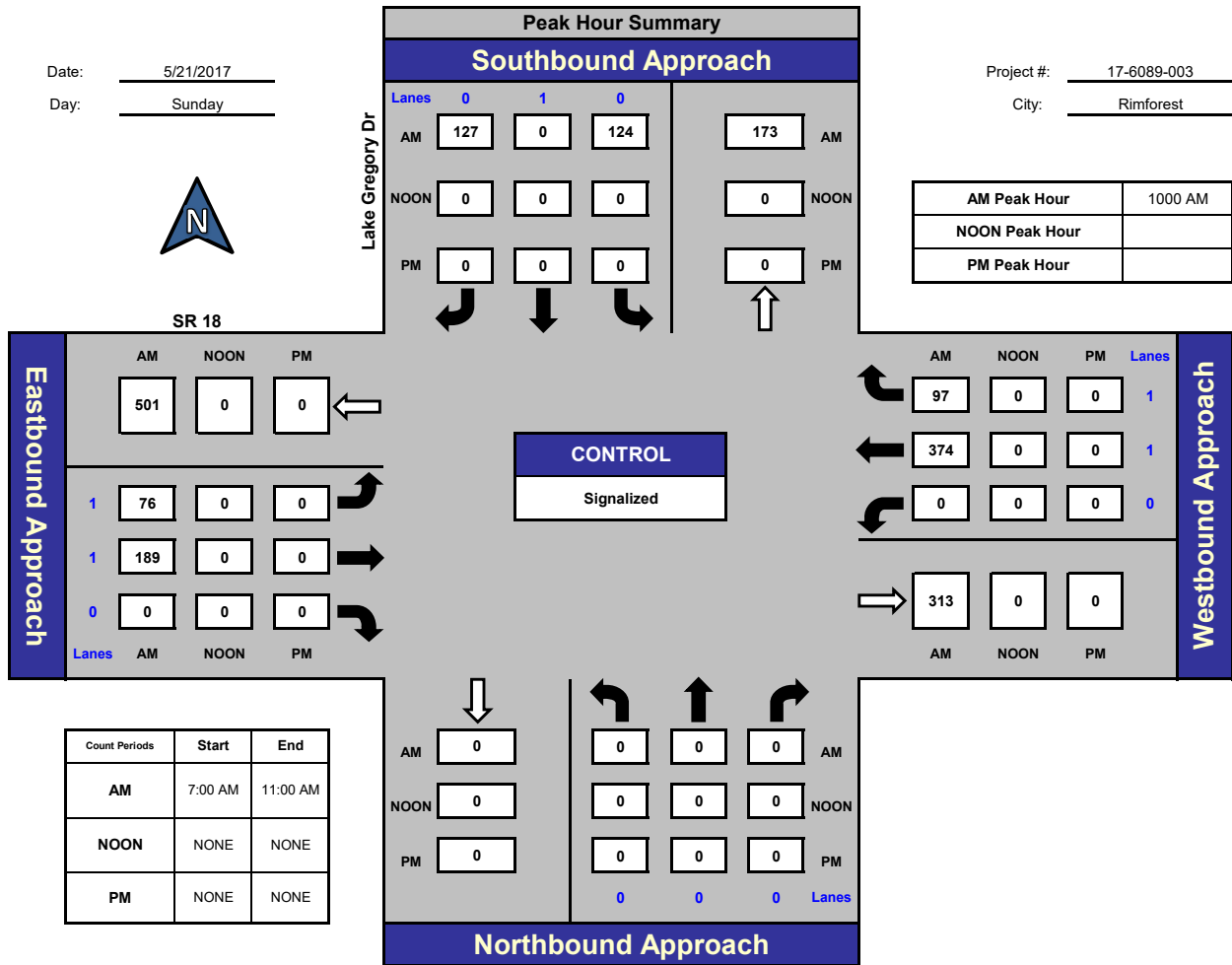


National Data & Surveying Services

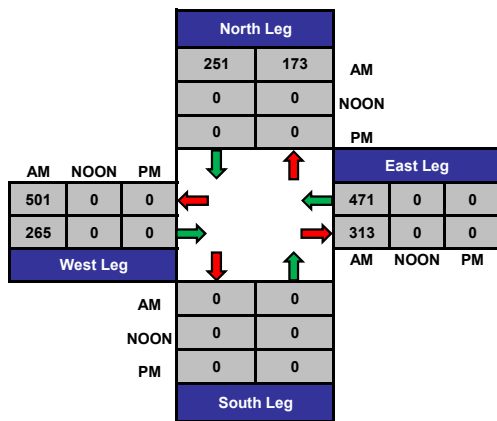
Lake Gregory Dr and SR 18, Rimforest

Date: 5/21/2017
Day: Sunday

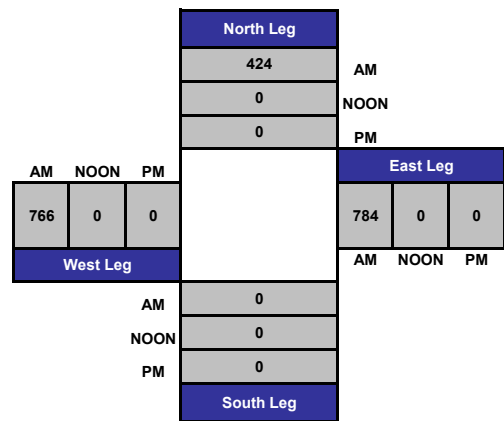
Project #: 17-6089-003
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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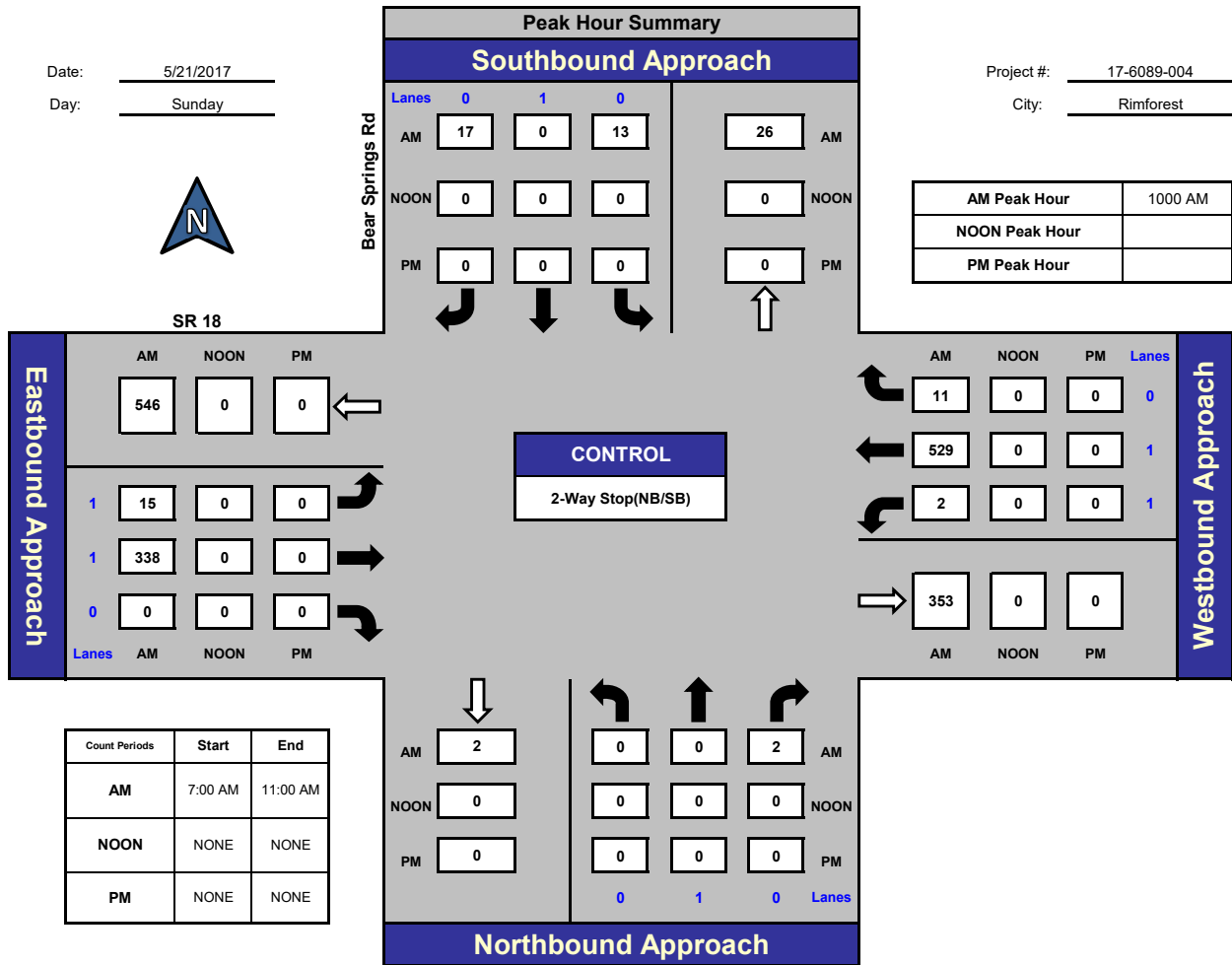


National Data & Surveying Services

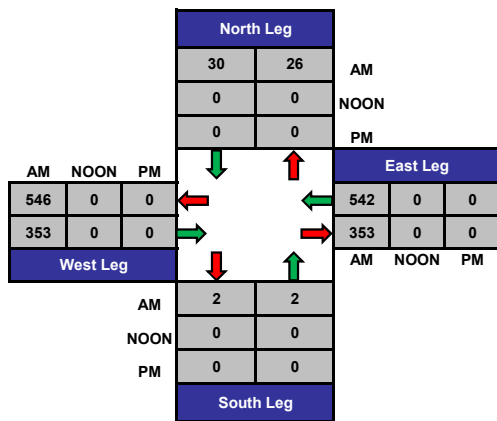
Bear Springs Rd and SR 18, Rimforest

Date: 5/21/2017
Day: Sunday

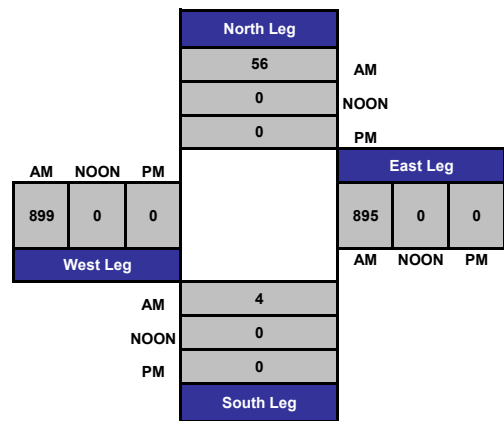
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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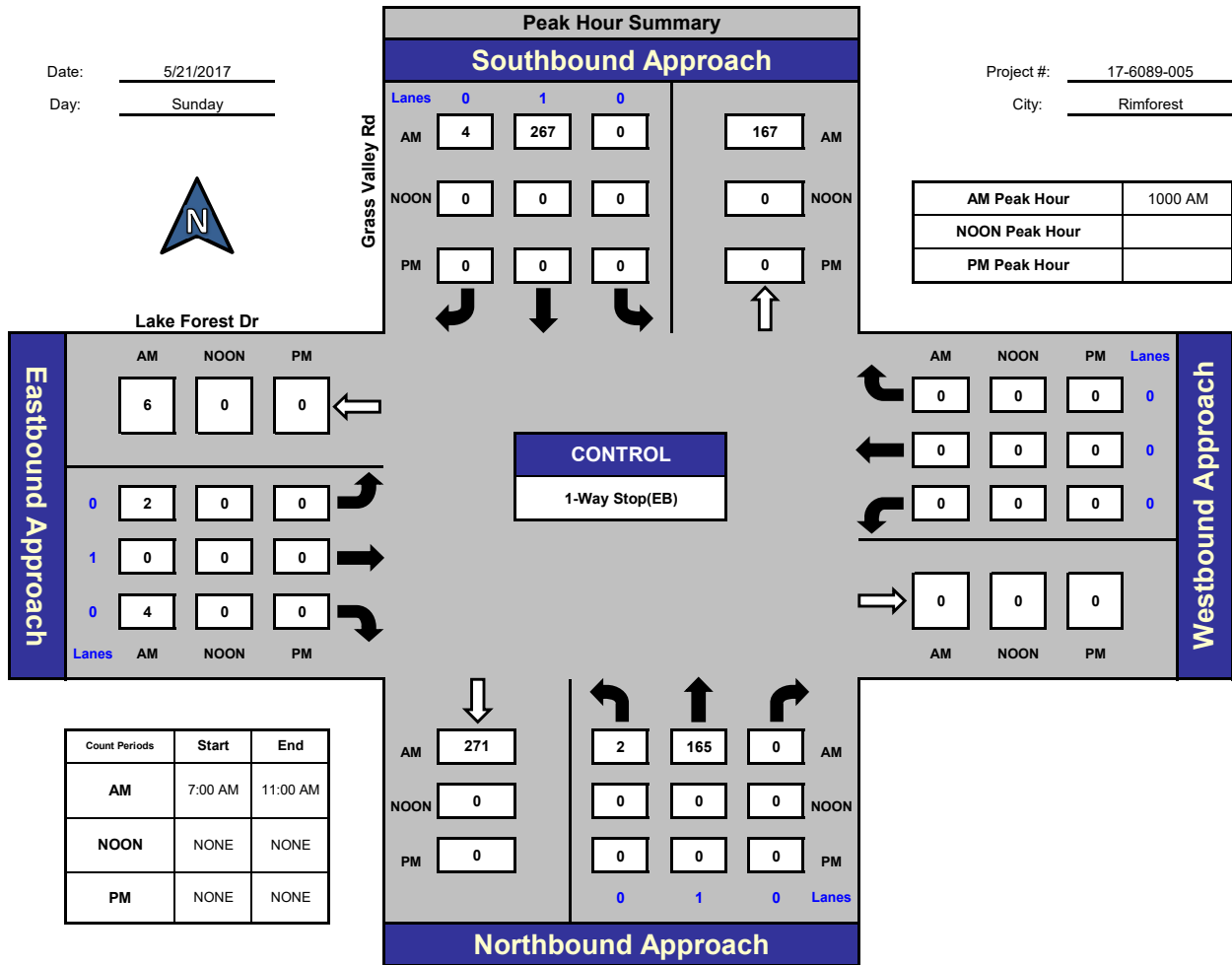


National Data & Surveying Services

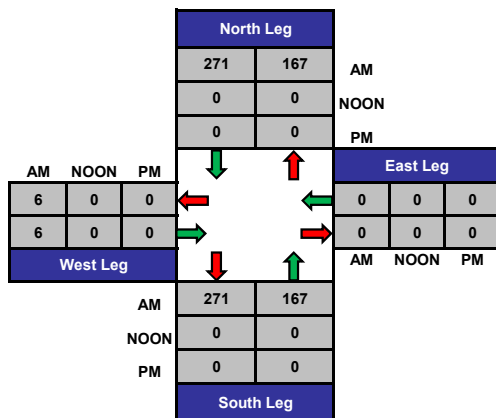
Grass Valley Rd and Lake Forest Dr, Rimforest

Date: 5/21/2017
Day: Sunday

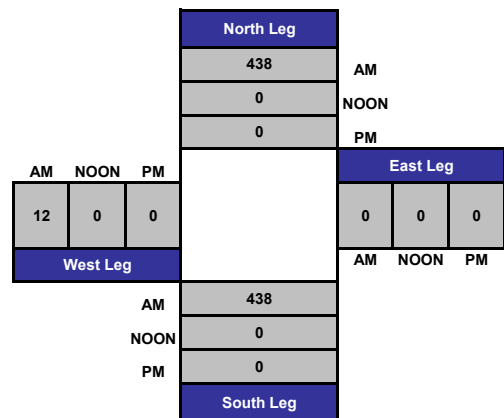
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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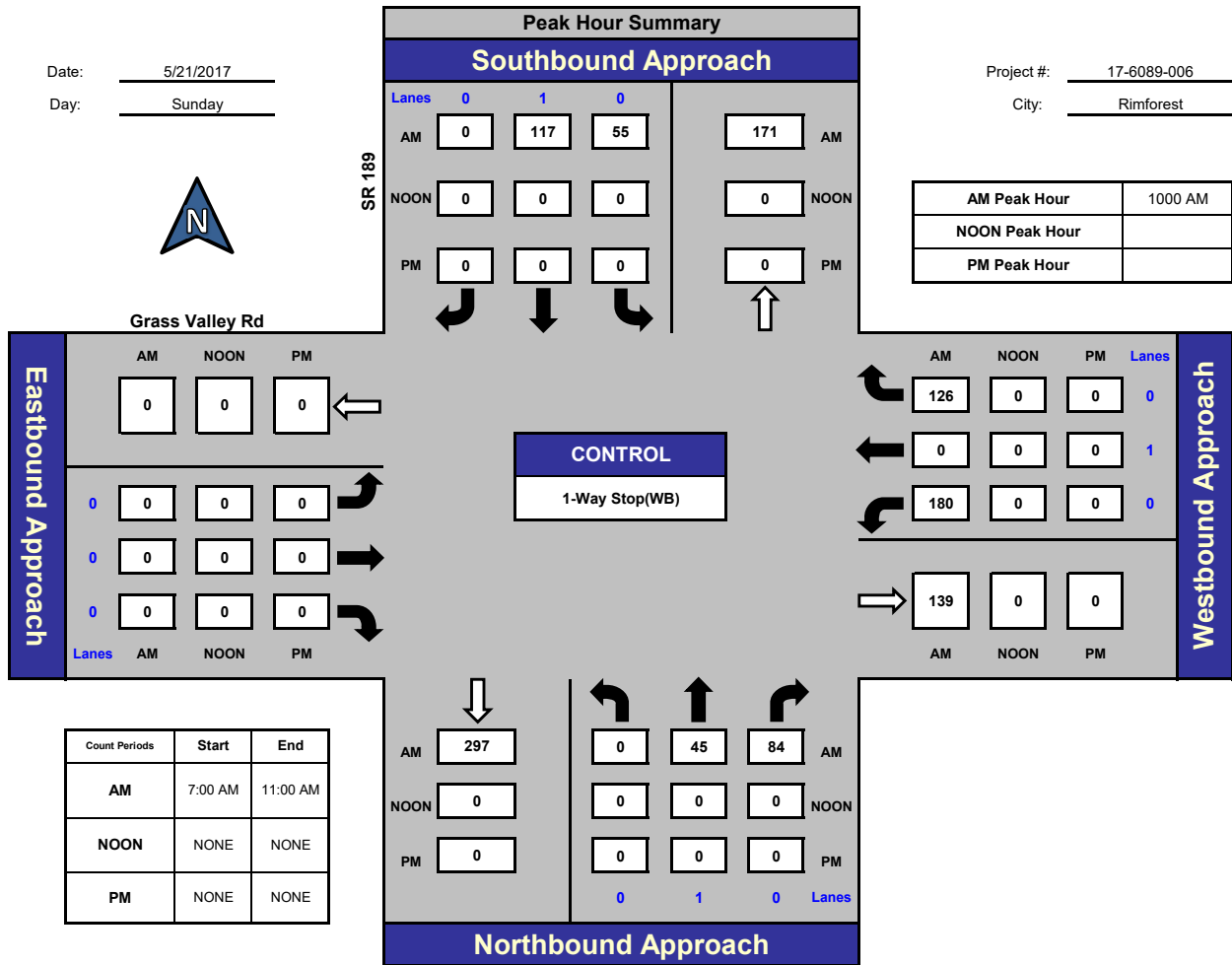


National Data & Surveying Services

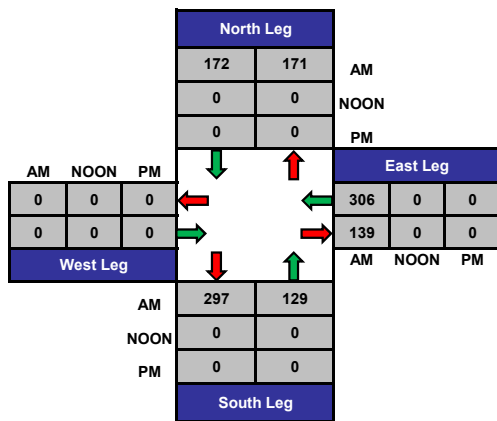
SR 189 and Grass Valley Rd , Rimforest

Date: 5/21/2017
Day: Sunday

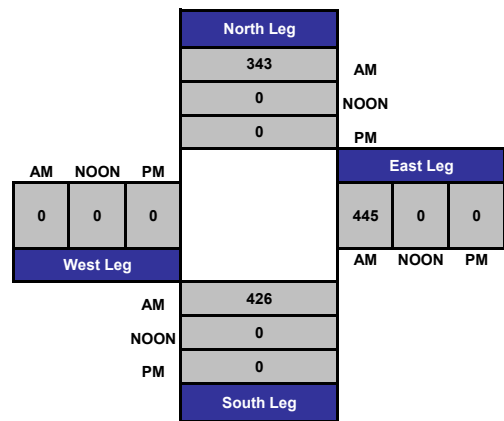
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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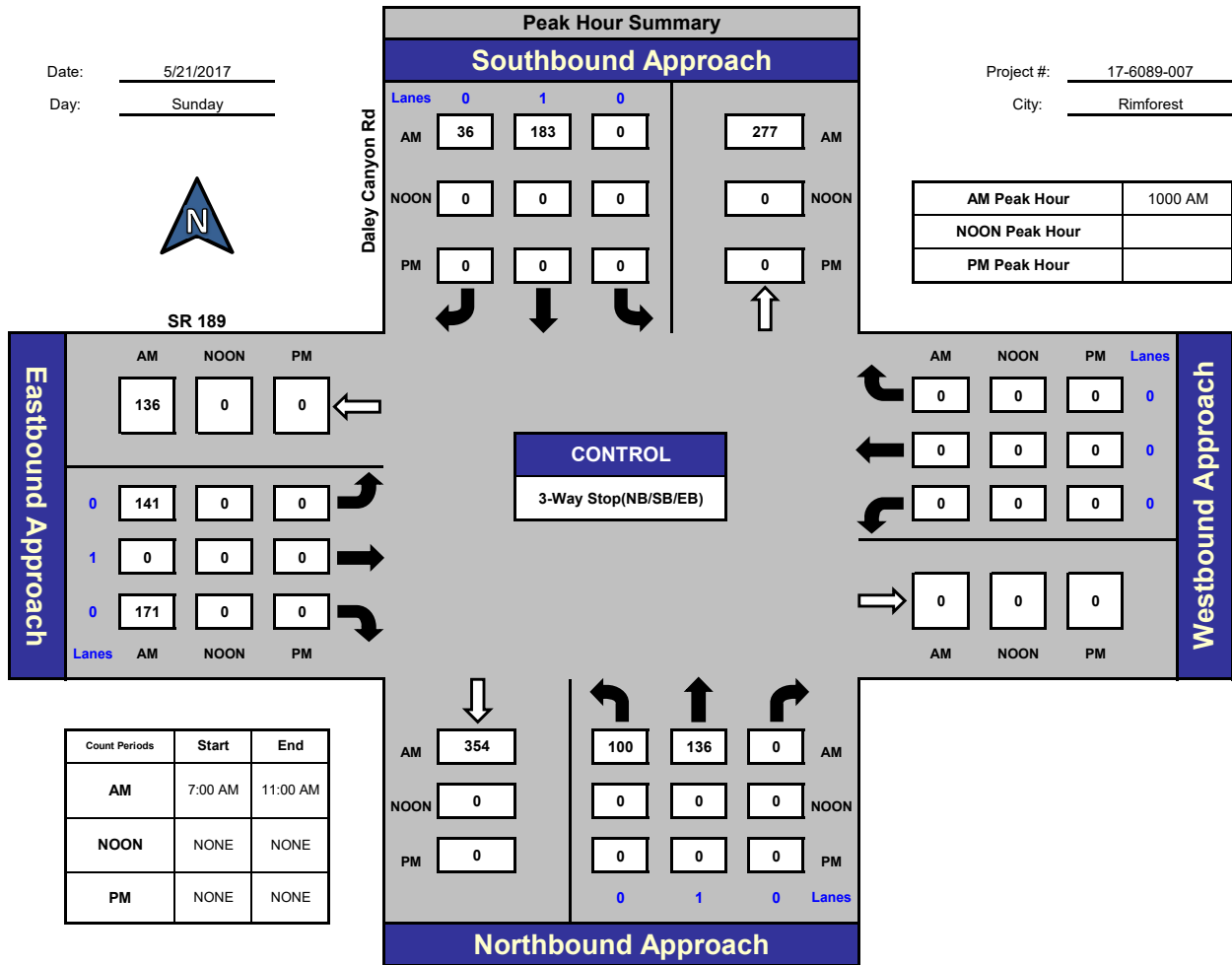


National Data & Surveying Services

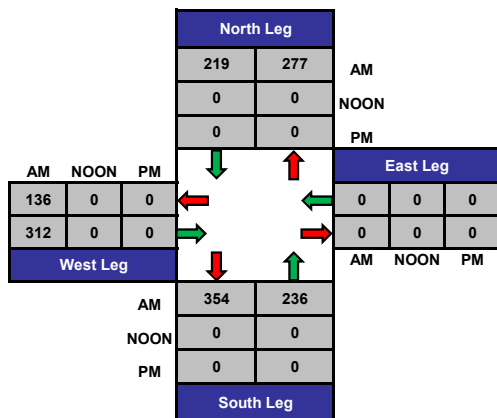
Daley Canyon Rd and SR 189, Rimforest

Date: 5/21/2017
Day: Sunday

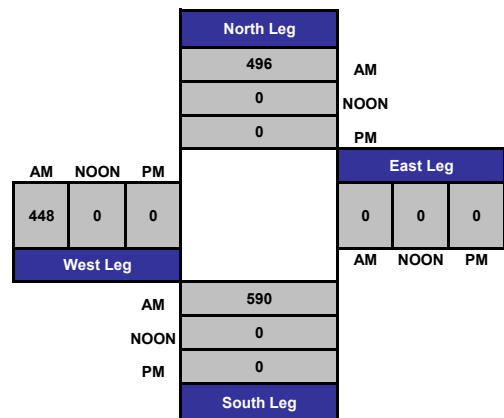
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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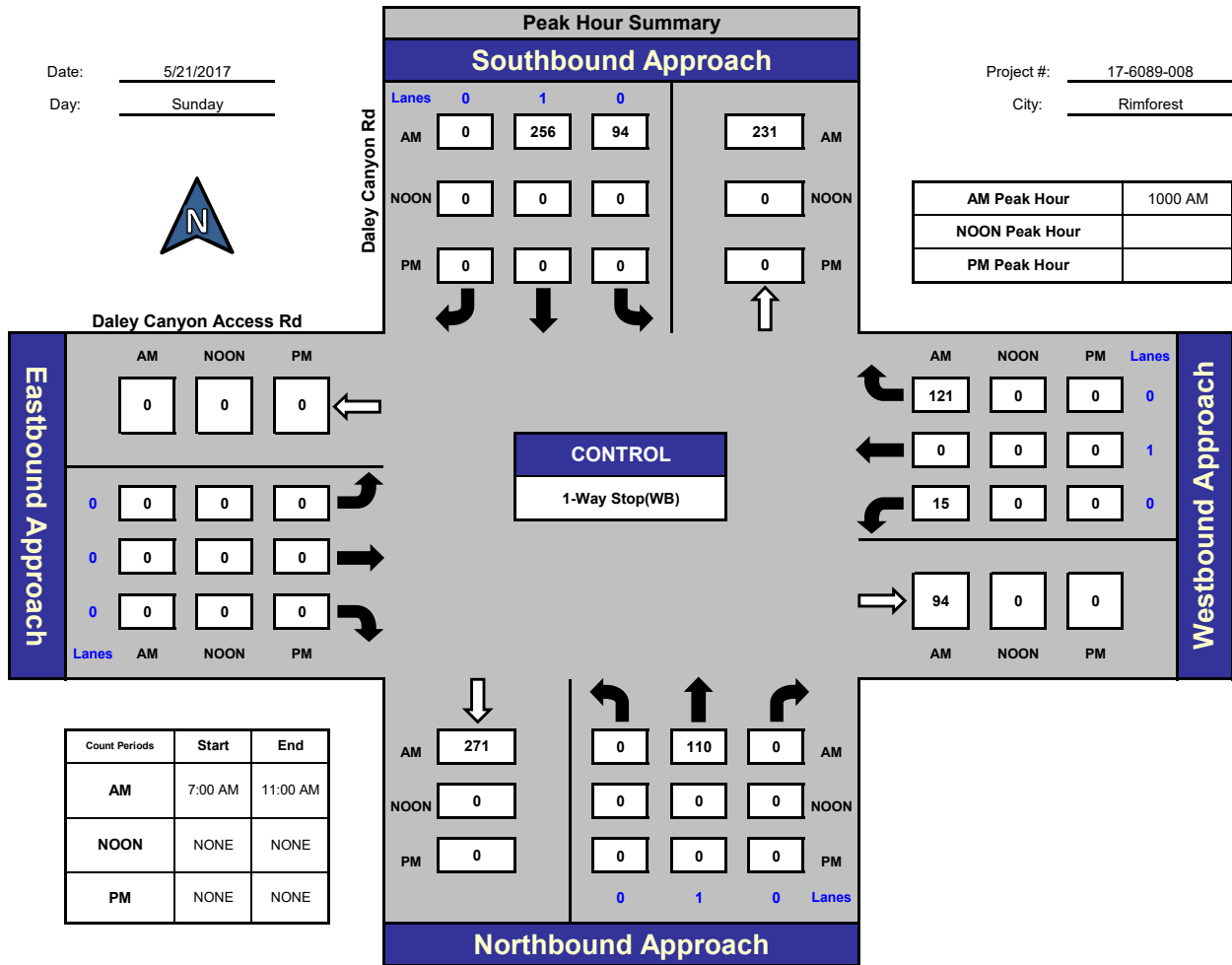


National Data & Surveying Services

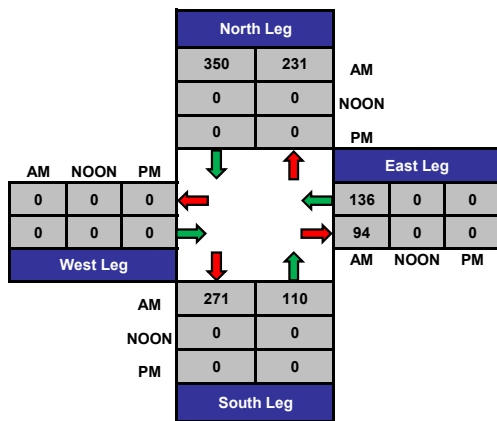
Daley Canyon Rd and Daley Canyon Access Rd, Rimforest

Date: 5/21/2017
Day: Sunday

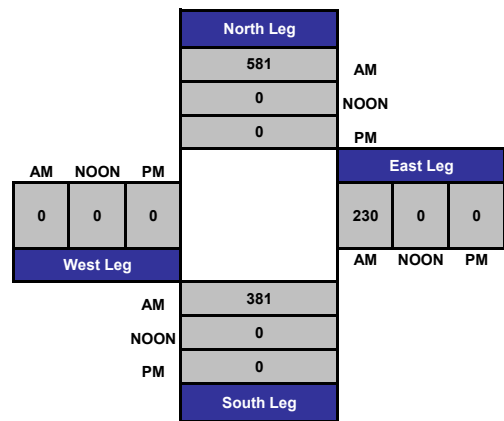
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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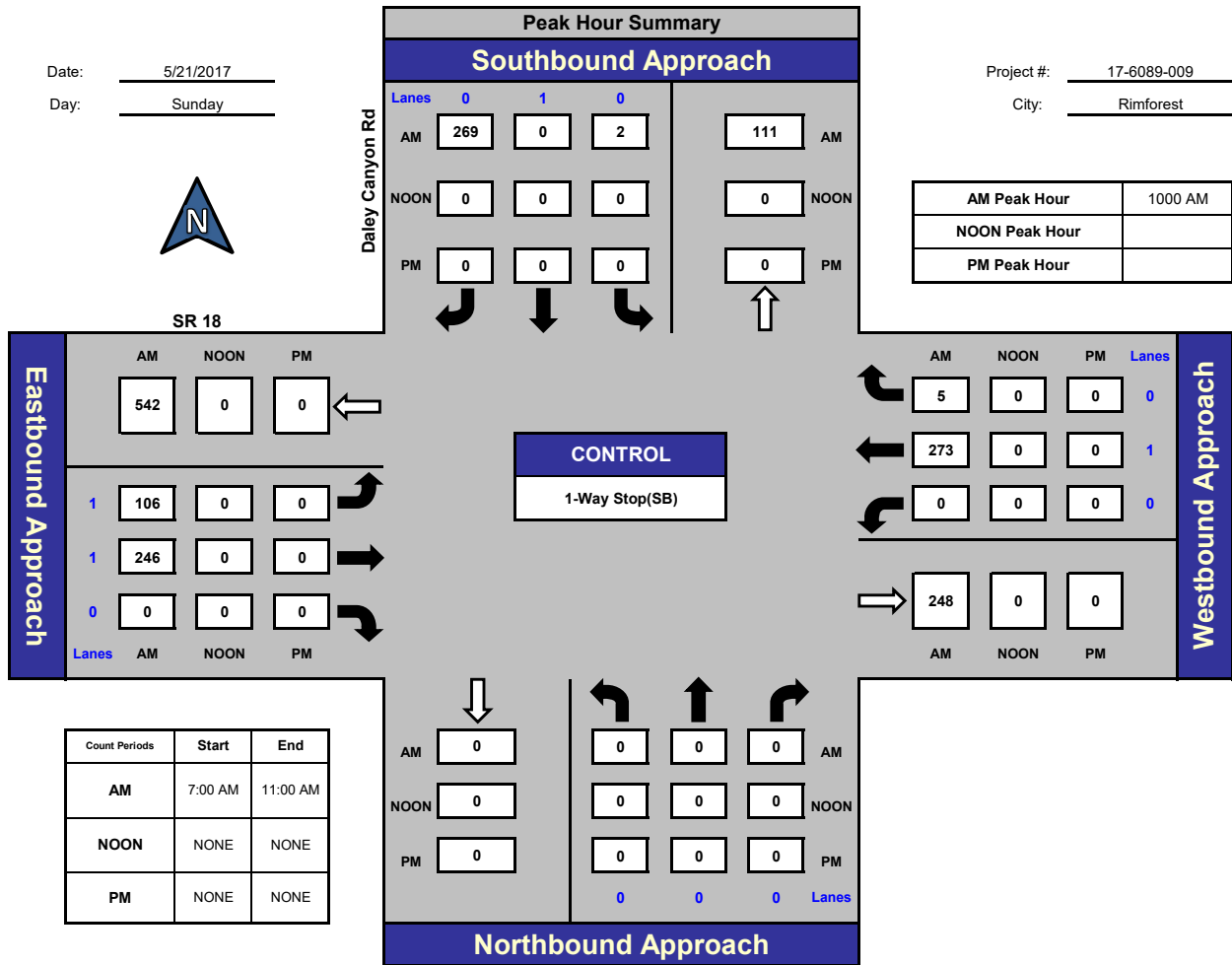


National Data & Surveying Services

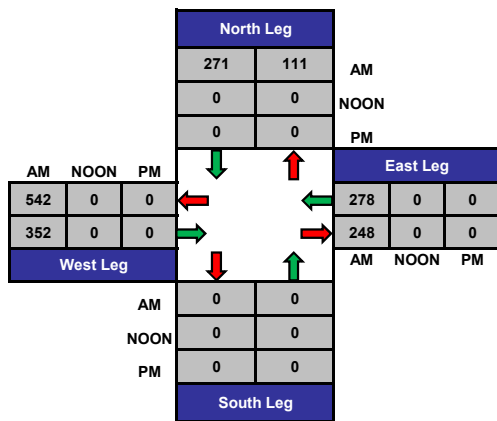
Daley Canyon Rd and SR 18, Rimforest

Date: 5/21/2017
Day: Sunday

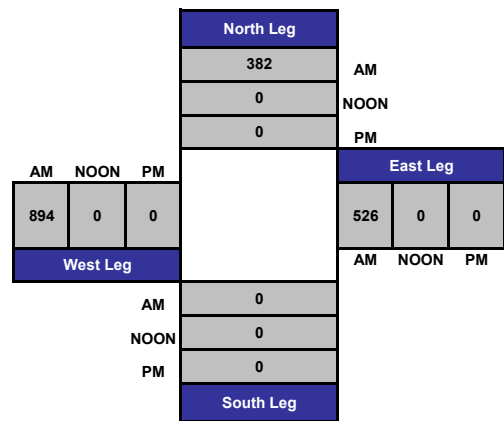
Project #: 17-6089-009
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



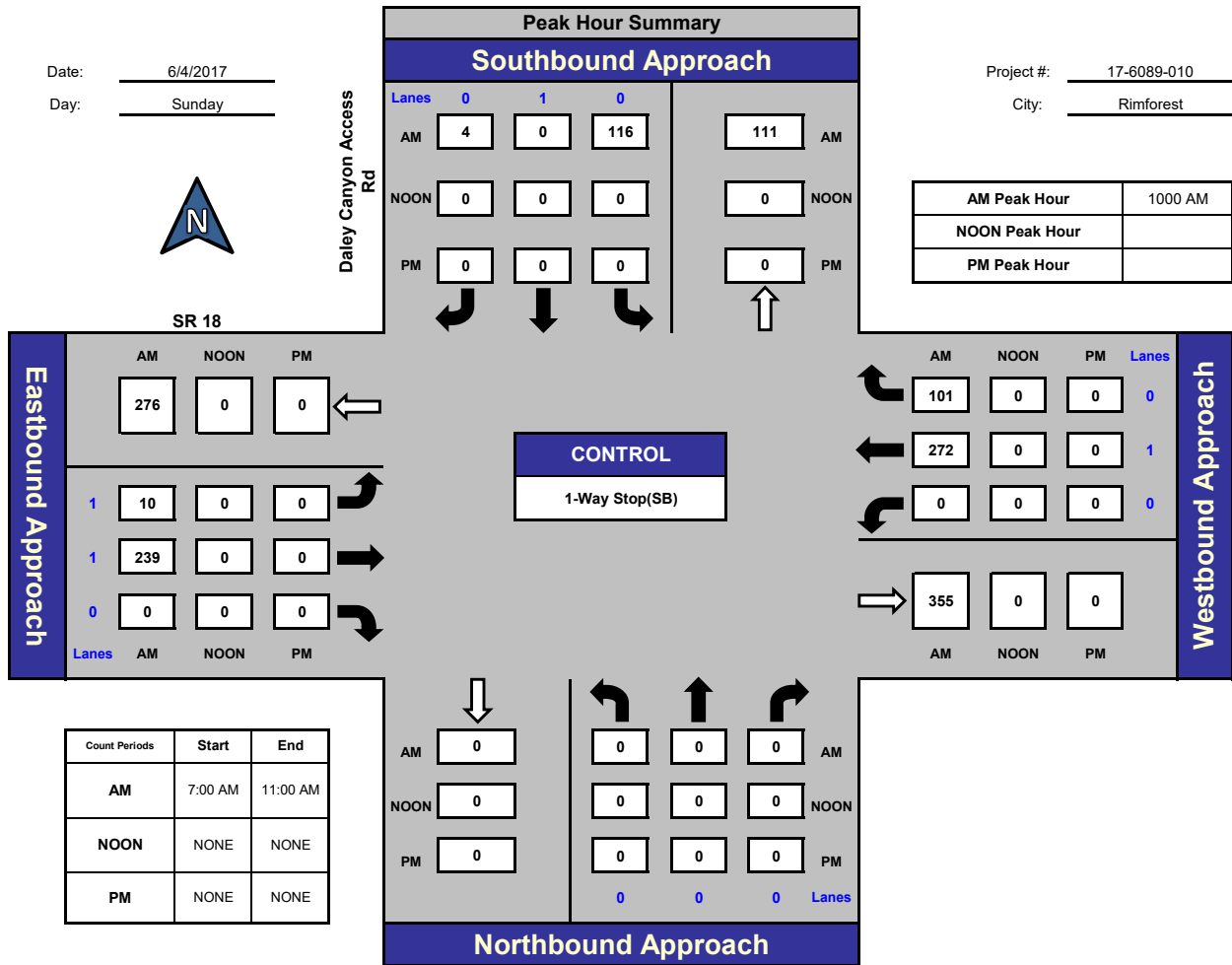
National Data & Surveying Services

Daley Canyon Access Rd and SR 18, Rimforest

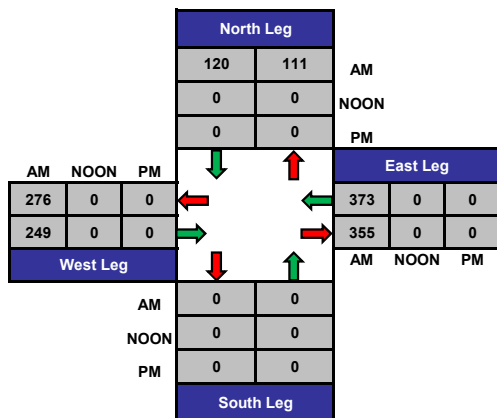
Date: 6/4/2017
Day: Sunday



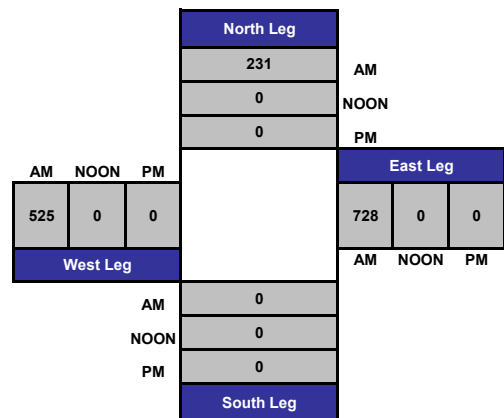
Project #: 17-6089-010
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

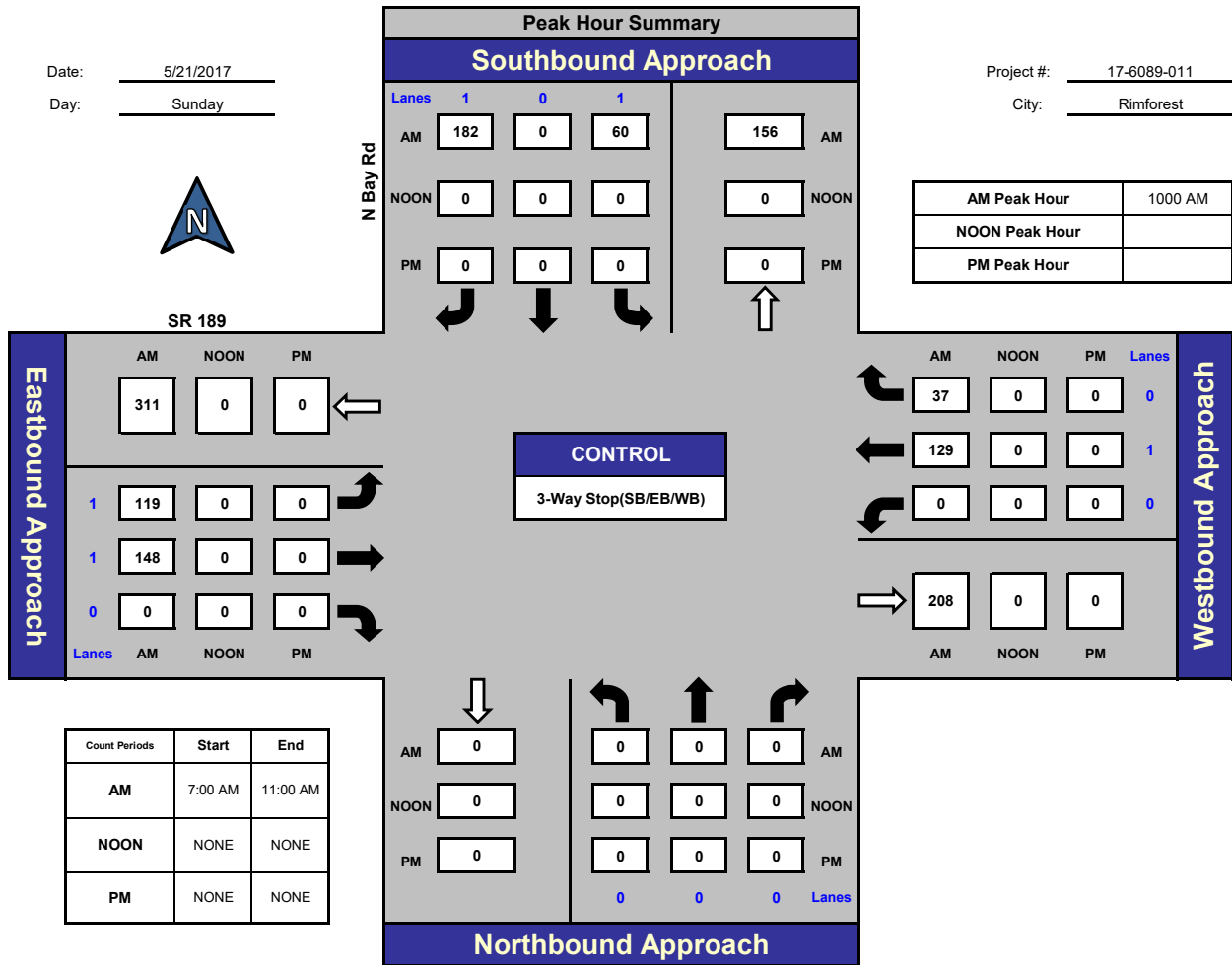


National Data & Surveying Services

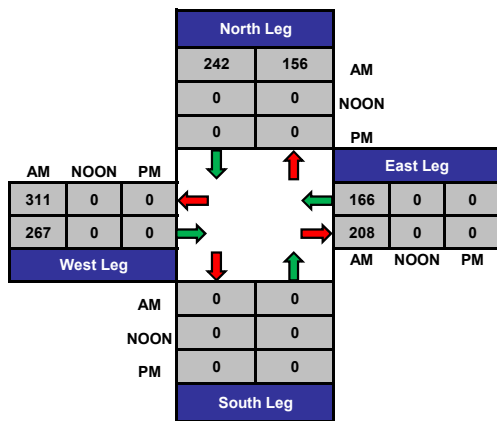
N Bay Rd and SR 189, Rimforest

Date: 5/21/2017
Day: Sunday

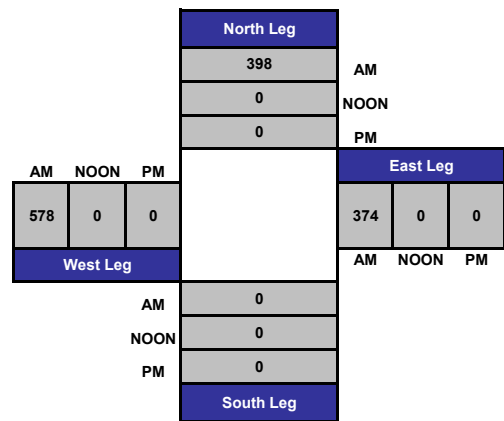
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City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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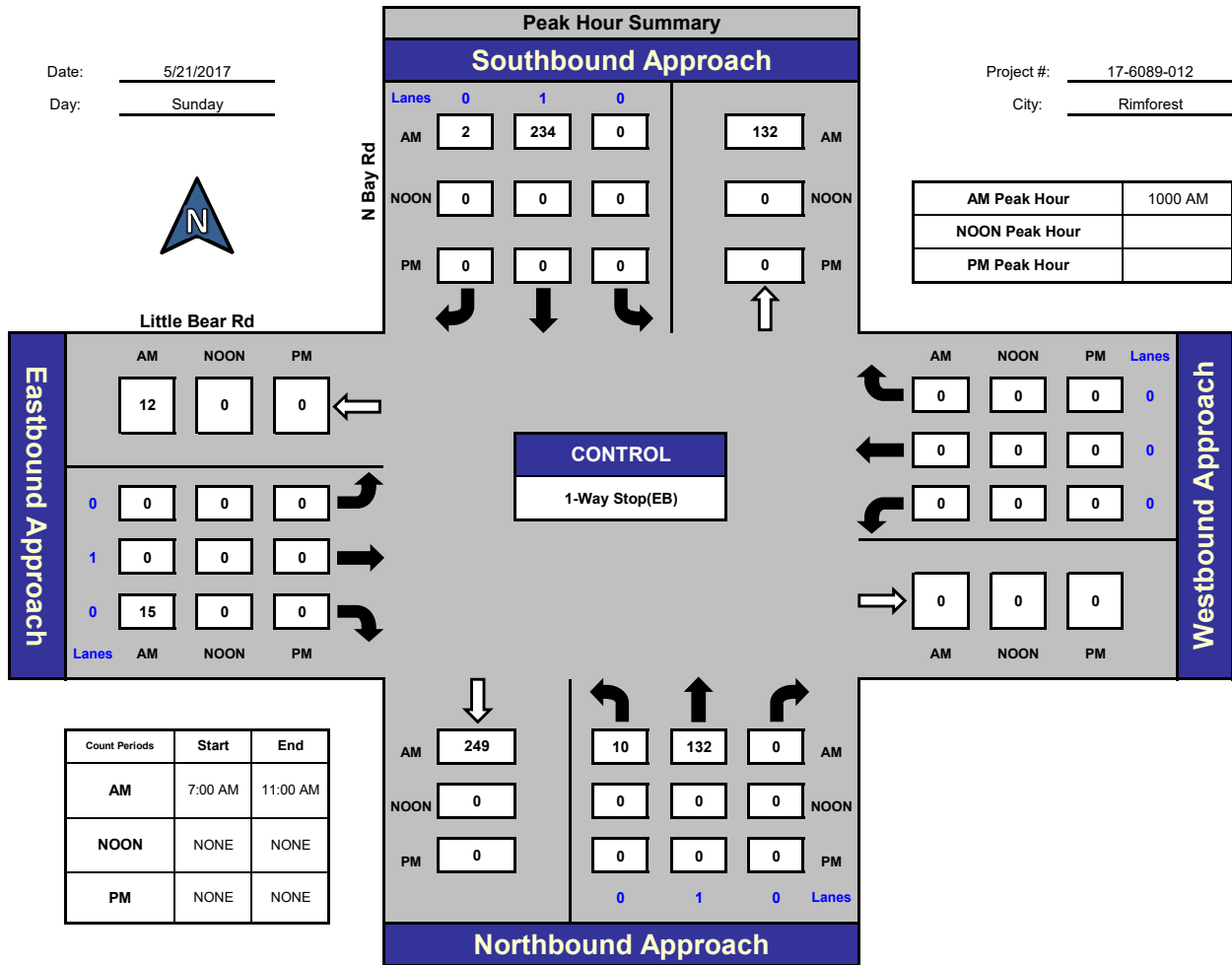


National Data & Surveying Services

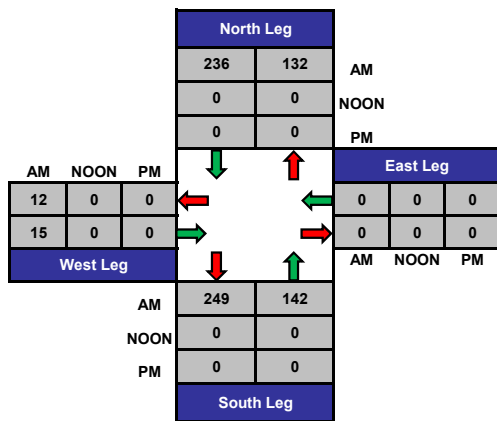
N Bay Rd and Little Bear Rd, Rimforest

Date: 5/21/2017
Day: Sunday

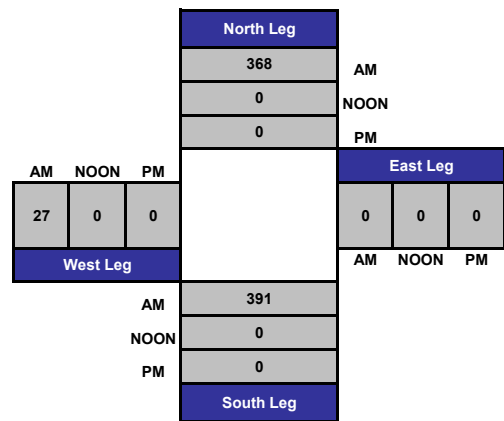
Project #: 17-6089-012
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

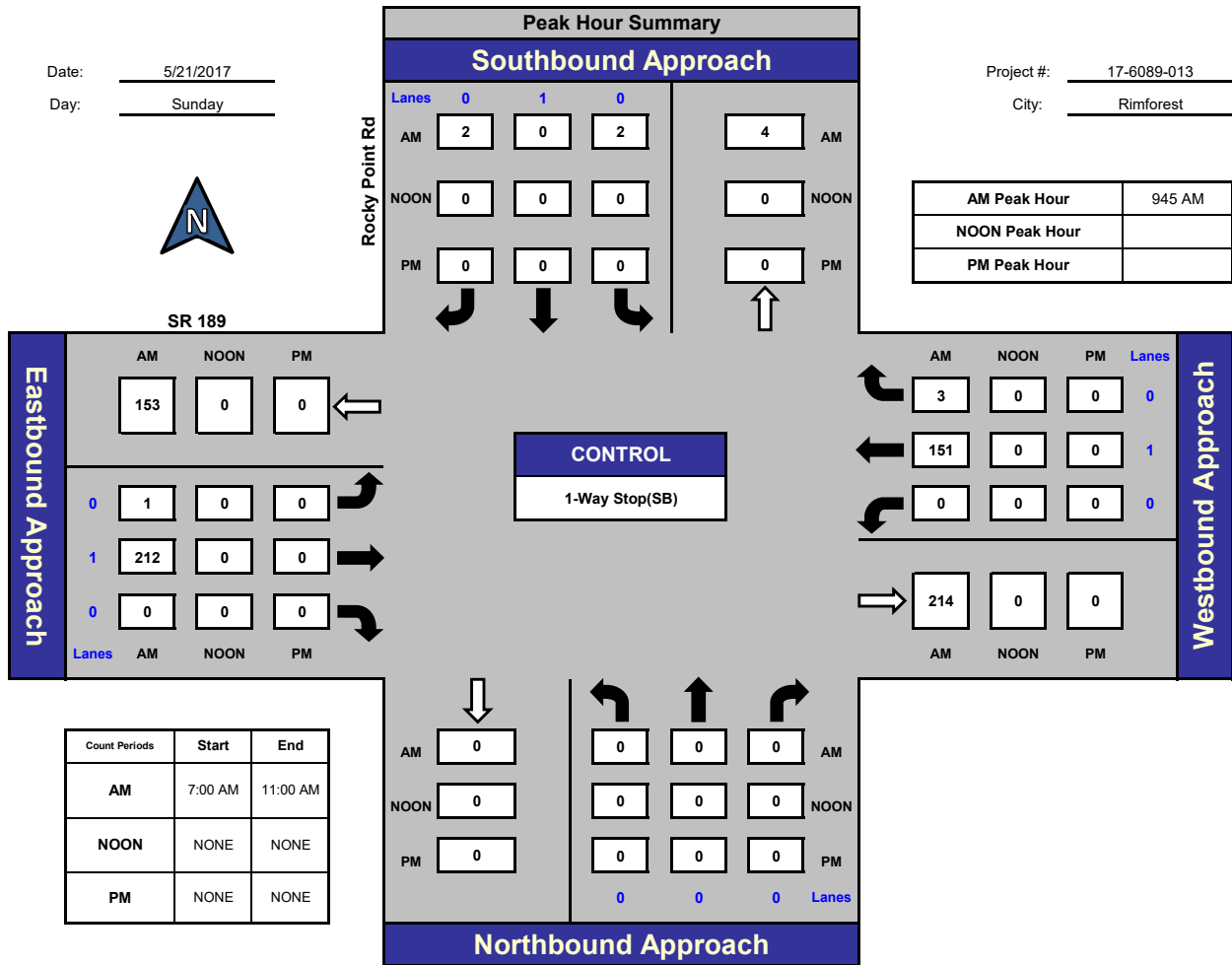


National Data & Surveying Services

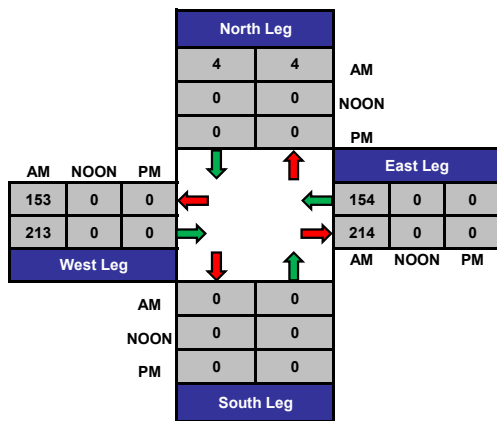
Rocky Point Rd and SR 189, Rimforest

Date: 5/21/2017
Day: Sunday

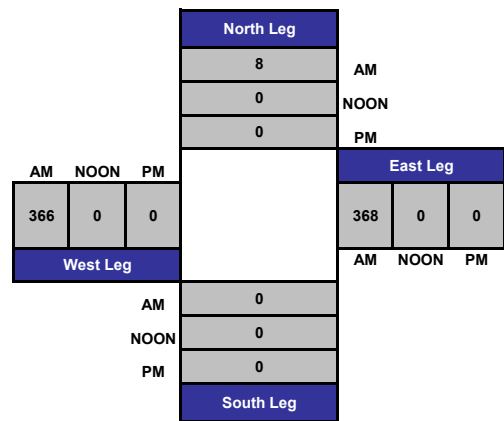
Project #: 17-6089-013
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

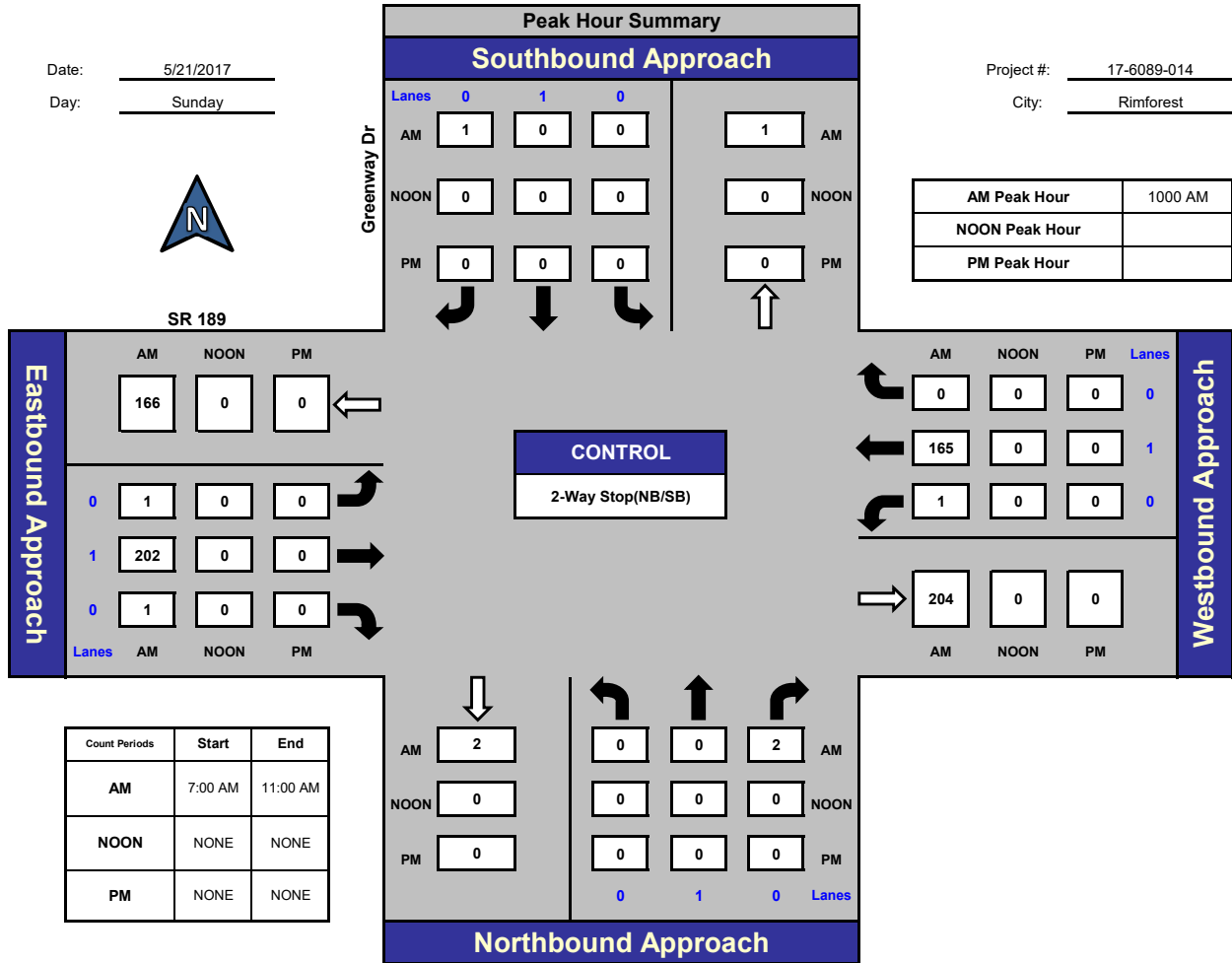
Greenway Dr and SR 189, Rimforest

Date: 5/21/2017

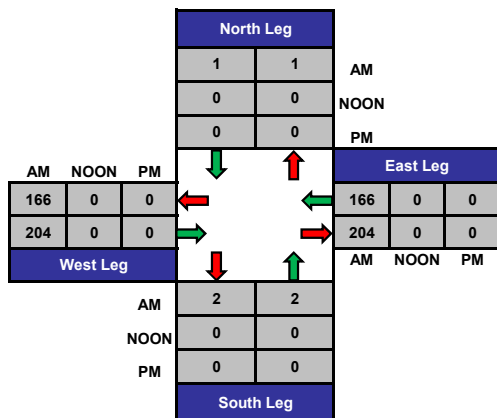
Day: Sunday

Project #: 17-6089-014

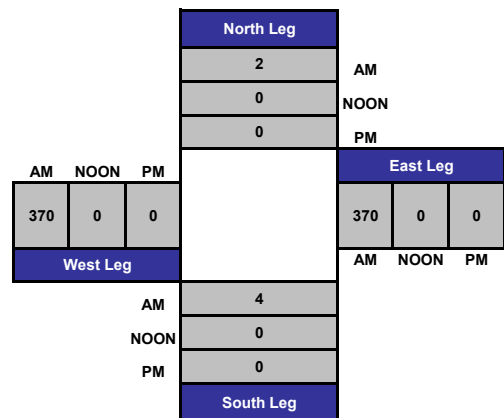
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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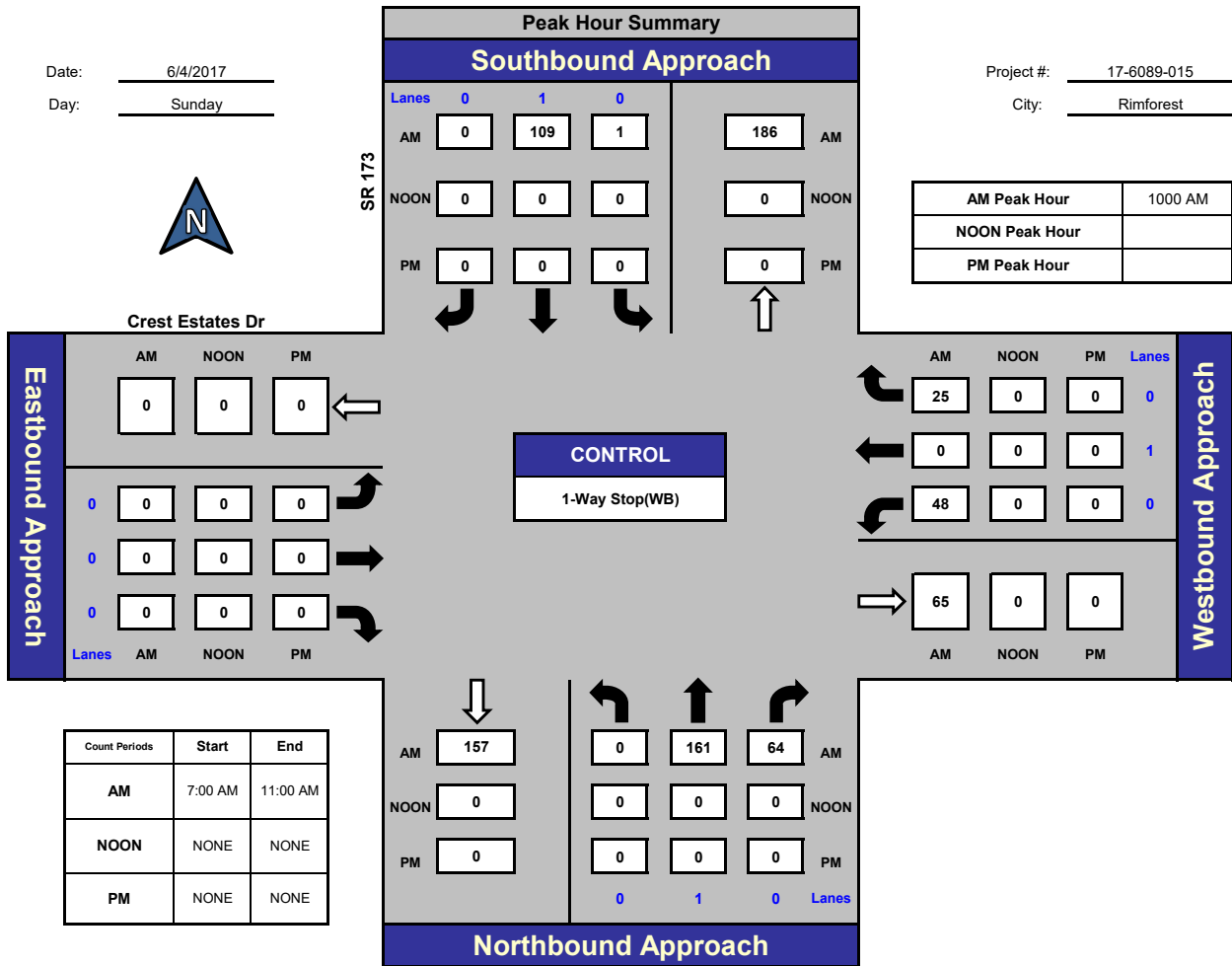


National Data & Surveying Services

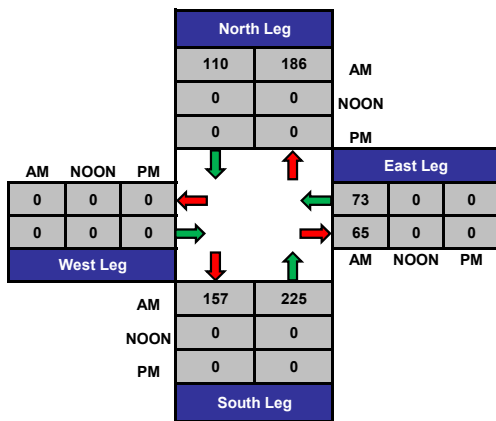
SR 173 and Crest Estates Dr , Rimforest

Date: 6/4/2017
Day: Sunday

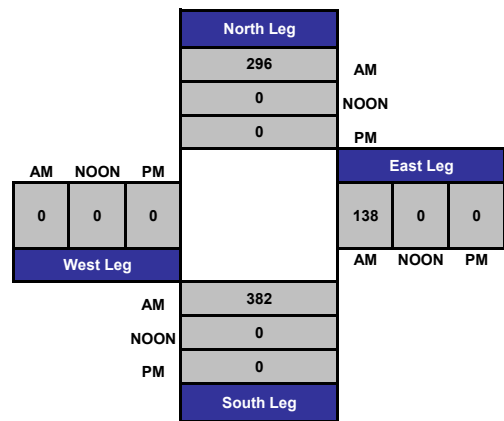
Project #: 17-6089-015
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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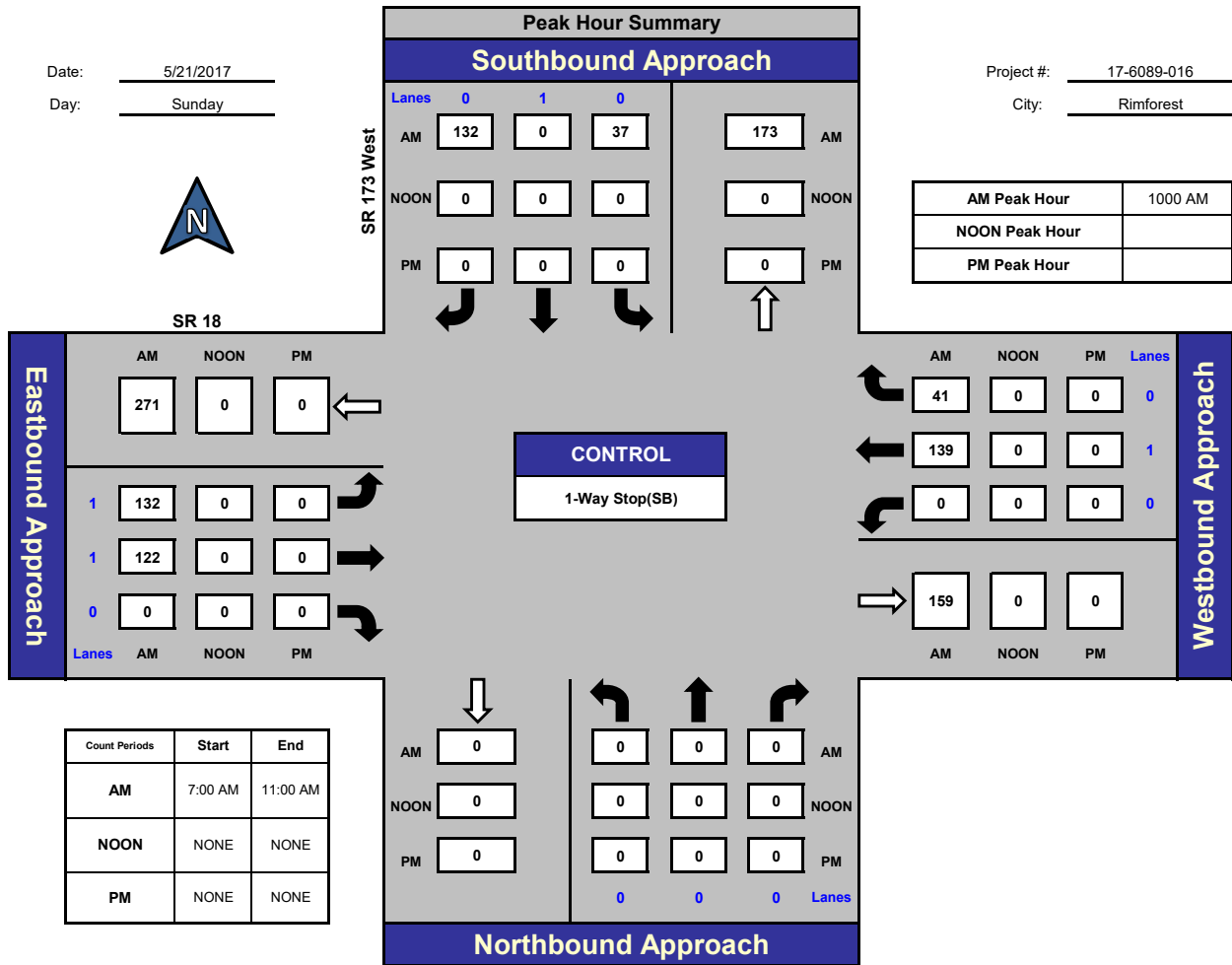


National Data & Surveying Services

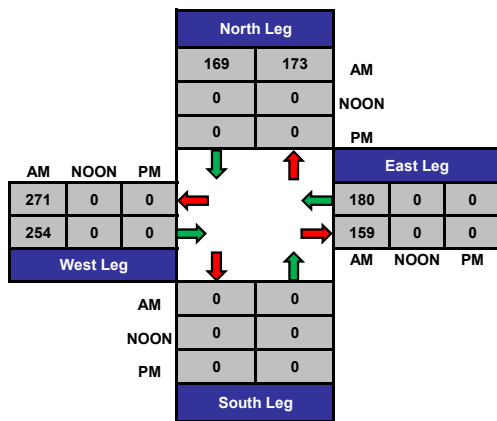
SR 173 West and SR 18, Rimforest

Date: 5/21/2017
Day: Sunday

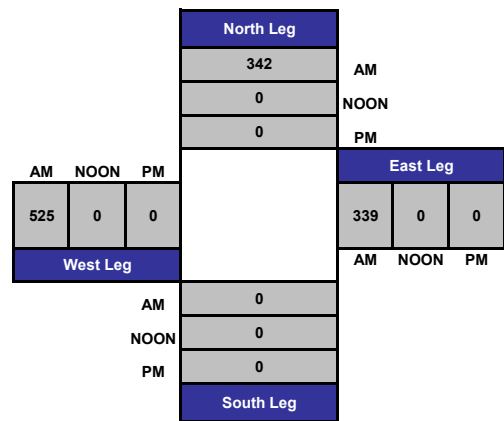
Project #: 17-6089-016
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

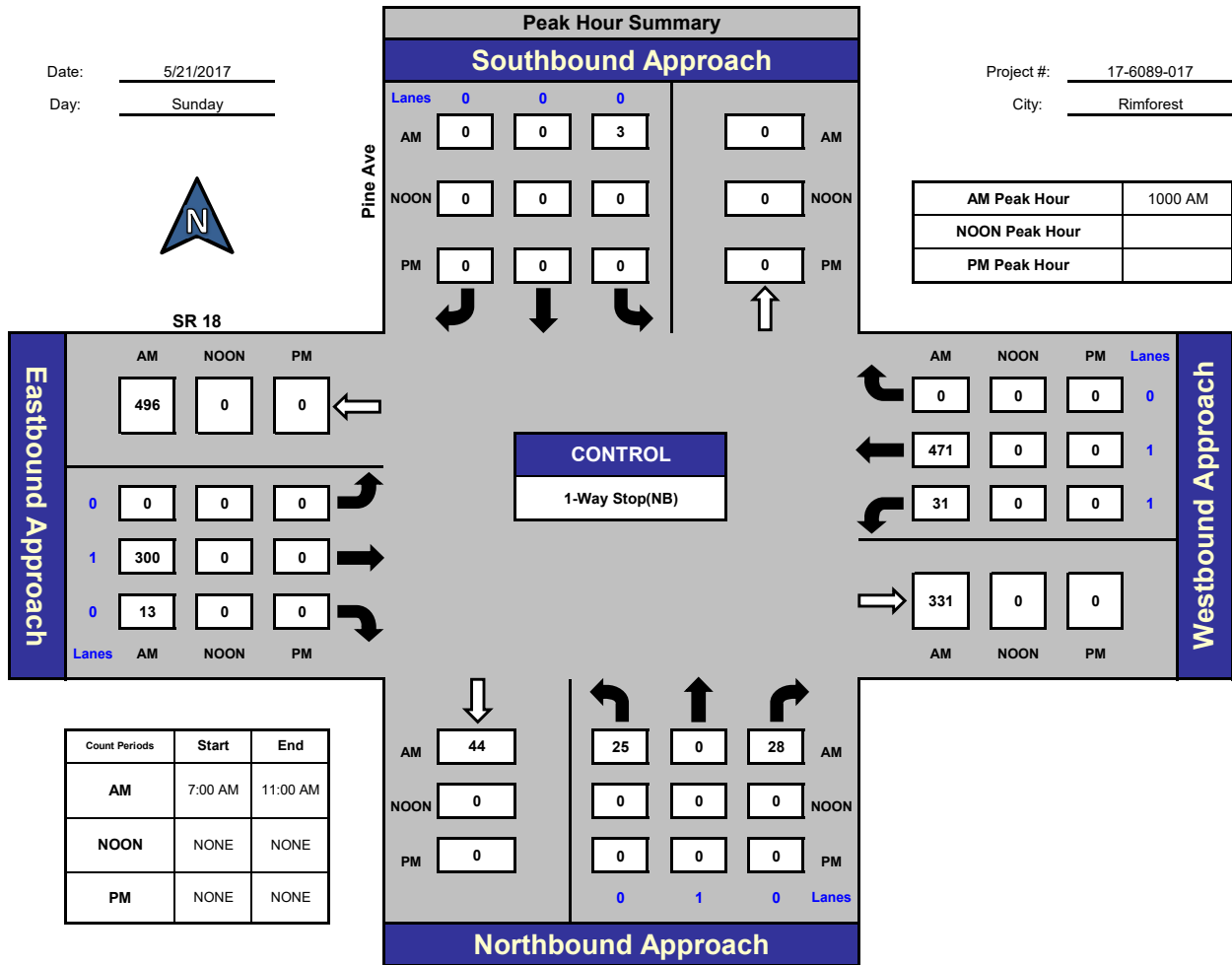


National Data & Surveying Services

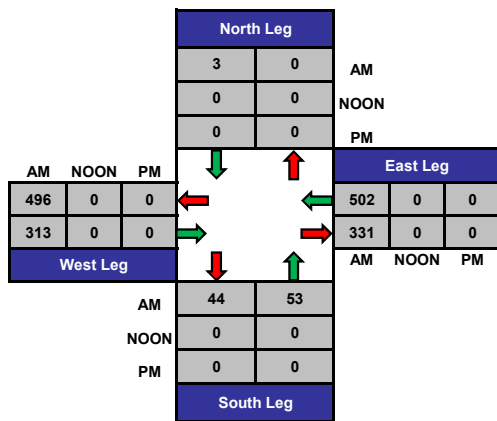
Pine Ave and SR 18, Rimforest

Date: 5/21/2017
Day: Sunday

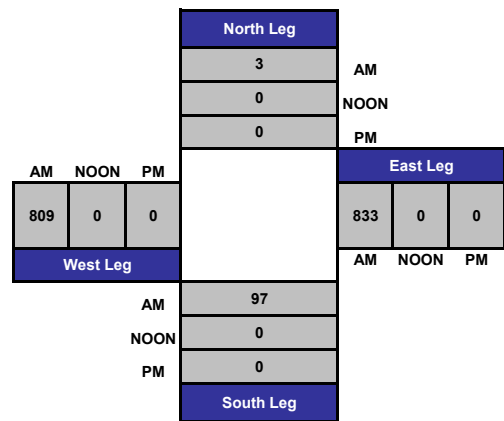
Project #: 17-6089-017
City: Rimforest



Total Ins & Outs



Total Volume Per Leg



APPENDIX B: VOLUME DEVELOPMENT WORKSHEETS

Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)

Saturday Peak Hour						Sunday Peak Hour						
Pass. Veh.	Trucks				Total PCE Volume	Pass. Veh.	Trucks				Total PCE Volume	
	2 Axle	3 Axle	4 Axle	PCE	2 Axle		3 Axle	4 Axle	PCE			

**Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
3 . Lake Gregory Drive/State Route 18												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	203	1	0	0	2	205	123	1	0	0	2	125
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	93	0	0	0	0	93	126	1	0	0	2	128
EBL	79	1	0	0	2	81	75	1	0	0	2	77
EBT	300	5	0	0	8	308	187	2	0	0	3	190
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	253	2	0	0	3	256	368	5	0	0	8	376
WBR	139	2	0	0	3	142	97	0	0	0	0	97
North Leg												
Approach	296	1	0	0	2	298	249	2	0	0	4	253
Departure	218	3	0	0	5	223	172	1	0	0	2	174
Total	514	4	0	0	7	521	421	3	0	0	6	427
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	392	4	0	0	6	398	465	5	0	0	8	473
Departure	503	6	0	0	10	513	310	3	0	0	5	315
Total	895	10	0	0	16	911	775	8	0	0	13	788
West Leg												
Approach	379	6	0	0	10	389	262	3	0	0	5	267
Departure	346	2	0	0	3	349	494	6	0	0	10	504
Total	725	8	0	0	13	738	756	9	0	0	15	771
Total Approaches												
Approach	1,067	11	0	0	18	1,085	976	10	0	0	17	993
Departure	1,067	11	0	0	18	1,085	976	10	0	0	17	993
Total	2,134	22	0	0	36	2,170	1,952	20	0	0	34	1,986

**Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
4 . Bear Springs Road/State Route 18												
NBL	3	0	0	0	0	3	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	1	0	0	0	0	1	2	0	0	0	0	2
SBL	17	1	0	0	2	19	13	0	0	0	0	13
SBT	1	0	0	0	0	1	0	0	0	0	0	0
SBR	42	0	0	0	0	42	17	0	0	0	0	17
EBL	30	1	0	0	2	32	15	0	0	0	0	15
EBT	630	3	2	0	9	639	335	3	0	0	5	340
EBR	2	0	0	0	0	2	0	0	0	0	0	0
WBL	5	0	0	0	0	5	2	0	0	0	0	2
WBT	454	4	1	0	8	462	524	4	1	0	8	532
WBR	20	0	0	0	0	20	11	0	0	0	0	11
North Leg												
Approach	60	1	0	0	2	62	30	0	0	0	0	30
Departure	50	1	0	0	2	52	26	0	0	0	0	26
Total	110	2	0	0	4	114	56	0	0	0	0	56
South Leg												
Approach	4	0	0	0	0	4	2	0	0	0	0	2
Departure	8	0	0	0	0	8	2	0	0	0	0	2
Total	12	0	0	0	0	12	4	0	0	0	0	4
East Leg												
Approach	479	4	1	0	8	487	537	4	1	0	8	545
Departure	648	4	2	0	11	659	350	3	0	0	5	355
Total	1,127	8	3	0	19	1,146	887	7	1	0	13	900
West Leg												
Approach	662	4	2	0	11	673	350	3	0	0	5	355
Departure	499	4	1	0	8	507	541	4	1	0	8	549
Total	1,161	8	3	0	19	1,180	891	7	1	0	13	904
Total Approaches												
Approach	1,205	9	3	0	21	1,226	919	7	1	0	13	932
Departure	1,205	9	3	0	21	1,226	919	7	1	0	13	932
Total	2,410	18	6	0	42	2,452	1,838	14	2	0	26	1,864

**Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
7 . State Route 189/Grass Valley Road												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	65	1	0	0	2	67	45	0	0	0	0	45
NBR	127	1	0	0	2	129	84	0	0	0	0	84
SBL	64	0	0	0	0	64	55	0	0	0	0	55
SBT	131	1	0	0	2	133	117	0	0	0	0	117
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	181	1	0	0	2	183	179	1	0	0	2	181
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	126	0	0	0	0	126	126	0	0	0	0	126
North Leg												
Approach	195	1	0	0	2	197	172	0	0	0	0	172
Departure	191	1	0	0	2	193	171	0	0	0	0	171
Total	386	2	0	0	4	390	343	0	0	0	0	343
South Leg												
Approach	192	2	0	0	4	196	129	0	0	0	0	129
Departure	312	2	0	0	4	316	296	1	0	0	2	298
Total	504	4	0	0	8	512	425	1	0	0	2	427
East Leg												
Approach	307	1	0	0	2	309	305	1	0	0	2	307
Departure	191	1	0	0	2	193	139	0	0	0	0	139
Total	498	2	0	0	4	502	444	1	0	0	2	446
West Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches												
Approach	694	4	0	0	8	702	606	1	0	0	2	608
Departure	694	4	0	0	8	702	606	1	0	0	2	608
Total	1,388	8	0	0	16	1,404	1,212	2	0	0	4	1,216

**Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
10 . Daley Canyon Road/State Route 18												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	4	0	0	0	4	2	0	0	0	0	0	2
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	223	3	0	0	5	228	267	2	0	0	3	270
EBL	266	1	0	0	2	268	106	0	0	0	0	106
EBT	384	3	1	0	7	391	243	3	0	0	5	248
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	259	1	1	0	4	263	270	2	1	0	5	275
WBR	1	0	0	0	0	1	5	0	0	0	0	5
North Leg												
Approach	227	3	0	0	5	232	269	2	0	0	3	272
Departure	267	1	0	0	2	269	111	0	0	0	0	111
Total	494	4	0	0	7	501	380	2	0	0	3	383
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	260	1	1	0	4	264	275	2	1	0	5	280
Departure	388	3	1	0	7	395	245	3	0	0	5	250
Total	648	4	2	0	11	659	520	5	1	0	10	530
West Leg												
Approach	650	4	1	0	9	659	349	3	0	0	5	354
Departure	482	4	1	0	9	491	537	4	1	0	8	545
Total	1,132	8	2	0	18	1,150	886	7	1	0	13	899
Total Approaches												
Approach	1,137	8	2	0	18	1,155	893	7	1	0	13	906
Departure	1,137	8	2	0	18	1,155	893	7	1	0	13	906
Total	2,274	16	4	0	36	2,310	1,786	14	2	0	26	1,812

**Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour					Total PCE Volume	
	Pass. Veh.	Trucks			PCE	Pass. Veh.	Trucks			PCE		
		2 Axle	3 Axle	4 Axle			2 Axle	3 Axle	4 Axle			
12 . Bay Road/State Route 189												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	79	0	0	0	0	79	60	0	0	0	0	60
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	170	0	0	0	0	170	182	0	0	0	0	182
EBL	191	0	0	0	0	191	119	0	0	0	0	119
EBT	244	2	0	0	3	247	148	0	0	0	0	148
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	171	3	0	0	5	176	129	0	0	0	0	129
WBR	91	0	0	0	0	91	37	0	0	0	0	37
North Leg												
Approach	249	0	0	0	0	249	242	0	0	0	0	242
Departure	282	0	0	0	0	282	156	0	0	0	0	156
Total	531	0	0	0	0	531	398	0	0	0	0	398
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	262	3	0	0	5	267	166	0	0	0	0	166
Departure	323	2	0	0	3	326	208	0	0	0	0	208
Total	585	5	0	0	8	593	374	0	0	0	0	374
West Leg												
Approach	435	2	0	0	3	438	267	0	0	0	0	267
Departure	341	3	0	0	5	346	311	0	0	0	0	311
Total	776	5	0	0	8	784	578	0	0	0	0	578
Total Approaches												
Approach	946	5	0	0	8	954	675	0	0	0	0	675
Departure	946	5	0	0	8	954	675	0	0	0	0	675
Total	1,892	10	0	0	16	1,908	1,350	0	0	0	0	1,350

**Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
17 . State Route 173/State Route 18												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	50	1	0	0	2	52	51	0	0	0	0	51
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	112	0	0	0	0	112	148	0	0	0	0	148
EBL	186	2	0	0	3	189	134	2	0	0	3	137
EBT	305	0	0	0	0	305	122	0	0	0	0	122
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	201	4	0	0	6	207	139	0	0	0	0	139
WBR	79	1	0	0	2	81	50	1	0	0	2	52
North Leg												
Approach	162	1	0	0	2	164	199	0	0	0	0	199
Departure	265	3	0	0	5	270	184	3	0	0	5	189
Total	427	4	0	0	7	434	383	3	0	0	5	388
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	280	5	0	0	8	288	189	1	0	0	2	191
Departure	355	1	0	0	2	357	173	0	0	0	0	173
Total	635	6	0	0	10	645	362	1	0	0	2	364
West Leg												
Approach	491	2	0	0	3	494	256	2	0	0	3	259
Departure	313	4	0	0	6	319	287	0	0	0	0	287
Total	804	6	0	0	9	813	543	2	0	0	3	546
Total Approaches												
Approach	933	8	0	0	13	946	644	3	0	0	5	649
Departure	933	8	0	0	13	946	644	3	0	0	5	649
Total	1,866	16	0	0	26	1,892	1,288	6	0	0	10	1,298

**Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Pass. Veh.	Trucks			Total PCE Volume	Pass. Veh.	Trucks			Total PCE Volume		
		2 Axle	3 Axle	4 Axle			PCE	2 Axle	3 Axle		4 Axle	PCE
18 . Pine Avenue/State Route 18												
NBL	29	0	1	0	2	31	25	0	0	0	0	25
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	109	0	0	0	0	109	28	0	0	0	0	28
SBL	2	0	0	0	0	2	3	0	0	0	0	3
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	1	0	0	0	0	1	0	0	0	0	0	0
EBL	1	0	0	0	0	1	0	0	0	0	0	0
EBT	504	3	2	0	9	513	297	3	0	0	5	302
EBR	29	1	0	0	2	31	13	0	0	0	0	13
WBL	119	0	0	0	0	119	31	0	0	0	0	31
WBT	346	4	0	0	6	352	466	4	1	0	8	474
WBR	1	0	0	0	0	1	0	0	0	0	0	0
North Leg												
Approach	3	0	0	0	0	3	3	0	0	0	0	3
Departure	2	0	0	0	0	2	0	0	0	0	0	0
Total	5	0	0	0	0	5	3	0	0	0	0	3
South Leg												
Approach	138	0	1	0	2	140	53	0	0	0	0	53
Departure	148	1	0	0	2	150	44	0	0	0	0	44
Total	286	1	1	0	4	290	97	0	0	0	0	97
East Leg												
Approach	466	4	0	0	6	472	497	4	1	0	8	505
Departure	615	3	2	0	9	624	328	3	0	0	5	333
Total	1,081	7	2	0	15	1,096	825	7	1	0	13	838
West Leg												
Approach	534	4	2	0	11	545	310	3	0	0	5	315
Departure	376	4	1	0	8	384	491	4	1	0	8	499
Total	910	8	3	0	19	929	801	7	1	0	13	814
Total Approaches												
Approach	1,141	8	3	0	19	1,160	863	7	1	0	13	876
Departure	1,141	8	3	0	19	1,160	863	7	1	0	13	876
Total	2,282	16	6	0	38	2,320	1,726	14	2	0	26	1,752

Table B-2 - Existing Peak Hour Truck Percentages

	Saturday Peak Hour				Sunday Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
3 . Lake Gregory Drive/State Route 18								
NBL	0	0	0	0.0%	0	0	0	0.0%
NBT	0	0	0	0.0%	0	0	0	0.0%
NBR	0	0	0	0.0%	0	0	0	0.0%
SBL	203	1	204	0.5%	123	1	124	0.8%
SBT	0	0	0	0.0%	0	0	0	0.0%
SBR	93	0	93	0.0%	126	1	127	0.8%
EBL	79	1	80	1.3%	75	1	76	1.3%
EBT	300	5	305	1.6%	187	2	189	1.1%
EBR	0	0	0	0.0%	0	0	0	0.0%
WBL	0	0	0	0.0%	0	0	0	0.0%
WBT	253	2	255	0.8%	368	5	373	1.3%
WBR	139	2	141	1.4%	97	0	97	0.0%
North Leg								
Approach	296	1	297		249	2	251	
Departure	218	3	221		172	1	173	
Total	514	4	518	0.8%	421	3	424	0.7%
South Leg								
Approach	0	0	0		0	0	0	
Departure	0	0	0		0	0	0	
Total	0	0	0	0.0%	0	0	0	0.0%
East Leg								
Approach	392	4	396		465	5	470	
Departure	503	6	509		310	3	313	
Total	895	10	905	1.1%	775	8	783	1.0%
West Leg								
Approach	379	6	385		262	3	265	
Departure	346	2	348		494	6	500	
Total	725	8	733	1.1%	756	9	765	1.2%
Total Approaches								
Approach	1,067	11	1,078		976	10	986	
Departure	1,067	11	1,078		976	10	986	
Total	2,134	22	2,156	1.0%	1,952	20	1,972	1.0%

Table B-2 - Existing Peak Hour Truck Percentages

	Saturday Peak Hour				Sunday Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
4 . Bear Springs Road/State Route 18								
NBL	3	0	3	0.0%	0	0	0	0.0%
NBT	0	0	0	0.0%	0	0	0	0.0%
NBR	1	0	1	0.0%	2	0	2	0.0%
SBL	17	1	18	5.6%	13	0	13	0.0%
SBT	1	0	1	0.0%	0	0	0	0.0%
SBR	42	0	42	0.0%	17	0	17	0.0%
EBL	30	1	31	3.2%	15	0	15	0.0%
EBT	630	5	635	0.8%	335	3	338	0.9%
EBR	2	0	2	0.0%	0	0	0	0.0%
WBL	5	0	5	0.0%	2	0	2	0.0%
WBT	454	5	459	1.1%	524	5	529	0.9%
WBR	20	0	20	0.0%	11	0	11	0.0%
North Leg								
Approach	60	1	61		30	0	30	
Departure	50	1	51		26	0	26	
Total	110	2	112	1.8%	56	0	56	0.0%
South Leg								
Approach	4	0	4		2	0	2	
Departure	8	0	8		2	0	2	
Total	12	0	12	0.0%	4	0	4	0.0%
East Leg								
Approach	479	5	484		537	5	542	
Departure	648	6	654		350	3	353	
Total	1,127	11	1,138	1.0%	887	8	895	0.9%
West Leg								
Approach	662	6	668		350	3	353	
Departure	499	5	504		541	5	546	
Total	1,161	11	1,172	0.9%	891	8	899	0.9%
Total Approaches								
Approach	1,205	12	1,217		919	8	927	
Departure	1,205	12	1,217		919	8	927	
Total	2,410	24	2,434	1.0%	1,838	16	1,854	0.9%

Table B-2 - Existing Peak Hour Truck Percentages

	Saturday Peak Hour				Sunday Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
7 . State Route 189/Grass Valley Road								
NBL	0	0	0	0.0%	0	0	0	0.0%
NBT	65	1	66	1.5%	45	0	45	0.0%
NBR	127	1	128	0.8%	84	0	84	0.0%
SBL	64	0	64	0.0%	55	0	55	0.0%
SBT	131	1	132	0.8%	117	0	117	0.0%
SBR	0	0	0	0.0%	0	0	0	0.0%
EBL	0	0	0	0.0%	0	0	0	0.0%
EBT	0	0	0	0.0%	0	0	0	0.0%
EBR	0	0	0	0.0%	0	0	0	0.0%
WBL	181	1	182	0.5%	179	1	180	0.6%
WBT	0	0	0	0.0%	0	0	0	0.0%
WBR	126	0	126	0.0%	126	0	126	0.0%
North Leg								
Approach	195	1	196		172	0	172	
Departure	191	1	192		171	0	171	
Total	386	2	388	0.5%	343	0	343	0.0%
South Leg								
Approach	192	2	194		129	0	129	
Departure	312	2	314		296	1	297	
Total	504	4	508	0.8%	425	1	426	0.2%
East Leg								
Approach	307	1	308		305	1	306	
Departure	191	1	192		139	0	139	
Total	498	2	500	0.4%	444	1	445	0.2%
West Leg								
Approach	0	0	0		0	0	0	
Departure	0	0	0		0	0	0	
Total	0	0	0	0.0%	0	0	0	0.0%
Total Approaches								
Approach	694	4	698		606	1	607	
Departure	694	4	698		606	1	607	
Total	1,388	8	1,396	0.6%	1,212	2	1,214	0.2%

Table B-2 - Existing Peak Hour Truck Percentages

	Saturday Peak Hour				Sunday Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
10 . Daley Canyon Road/State Route 18								
NBL	0	0	0	0.0%	0	0	0	0.0%
NBT	0	0	0	0.0%	0	0	0	0.0%
NBR	0	0	0	0.0%	0	0	0	0.0%
SBL	4	0	4	0.0%	2	0	2	0.0%
SBT	0	0	0	0.0%	0	0	0	0.0%
SBR	223	3	226	1.3%	267	2	269	0.7%
EBL	266	1	267	0.4%	106	0	106	0.0%
EBT	384	4	388	1.0%	243	3	246	1.2%
EBR	0	0	0	0.0%	0	0	0	0.0%
WBL	0	0	0	0.0%	0	0	0	0.0%
WBT	259	2	261	0.8%	270	3	273	1.1%
WBR	1	0	1	0.0%	5	0	5	0.0%
North Leg								
Approach	227	3	230		269	2	271	
Departure	267	1	268		111	0	111	
Total	494	4	498	0.8%	380	2	382	0.5%
South Leg								
Approach	0	0	0		0	0	0	
Departure	0	0	0		0	0	0	
Total	0	0	0	0.0%	0	0	0	0.0%
East Leg								
Approach	260	2	262		275	3	278	
Departure	388	4	392		245	3	248	
Total	648	6	654	0.9%	520	6	526	1.1%
West Leg								
Approach	650	5	655		349	3	352	
Departure	482	5	487		537	5	542	
Total	1,132	10	1,142	0.9%	886	8	894	0.9%
Total Approaches								
Approach	1,137	10	1,147		893	8	901	
Departure	1,137	10	1,147		893	8	901	
Total	2,274	20	2,294	0.9%	1,786	16	1,802	0.9%

Table B-2 - Existing Peak Hour Truck Percentages

	Saturday Peak Hour				Sunday Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
12 . Bay Road/State Route 189								
NBL	0	0	0	0.0%	0	0	0	0.0%
NBT	0	0	0	0.0%	0	0	0	0.0%
NBR	0	0	0	0.0%	0	0	0	0.0%
SBL	79	0	79	0.0%	60	0	60	0.0%
SBT	0	0	0	0.0%	0	0	0	0.0%
SBR	170	0	170	0.0%	182	0	182	0.0%
EBL	191	0	191	0.0%	119	0	119	0.0%
EBT	244	2	246	0.8%	148	0	148	0.0%
EBR	0	0	0	0.0%	0	0	0	0.0%
WBL	0	0	0	0.0%	0	0	0	0.0%
WBT	171	3	174	1.7%	129	0	129	0.0%
WBR	91	0	91	0.0%	37	0	37	0.0%
North Leg								
Approach	249	0	249		242	0	242	
Departure	282	0	282		156	0	156	
Total	531	0	531	0.0%	398	0	398	0.0%
South Leg								
Approach	0	0	0		0	0	0	
Departure	0	0	0		0	0	0	
Total	0	0	0	0.0%	0	0	0	0.0%
East Leg								
Approach	262	3	265		166	0	166	
Departure	323	2	325		208	0	208	
Total	585	5	590	0.8%	374	0	374	0.0%
West Leg								
Approach	435	2	437		267	0	267	
Departure	341	3	344		311	0	311	
Total	776	5	781	0.6%	578	0	578	0.0%
Total Approaches								
Approach	946	5	951		675	0	675	
Departure	946	5	951		675	0	675	
Total	1,892	10	1,902	0.5%	1,350	0	1,350	0.0%

Table B-2 - Existing Peak Hour Truck Percentages

	Saturday Peak Hour				Sunday Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
17 . State Route 173/State Route 18								
NBL	0	0	0	0.0%	0	0	0	0.0%
NBT	0	0	0	0.0%	0	0	0	0.0%
NBR	0	0	0	0.0%	0	0	0	0.0%
SBL	50	1	51	2.0%	51	0	51	0.0%
SBT	0	0	0	0.0%	0	0	0	0.0%
SBR	112	0	112	0.0%	148	0	148	0.0%
EBL	186	2	188	1.1%	134	2	136	1.5%
EBT	305	0	305	0.0%	122	0	122	0.0%
EBR	0	0	0	0.0%	0	0	0	0.0%
WBL	0	0	0	0.0%	0	0	0	0.0%
WBT	201	4	205	2.0%	139	0	139	0.0%
WBR	79	1	80	1.3%	50	1	51	2.0%
North Leg								
Approach	162	1	163		199	0	199	
Departure	265	3	268		184	3	187	
Total	427	4	431	0.9%	383	3	386	0.8%
South Leg								
Approach	0	0	0		0	0	0	
Departure	0	0	0		0	0	0	
Total	0	0	0	0.0%	0	0	0	0.0%
East Leg								
Approach	280	5	285		189	1	190	
Departure	355	1	356		173	0	173	
Total	635	6	641	0.9%	362	1	363	0.3%
West Leg								
Approach	491	2	493		256	2	258	
Departure	313	4	317		287	0	287	
Total	804	6	810	0.7%	543	2	545	0.4%
Total Approaches								
Approach	933	8	941		644	3	647	
Departure	933	8	941		644	3	647	
Total	1,866	16	1,882	0.9%	1,288	6	1,294	0.5%

Table B-2 - Existing Peak Hour Truck Percentages

	Saturday Peak Hour				Sunday Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
18 . Pine Avenue/State Route 18								
NBL	29	1	30	3.3%	25	0	25	0.0%
NBT	0	0	0	0.0%	0	0	0	0.0%
NBR	109	0	109	0.0%	28	0	28	0.0%
SBL	2	0	2	0.0%	3	0	3	0.0%
SBT	0	0	0	0.0%	0	0	0	0.0%
SBR	1	0	1	0.0%	0	0	0	0.0%
EBL	1	0	1	0.0%	0	0	0	0.0%
EBT	504	5	509	1.0%	297	3	300	1.0%
EBR	29	1	30	3.3%	13	0	13	0.0%
WBL	119	0	119	0.0%	31	0	31	0.0%
WBT	346	4	350	1.1%	466	5	471	1.1%
WBR	1	0	1	0.0%	0	0	0	0.0%
North Leg								
Approach	3	0	3		3	0	3	
Departure	2	0	2		0	0	0	
Total	5	0	5	0.0%	3	0	3	0.0%
South Leg								
Approach	138	1	139		53	0	53	
Departure	148	1	149		44	0	44	
Total	286	2	288	0.7%	97	0	97	0.0%
East Leg								
Approach	466	4	470		497	5	502	
Departure	615	5	620		328	3	331	
Total	1,081	9	1,090	0.8%	825	8	833	1.0%
West Leg								
Approach	534	6	540		310	3	313	
Departure	376	5	381		491	5	496	
Total	910	11	921	1.2%	801	8	809	1.0%
Total Approaches								
Approach	1,141	11	1,152		863	8	871	
Departure	1,141	11	1,152		863	8	871	
Total	2,282	22	2,304	1.0%	1,726	16	1,742	0.9%

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
1 . Crest Forest Drive/State Route 18												
NBL	0		0	0	0	0		0	0	0	0	
NBT	0		0	0	0	0		0	0	0	0	
NBR	0		0	0	0	0		0	0	0	0	
SBL	27		27	0	0	38		38	0	0	38	
SBT	0		0	0	0	0		0	0	0	0	
SBR	1		1	0	0	0		0	0	0	0	
EBL	1		1	0	0	1		1	0	0	1	
EBT	362	1.1%	358	4	10	368	224	1.2%	221	3	8	229
EBR	0		0	0	0	0		0	0	0	0	
WBL	0		0	0	0	0		0	0	0	0	
WBT	305	1.1%	302	3	8	310	504	1.2%	498	6	15	513
WBR	45		45	0	0	45	26		26	0	0	26
North Leg												
Approach	28		28	0	0	28	38		38	0	0	38
Departure	46		46	0	0	46	27		27	0	0	27
Total	74		74	0	0	74	65		65	0	0	65
South Leg												
Approach	0		0	0	0	0	0		0	0	0	0
Departure	0		0	0	0	0	0		0	0	0	0
Total	0		0	0	0	0	0		0	0	0	0
East Leg												
Approach	350		347	3	8	355	530		524	6	15	539
Departure	389		385	4	10	395	262		259	3	8	267
Total	739		732	7	18	750	792		783	9	23	806
West Leg												
Approach	363		359	4	10	369	225		222	3	8	230
Departure	306		303	3	8	311	504		498	6	15	513
Total	669		662	7	18	680	729		720	9	23	743
Total Approaches												
Approach	741		734	7	18	752	793		784	9	23	807
Departure	741		734	7	18	752	793		784	9	23	807
Total	1,482		1,468	14	36	1,504	1,586		1,568	18	46	1,614

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
2 . Lake Gregory Drive/State Route 189												
NBL	0		0	0	0	0		0	0	0	0	
NBT	164	0.8%	163	1	3	166	113	0.7%	112	1	3	115
NBR	58	0.8%	58	0	0	58	58	0.7%	58	0	0	58
SBL	64	0.8%	64	0	0	64	49	0.7%	49	0	0	49
SBT	226	0.8%	224	2	5	229	154	0.7%	153	1	3	156
SBR	0		0	0	0	0	0		0	0	0	0
EBL	0		0	0	0	0	0		0	0	0	0
EBT	0		0	0	0	0	0		0	0	0	0
EBR	0		0	0	0	0	0		0	0	0	0
WBL	71	0.8%	70	1	3	73	95	0.7%	94	1	3	97
WBT	0		0	0	0	0	0		0	0	0	0
WBR	67	0.8%	66	1	3	69	47	0.7%	47	0	0	47
North Leg												
Approach	290		288	2	5	293	203		202	1	3	205
Departure	231		229	2	6	235	160		159	1	3	162
Total	521		517	4	11	528	363		361	2	6	367
South Leg												
Approach	222		221	1	3	224	171		170	1	3	173
Departure	297		294	3	8	302	249		247	2	6	253
Total	519		515	4	11	526	420		417	3	9	426
East Leg												
Approach	138		136	2	6	142	142		141	1	3	144
Departure	122		122	0	0	122	107		107	0	0	107
Total	260		258	2	6	264	249		248	1	3	251
West Leg												
Approach	0		0	0	0	0	0		0	0	0	0
Departure	0		0	0	0	0	0		0	0	0	0
Total	0		0	0	0	0	0		0	0	0	0
Total Approaches												
Approach	650		645	5	14	659	516		513	3	9	522
Departure	650		645	5	14	659	516		513	3	9	522
Total	1,300		1,290	10	28	1,318	1,032		1,026	6	18	1,044

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
6 . Lake Forest Drive/Grass Valley Road												
NBL	7		7	0	0	7		2	0	0	2	
NBT	234	0.4%	233	1	3	236	165	0.2%	165	0	0	165
NBR	0		0	0	0	0	0		0	0	0	0
SBL	0		0	0	0	0	0		0	0	0	0
SBT	224	0.4%	223	1	3	226	267	0.2%	266	1	3	269
SBR	3		3	0	0	3	4		4	0	0	4
EBL	1		1	0	0	1	2		2	0	0	2
EBT	0		0	0	0	0	0		0	0	0	0
EBR	9		9	0	0	9	4		4	0	0	4
WBL	0		0	0	0	0	0		0	0	0	0
WBT	0		0	0	0	0	0		0	0	0	0
WBR	0		0	0	0	0	0		0	0	0	0
North Leg												
Approach	227		226	1	3	229	271		270	1	3	273
Departure	235		234	1	3	237	167		167	0	0	167
Total	462		460	2	6	466	438		437	1	3	440
South Leg												
Approach	241		240	1	3	243	167		167	0	0	167
Departure	233		232	1	3	235	271		270	1	3	273
Total	474		472	2	6	478	438		437	1	3	440
East Leg												
Approach	0		0	0	0	0	0		0	0	0	0
Departure	0		0	0	0	0	0		0	0	0	0
Total	0		0	0	0	0	0		0	0	0	0
West Leg												
Approach	10		10	0	0	10	6		6	0	0	6
Departure	10		10	0	0	10	6		6	0	0	6
Total	20		20	0	0	20	12		12	0	0	12
Total Approaches												
Approach	478		476	2	6	482	444		443	1	3	446
Departure	478		476	2	6	482	444		443	1	3	446
Total	956		952	4	12	964	888		886	2	6	892

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
8 . Daley Canyon Road/State Route 189												
NBL	164	0.8%	163	1	3	166	100	0.2%	100	0	0	100
NBT	245	0.8%	243	2	5	248	136	0.2%	136	0	0	136
NBR	0		0	0	0	0	0		0	0	0	0
SBL	0		0	0	0	0	0		0	0	0	0
SBT	185	0.8%	184	1	3	187	183	0.2%	183	0	0	183
SBR	42	0.8%	42	0	0	42	36	0.2%	36	0	0	36
EBL	174	0.8%	173	1	3	176	141	0.2%	141	0	0	141
EBT	0		0	0	0	0	0		0	0	0	0
EBR	157	0.8%	156	1	3	159	171	0.2%	171	0	0	171
WBL	0		0	0	0	0	0		0	0	0	0
WBT	0		0	0	0	0	0		0	0	0	0
WBR	0		0	0	0	0	0		0	0	0	0
North Leg												
Approach	227		226	1	3	229	219		219	0	0	219
Departure	419		416	3	8	424	277		277	0	0	277
Total	646		642	4	11	653	496		496	0	0	496
South Leg												
Approach	409		406	3	8	414	236		236	0	0	236
Departure	342		340	2	6	346	354		354	0	0	354
Total	751		746	5	14	760	590		590	0	0	590
East Leg												
Approach	0		0	0	0	0	0		0	0	0	0
Departure	0		0	0	0	0	0		0	0	0	0
Total	0		0	0	0	0	0		0	0	0	0
West Leg												
Approach	331		329	2	6	335	312		312	0	0	312
Departure	206		205	1	3	208	136		136	0	0	136
Total	537		534	3	9	543	448		448	0	0	448
Total Approaches												
Approach	967		961	6	17	978	767		767	0	0	767
Departure	967		961	6	17	978	767		767	0	0	767
Total	1,934		1,922	12	34	1,956	1,534		1,534	0	0	1,534

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
9 . Daley Canyon Road/Daley Canyon Access Road												
NBL	0		0	0	0	0		0	0	0	0	
NBT	272	0.8%	270	2	5	275	110	0.5%	109	1	3	112
NBR	0		0	0	0	0		0	0	0	0	
SBL	112	0.8%	111	1	3	114	94	0.5%	94	0	0	94
SBT	229	0.8%	227	2	5	232	256	0.5%	255	1	3	258
SBR	0		0	0	0	0		0	0	0	0	
EBL	0		0	0	0	0		0	0	0	0	
EBT	0		0	0	0	0		0	0	0	0	
EBR	0		0	0	0	0		0	0	0	0	
WBL	1	0.8%	1	0	0	1	15	0.5%	15	0	0	15
WBT	0		0	0	0	0		0	0	0	0	
WBR	144	0.8%	143	1	3	146	121	0.5%	120	1	3	123
North Leg												
Approach	341		338	3	8	346	350		349	1	3	352
Departure	416		413	3	8	421	231		229	2	6	235
Total	757		751	6	16	767	581		578	3	9	587
South Leg												
Approach	272		270	2	5	275	110		109	1	3	112
Departure	230		228	2	5	233	271		270	1	3	273
Total	502		498	4	10	508	381		379	2	6	385
East Leg												
Approach	145		144	1	3	147	136		135	1	3	138
Departure	112		111	1	3	114	94		94	0	0	94
Total	257		255	2	6	261	230		229	1	3	232
West Leg												
Approach	0		0	0	0	0	0		0	0	0	0
Departure	0		0	0	0	0	0		0	0	0	0
Total	0		0	0	0	0	0		0	0	0	0
Total Approaches												
Approach	758		752	6	16	768	596		593	3	9	602
Departure	758		752	6	16	768	596		593	3	9	602
Total	1,516		1,504	12	32	1,536	1,192		1,186	6	18	1,204

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
11 . Daley Canyon Access Road/State Route 18												
NBL	0		0	0	0	0		0	0	0	0	
NBT	0		0	0	0	0		0	0	0	0	
NBR	0		0	0	0	0		0	0	0	0	
SBL	117	0.8%	116	1	3	119	116	0.5%	115	1	3	118
SBT	0		0	0	0	0		0	0	0	0	
SBR	6		6	0	0	6	4		4	0	0	4
EBL	6		6	0	0	6	10		10	0	0	10
EBT	384	0.9%	380	4	10	390	239	1.1%	236	3	8	244
EBR	0		0	0	0	0		0	0	0	0	
WBL	0		0	0	0	0		0	0	0	0	
WBT	270	0.9%	268	2	5	273	272	1.1%	269	3	8	277
WBR	162	0.9%	161	1	3	164	101	1.1%	100	1	3	103
North Leg												
Approach	123		122	1	3	125	120		119	1	3	122
Departure	168		167	1	3	170	111		110	1	3	113
Total	291		289	2	6	295	231		229	2	6	235
South Leg												
Approach	0		0	0	0	0	0		0	0	0	0
Departure	0		0	0	0	0	0		0	0	0	0
Total	0		0	0	0	0	0		0	0	0	0
East Leg												
Approach	432		429	3	8	437	373		369	4	11	380
Departure	501		496	5	13	509	355		351	4	11	362
Total	933		925	8	21	946	728		720	8	22	742
West Leg												
Approach	390		386	4	10	396	249		246	3	8	254
Departure	276		274	2	5	279	276		273	3	8	281
Total	666		660	6	15	675	525		519	6	16	535
Total Approaches												
Approach	945		937	8	21	958	742		734	8	22	756
Departure	945		937	8	21	958	742		734	8	22	756
Total	1,890		1,874	16	42	1,916	1,484		1,468	16	44	1,512

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour					
	Total	Truck	Pass.	Truck	Total	Total	Truck	Pass.	Truck	Total	
	Veh.	%	Veh.	Truck PCE	Vol	Veh.	%	Veh.	Truck PCE	Vol	
13 . Bay Road/Little Bear Road											
NBL	8		8	0	0	8		10	0	0	10
NBT	226		226	0	0	226		132	0	0	132
NBR	0		0	0	0	0		0	0	0	0
SBL	0		0	0	0	0		0	0	0	0
SBT	214		214	0	0	214		234	0	0	234
SBR	0		0	0	0	0		2	0	0	2
EBL	0		0	0	0	0		0	0	0	0
EBT	0		0	0	0	0		0	0	0	0
EBR	17		17	0	0	17		15	0	0	15
WBL	0		0	0	0	0		0	0	0	0
WBT	0		0	0	0	0		0	0	0	0
WBR	0		0	0	0	0		0	0	0	0
North Leg											
Approach	214		214	0	0	214		236	0	0	236
Departure	226		226	0	0	226		132	0	0	132
Total	440		440	0	0	440		368	0	0	368
South Leg											
Approach	234		234	0	0	234		142	0	0	142
Departure	231		231	0	0	231		249	0	0	249
Total	465		465	0	0	465		391	0	0	391
East Leg											
Approach	0		0	0	0	0		0	0	0	0
Departure	0		0	0	0	0		0	0	0	0
Total	0		0	0	0	0		0	0	0	0
West Leg											
Approach	17		17	0	0	17		15	0	0	15
Departure	8		8	0	0	8		12	0	0	12
Total	25		25	0	0	25		27	0	0	27
Total Approaches											
Approach	465		465	0	0	465		393	0	0	393
Departure	465		465	0	0	465		393	0	0	393
Total	930		930	0	0	930		786	0	0	786

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour				
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol
14 . Rocky Point Road/State Route 189										
NBL	0		0	0	0	0		0	0	0
NBT	0		0	0	0	0		0	0	0
NBR	0		0	0	0	0		0	0	0
SBL	2		2	0	2	2		2	0	2
SBT	0		0	0	0	0		0	0	0
SBR	4		4	0	4	2		2	0	2
EBL	12		12	0	12	1		1	0	1
EBT	310		310	0	310	212		212	0	212
EBR	0		0	0	0	0		0	0	0
WBL	0		0	0	0	0		0	0	0
WBT	253		253	0	253	151		151	0	151
WBR	2		2	0	2	3		3	0	3
North Leg										
Approach	6		6	0	6	4		4	0	4
Departure	14		14	0	14	4		4	0	4
Total	20		20	0	20	8		8	0	8
South Leg										
Approach	0		0	0	0	0		0	0	0
Departure	0		0	0	0	0		0	0	0
Total	0		0	0	0	0		0	0	0
East Leg										
Approach	255		255	0	255	154		154	0	154
Departure	312		312	0	312	214		214	0	214
Total	567		567	0	567	368		368	0	368
West Leg										
Approach	322		322	0	322	213		213	0	213
Departure	257		257	0	257	153		153	0	153
Total	579		579	0	579	366		366	0	366
Total Approaches										
Approach	583		583	0	583	371		371	0	371
Departure	583		583	0	583	371		371	0	371
Total	1,166		1,166	0	1,166	742		742	0	742

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour					
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	
15 . Greenway Drive/State Route 189											
NBL	2		2	0	0	2		0	0	0	0
NBT	0		0	0	0	0		0	0	0	0
NBR	0		0	0	0	0		2	2	0	0
SBL	1		1	0	0	1		0	0	0	0
SBT	0		0	0	0	0		0	0	0	0
SBR	7		7	0	0	7		1	1	0	0
EBL	5		5	0	0	5		1	1	0	0
EBT	303	0.8%	300	3	8	308	202	0.0%	202	0	0
EBR	1		1	0	0	1		1	1	0	0
WBL	0		0	0	0	0		1	1	0	0
WBT	246	0.8%	244	2	5	249	165	0.0%	165	0	0
WBR	1		1	0	0	1		0	0	0	0
North Leg											
Approach	8		8	0	0	8	1		1	0	0
Departure	6		6	0	0	6	1		1	0	0
Total	14		14	0	0	14	2		2	0	0
South Leg											
Approach	2		2	0	0	2	2		2	0	0
Departure	1		1	0	0	1	2		2	0	0
Total	3		3	0	0	3	4		4	0	0
East Leg											
Approach	247		245	2	5	250	166		166	0	0
Departure	304		301	3	8	309	204		204	0	0
Total	551		546	5	13	559	370		370	0	0
West Leg											
Approach	309		306	3	8	314	204		204	0	0
Departure	255		253	2	5	258	166		166	0	0
Total	564		559	5	13	572	370		370	0	0
Total Approaches											
Approach	566		561	5	13	574	373		373	0	0
Departure	566		561	5	13	574	373		373	0	0
Total	1,132		1,122	10	26	1,148	746		746	0	0

**Table B-3 - Existing Peak Hour Volumes
(Intersections Without Classification Counts)**

	Saturday Peak Hour					Sunday Peak Hour						
	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol	Total Veh.	Truck %	Pass. Veh.	Truck PCE	Total PCE Vol		
16 . State Route 173/Crest Estates Drive												
NBL	0		0	0	0	0		0	0	0	0	
NBT	233	0.9%	231	2	5	236	161	0.8%	160	1	3	163
NBR	3		3	0	0	3	64		64	0	0	64
SBL	2		2	0	0	2	1		1	0	0	1
SBT	131	0.9%	130	1	3	133	109	0.8%	108	1	3	111
SBR	0		0	0	0	0	0		0	0	0	0
EBL	0		0	0	0	0	0		0	0	0	0
EBT	0		0	0	0	0	0		0	0	0	0
EBR	0		0	0	0	0	0		0	0	0	0
WBL	0		0	0	0	0	48		48	0	0	48
WBT	0		0	0	0	0	0		0	0	0	0
WBR	3		3	0	0	3	25		25	0	0	25
North Leg												
Approach	133		132	1	3	135	110		109	1	3	112
Departure	236		234	2	5	239	186		185	1	3	188
Total	369		366	3	8	374	296		294	2	6	300
South Leg												
Approach	236		234	2	5	239	225		224	1	3	227
Departure	131		130	1	3	133	157		156	1	3	159
Total	367		364	3	8	372	382		380	2	6	386
East Leg												
Approach	3		3	0	0	3	73		73	0	0	73
Departure	5		5	0	0	5	65		65	0	0	65
Total	8		8	0	0	8	138		138	0	0	138
West Leg												
Approach	0		0	0	0	0	0		0	0	0	0
Departure	0		0	0	0	0	0		0	0	0	0
Total	0		0	0	0	0	0		0	0	0	0
Total Approaches												
Approach	372		369	3	8	377	408		406	2	6	412
Departure	372		369	3	8	377	408		406	2	6	412
Total	744		738	6	16	754	816		812	4	12	824

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
1 . Crest Forest Drive/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	27	2	29	9	38	38	3	41	10	51
SBT	0	0	0	0	0	0	0	0	0	0
SBR	1	0	1	0	1	0	0	0	0	0
EBL	1	0	1	0	1	1	0	1	0	1
EBT	368	31	399	9	408	229	19	248	10	258
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	310	26	336	11	347	513	43	556	10	566
WBR	45	4	49	11	60	26	2	28	10	38
North Leg										
Approach	28	2	30	9	39	38	3	41	10	51
Departure	46	4	50	11	61	27	2	29	10	39
Total	74	6	80	20	100	65	5	70	20	90
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	355	30	385	22	407	539	45	584	20	604
Departure	395	33	428	18	446	267	22	289	20	309
Total	750	63	813	40	853	806	68	873	40	913
West Leg										
Approach	369	31	400	9	409	230	19	249	10	259
Departure	311	26	337	11	348	513	43	556	10	566
Total	680	57	737	20	757	743	63	805	20	825
Total Approaches										
Approach	752	63	815	40	855	807	68	874	40	914
Departure	752	63	815	40	855	807	68	874	40	914
Total	1,504	127	1,630	80	1,710	1,614	136	1,748	80	1,828

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
2 Lake Gregory Drive/State Route 189										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	166	14	180	33	213	115	10	125	30	155
NBR	58	5	63	0	63	58	5	63	0	63
SBL	64	5	69	0	69	49	4	53	0	53
SBT	229	19	248	26	274	156	13	169	29	198
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	73	6	79	0	79	97	8	105	0	105
WBT	0	0	0	0	0	0	0	0	0	0
WBR	69	6	75	0	75	47	4	51	0	51
North Leg										
Approach	293	25	317	26	343	205	17	222	29	251
Departure	235	20	255	33	288	162	14	176	30	206
Total	528	44	572	59	631	367	31	398	59	457
South Leg										
Approach	224	19	243	33	276	173	15	188	30	218
Departure	302	25	327	26	353	253	21	274	29	303
Total	526	44	570	59	629	426	36	462	59	521
East Leg										
Approach	142	12	154	0	154	144	12	156	0	156
Departure	122	10	132	0	132	107	9	116	0	116
Total	264	22	286	0	286	251	21	272	0	272
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	659	55	714	59	773	522	44	566	59	625
Departure	659	55	714	59	773	522	44	566	59	625
Total	1,318	111	1,428	118	1,546	1,044	88	1,132	118	1,250

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
3 Lake Gregory Drive/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	205	17	222	26	248	125	11	136	29	165
SBT	0	0	0	0	0	0	0	0	0	0
SBR	93	8	101	0	101	128	11	139	0	139
EBL	81	7	88	0	88	77	6	83	0	83
EBT	308	26	334	17	351	190	16	206	20	226
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	256	22	278	22	300	376	32	408	20	428
WBR	142	12	154	33	187	97	8	105	30	135
North Leg										
Approach	298	25	323	26	349	253	21	275	29	304
Departure	223	19	242	33	275	174	15	188	30	218
Total	521	44	565	59	624	427	36	463	59	522
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	398	34	432	55	487	473	40	513	50	563
Departure	513	43	556	43	599	315	27	342	49	391
Total	911	77	988	98	1,086	788	66	855	99	954
West Leg										
Approach	389	33	422	17	439	267	22	289	20	309
Departure	349	29	379	22	401	504	42	547	20	567
Total	738	62	801	39	840	771	65	836	40	876
Total Approaches										
Approach	1,085	91	1,177	98	1,275	993	84	1,077	99	1,176
Departure	1,085	91	1,177	98	1,275	993	84	1,077	99	1,176
Total	2,170	183	2,354	196	2,550	1,986	167	2,154	198	2,352

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour				Sunday Peak Hour					
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
4 Bear Springs Road/State Route 18										
NBL	3	0	3	0	3	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	1	0	1	0	1	2	0	2	0	2
SBL	19	2	21	17	38	13	1	14	20	34
SBT	1	0	1	0	1	0	0	0	0	0
SBR	42	4	46	0	46	17	1	18	0	18
EBL	32	3	35	0	35	15	1	16	0	16
EBT	639	54	693	43	736	340	29	369	49	418
EBR	2	0	2	0	2	0	0	0	0	0
WBL	5	0	5	0	5	2	0	2	0	2
WBT	462	39	501	55	556	532	45	577	50	627
WBR	20	2	22	22	44	11	1	12	20	32
North Leg										
Approach	62	5	68	17	85	30	3	32	20	52
Departure	52	4	57	22	79	26	2	28	20	48
Total	114	10	125	39	164	56	5	60	40	100
South Leg										
Approach	4	0	4	0	4	2	0	2	0	2
Departure	8	1	8	0	8	2	0	2	0	2
Total	12	1	12	0	12	4	0	4	0	4
East Leg										
Approach	487	41	528	77	605	545	46	591	70	661
Departure	659	55	715	60	775	355	30	385	69	454
Total	1,146	97	1,243	137	1,380	900	76	976	139	1,115
West Leg										
Approach	673	57	730	43	773	355	30	385	49	434
Departure	507	43	550	55	605	549	46	595	50	645
Total	1,180	99	1,280	98	1,378	904	76	980	99	1,079
Total Approaches										
Approach	1,226	103	1,330	137	1,467	932	78	1,010	139	1,149
Departure	1,226	103	1,330	137	1,467	932	78	1,010	139	1,149
Total	2,452	206	2,660	274	2,934	1,864	157	2,020	278	2,298

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour				Sunday Peak Hour					
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
5 Project Driveway/State Route 18										
NBL		0	0	0	0		0	0	0	0
NBT		0	0	0	0		0	0	0	0
NBR		0	0	0	0		0	0	0	0
SBL		0	0	144	144		0	0	130	130
SBT		0	0	0	0		0	0	0	0
SBR		0	0	77	77		0	0	70	70
EBL		0	0	60	60		0	0	68	68
EBT	659	55	714	0	714	355	30	385	0	385
EBR		0	0	0	0		0	0	0	0
WBL		0	0	0	0		0	0	0	0
WBT	487	41	528	0	528	545	46	591	0	591
WBR		0	0	111	111		0	0	127	127
North Leg										
Approach	0	0	0	221	221	0	0	0	200	200
Departure	0	0	0	171	171	0	0	0	195	195
Total	0	0	0	392	392	0	0	0	395	395
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	487	41	528	111	639	545	46	591	127	718
Departure	659	55	714	144	858	355	30	385	130	515
Total	1,146	97	1,242	255	1,497	900	76	976	257	1,233
West Leg										
Approach	659	55	714	60	774	355	30	385	68	453
Departure	487	41	528	77	605	545	46	591	70	661
Total	1,146	97	1,242	137	1,379	900	76	976	138	1,114
Total Approaches										
Approach	1,146	97	1,242	392	1,634	900	76	976	395	1,371
Departure	1,146	97	1,242	392	1,634	900	76	976	395	1,371
Total	2,292	193	2,484	784	3,268	1,800	152	1,952	790	2,742

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
6 Lake Forest Drive/Grass Valley Road										
NBL	7	1	8	13	21	2	0	2	12	14
NBT	236	20	256	13	269	165	14	179	12	191
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	226	19	245	10	255	269	23	292	12	304
SBR	3	0	3	0	3	4	0	4	0	4
EBL	1	0	1	0	1	2	0	2	0	2
EBT	0	0	0	0	0	0	0	0	0	0
EBR	9	1	10	10	20	4	0	4	12	16
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	229	19	248	10	258	273	23	296	12	308
Departure	237	20	257	13	270	167	14	181	12	193
Total	466	39	505	23	528	440	37	477	24	501
South Leg										
Approach	243	20	264	26	290	167	14	181	24	205
Departure	235	20	255	20	275	273	23	296	24	320
Total	478	40	519	46	565	440	37	477	48	525
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	10	1	11	10	21	6	1	6	12	18
Departure	10	1	11	13	24	6	1	6	12	18
Total	20	2	22	23	45	12	1	12	24	36
Total Approaches										
Approach	482	41	523	46	569	446	38	483	48	531
Departure	482	41	523	46	569	446	38	483	48	531
Total	964	81	1,046	92	1,138	892	75	966	96	1,062

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
7 State Route 189/Grass Valley Road										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	67	6	73	7	80	45	4	49	6	55
NBR	129	11	140	26	166	84	7	91	24	115
SBL	64	5	69	0	69	55	5	60	0	60
SBT	133	11	144	5	149	117	10	127	6	133
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	183	15	198	20	218	181	15	196	23	219
WBT	0	0	0	0	0	0	0	0	0	0
WBR	126	11	137	0	137	126	11	137	0	137
North Leg										
Approach	197	17	213	5	218	172	14	187	6	193
Departure	193	16	210	7	217	171	14	186	6	192
Total	390	33	423	12	435	343	29	373	12	385
South Leg										
Approach	196	17	213	33	246	129	11	140	30	170
Departure	316	27	342	25	367	298	25	323	29	352
Total	512	43	555	58	613	427	36	463	59	522
East Leg										
Approach	309	26	335	20	355	307	26	333	23	356
Departure	193	16	209	26	235	139	12	151	24	175
Total	502	42	544	46	590	446	38	484	47	531
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	702	59	761	58	819	608	51	660	59	719
Departure	702	59	761	58	819	608	51	660	59	719
Total	1,404	118	1,522	116	1,638	1,216	102	1,320	118	1,438

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
8 Daley Canyon Road/State Route 189										
NBL	166	14	180	33	213	100	8	108	30	138
NBT	248	21	269	55	324	136	11	147	50	197
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	187	16	203	43	246	183	15	198	49	247
SBR	42	4	46	0	46	36	3	39	0	39
EBL	176	15	191	0	191	141	12	153	0	153
EBT	0	0	0	0	0	0	0	0	0	0
EBR	159	13	172	26	198	171	14	185	29	214
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	229	19	249	43	292	219	18	237	49	286
Departure	424	36	460	55	515	277	23	300	50	350
Total	653	55	709	98	807	496	42	537	99	636
South Leg										
Approach	414	35	449	88	537	236	20	255	80	335
Departure	346	29	375	69	444	354	30	383	78	461
Total	760	64	824	157	981	590	50	638	158	796
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	335	28	363	26	389	312	26	338	29	367
Departure	208	18	226	33	259	136	11	147	30	177
Total	543	46	589	59	648	448	38	485	59	544
Total Approaches										
Approach	978	82	1,061	157	1,218	767	65	830	158	988
Departure	978	82	1,061	157	1,218	767	65	830	158	988
Total	1,956	165	2,122	314	2,436	1,534	129	1,660	316	1,976

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
9 Daley Canyon Road/Daley Canyon Access Road										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	275	23	298	88	386	112	9	121	80	201
NBR	0	0	0	0	0	0	0	0	0	0
SBL	114	10	124	0	124	94	8	102	0	102
SBT	232	20	252	68	320	258	22	280	78	358
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	1	0	1	0	1	15	1	16	0	16
WBT	0	0	0	0	0	0	0	0	0	0
WBR	146	12	158	0	158	123	10	133	0	133
North Leg										
Approach	346	29	376	68	444	352	30	382	78	460
Departure	421	35	456	88	544	235	20	254	80	334
Total	767	65	832	156	988	587	49	636	158	794
South Leg										
Approach	275	23	298	88	386	112	9	121	80	201
Departure	233	20	253	68	321	273	23	296	78	374
Total	508	43	551	156	707	385	32	417	158	575
East Leg										
Approach	147	12	159	0	159	138	12	149	0	149
Departure	114	10	124	0	124	94	8	102	0	102
Total	261	22	283	0	283	232	20	251	0	251
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	768	65	833	156	989	602	51	652	158	810
Departure	768	65	833	156	989	602	51	652	158	810
Total	1,536	129	1,666	312	1,978	1,204	101	1,304	316	1,620

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
10 Daley Canyon Road/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	4	0	4	0	4	2	0	2	0	2
SBT	0	0	0	0	0	0	0	0	0	0
SBR	228	19	247	68	315	270	23	293	78	371
EBL	268	23	291	88	379	106	9	115	80	195
EBT	391	33	424	55	479	248	21	269	50	319
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	263	22	285	43	328	275	23	298	49	347
WBR	1	0	1	0	1	5	0	5	0	5
North Leg										
Approach	232	20	251	68	319	272	23	295	78	373
Departure	269	23	292	88	380	111	9	120	80	200
Total	501	42	543	156	699	383	32	415	158	573
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	264	22	286	43	329	280	24	303	49	352
Departure	395	33	428	55	483	250	21	271	50	321
Total	659	55	714	98	812	530	45	574	99	673
West Leg										
Approach	659	55	715	143	858	354	30	384	130	514
Departure	491	41	532	111	643	545	46	591	127	718
Total	1,150	97	1,247	254	1,501	899	76	975	257	1,232
Total Approaches										
Approach	1,155	97	1,252	254	1,506	906	76	982	257	1,239
Departure	1,155	97	1,252	254	1,506	906	76	982	257	1,239
Total	2,310	195	2,504	508	3,012	1,812	153	1,964	514	2,478

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
11 Daley Canyon Access Road/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	119	10	129	0	129	118	10	128	0	128
SBT	0	0	0	0	0	0	0	0	0	0
SBR	6	1	7	0	7	4	0	4	0	4
EBL	6	1	7	0	7	10	1	11	0	11
EBT	390	33	423	55	478	244	21	265	50	315
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	273	23	296	43	339	277	23	300	49	349
WBR	164	14	178	0	178	103	9	112	0	112
North Leg										
Approach	125	11	136	0	136	122	10	132	0	132
Departure	170	14	185	0	185	113	10	123	0	123
Total	295	25	321	0	321	235	20	255	0	255
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	437	37	474	43	517	380	32	412	49	461
Departure	509	43	552	55	607	362	30	393	50	443
Total	946	80	1,026	98	1,124	742	62	805	99	904
West Leg										
Approach	396	33	430	55	485	254	21	276	50	326
Departure	279	23	303	43	346	281	24	304	49	353
Total	675	57	733	98	831	535	45	580	99	679
Total Approaches										
Approach	958	81	1,040	98	1,138	756	64	820	99	919
Departure	958	81	1,040	98	1,138	756	64	820	99	919
Total	1,916	161	2,080	196	2,276	1,512	127	1,640	198	1,838

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
12 Bay Road/State Route 189										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	79	7	86	0	86	60	5	65	0	65
SBT	0	0	0	0	0	0	0	0	0	0
SBR	170	14	184	17	201	182	15	197	20	217
EBL	191	16	207	22	229	119	10	129	20	149
EBT	247	21	268	33	301	148	12	160	30	190
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	176	15	191	26	217	129	11	140	29	169
WBR	91	8	99	0	99	37	3	40	0	40
North Leg										
Approach	249	21	270	17	287	242	20	262	20	282
Departure	282	24	306	22	328	156	13	169	20	189
Total	531	45	576	39	615	398	34	431	40	471
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	267	22	290	26	316	166	14	180	29	209
Departure	326	27	354	33	387	208	18	225	30	255
Total	593	50	644	59	703	374	31	405	59	464
West Leg										
Approach	438	37	475	55	530	267	22	289	50	339
Departure	346	29	375	43	418	311	26	337	49	386
Total	784	66	850	98	948	578	49	626	99	725
Total Approaches										
Approach	954	80	1,035	98	1,133	675	57	731	99	830
Departure	954	80	1,035	98	1,133	675	57	731	99	830
Total	1,908	161	2,070	196	2,266	1,350	114	1,462	198	1,660

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
13 Bay Road/Little Bear Road										
NBL	8	1	9	9	18	10	1	11	8	19
NBT	226	19	245	13	258	132	11	143	12	155
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	214	18	232	10	242	234	20	254	12	266
SBR	0	0	0	0	0	2	0	2	0	2
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	17	1	18	7	25	15	1	16	8	24
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	214	18	232	10	242	236	20	256	12	268
Departure	226	19	245	13	258	132	11	143	12	155
Total	440	37	477	23	500	368	31	399	24	423
South Leg										
Approach	234	20	254	22	276	142	12	154	20	174
Departure	231	19	250	17	267	249	21	270	20	290
Total	465	39	504	39	543	391	33	424	40	464
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	17	1	18	7	25	15	1	16	8	24
Departure	8	1	9	9	18	12	1	13	8	21
Total	25	2	27	16	43	27	2	29	16	45
Total Approaches										
Approach	465	39	504	39	543	393	33	426	40	466
Departure	465	39	504	39	543	393	33	426	40	466
Total	930	78	1,008	78	1,086	786	66	852	80	932

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
14 Rocky Point Road/State Route 189										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	2	0	2	0	2	2	0	2	0	2
SBT	0	0	0	0	0	0	0	0	0	0
SBR	4	0	4	5	9	2	0	2	6	8
EBL	12	1	13	7	20	1	0	1	6	7
EBT	310	26	336	22	358	212	18	230	20	250
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	253	21	274	17	291	151	13	164	20	184
WBR	2	0	2	0	2	3	0	3	0	3
North Leg										
Approach	6	1	6	5	11	4	0	4	6	10
Departure	14	1	15	7	22	4	0	4	6	10
Total	20	2	21	12	33	8	1	8	12	20
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	255	21	276	17	293	154	13	167	20	187
Departure	312	26	338	22	360	214	18	232	20	252
Total	567	48	614	39	653	368	31	399	40	439
West Leg										
Approach	322	27	349	29	378	213	18	231	26	257
Departure	257	22	278	22	300	153	13	166	26	192
Total	579	49	627	51	678	366	31	397	52	449
Total Approaches										
Approach	583	49	631	51	682	371	31	402	52	454
Departure	583	49	631	51	682	371	31	402	52	454
Total	1,166	98	1,262	102	1,364	742	62	804	104	908

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
15 Greenway Drive/State Route 189										
NBL	2	0	2	5	7	0	0	0	6	6
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	2	0	2	0	2
SBL	1	0	1	0	1	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	7	1	8	3	11	1	0	1	4	5
EBL	5	0	5	4	9	1	0	1	4	5
EBT	308	26	334	13	347	202	17	219	12	231
EBR	1	0	1	7	8	1	0	1	6	7
WBL	0	0	0	0	0	1	0	1	0	1
WBT	249	21	270	10	280	165	14	179	12	191
WBR	1	0	1	0	1	0	0	0	0	0
North Leg										
Approach	8	1	9	3	12	1	0	1	4	5
Departure	6	1	6	4	10	1	0	1	4	5
Total	14	1	15	7	22	2	0	2	8	10
South Leg										
Approach	2	0	2	5	7	2	0	2	6	8
Departure	1	0	1	7	8	2	0	2	6	8
Total	3	0	3	12	15	4	0	4	12	16
East Leg										
Approach	250	21	271	10	281	166	14	180	12	192
Departure	309	26	335	13	348	204	17	221	12	233
Total	559	47	606	23	629	370	31	401	24	425
West Leg										
Approach	314	26	340	24	364	204	17	221	22	243
Departure	258	22	280	18	298	166	14	180	22	202
Total	572	48	620	42	662	370	31	401	44	445
Total Approaches										
Approach	574	48	622	42	664	373	31	404	44	448
Departure	574	48	622	42	664	373	31	404	44	448
Total	1,148	97	1,244	84	1,328	746	63	808	88	896

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
16 State Route 173/Crest Estates Drive										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	236	20	256	11	267	163	14	177	10	187
NBR	3	0	3	11	14	64	5	69	10	79
SBL	2	0	2	0	2	1	0	1	0	1
SBT	133	11	144	9	153	111	9	120	10	130
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	9	9	48	4	52	10	62
WBT	0	0	0	0	0	0	0	0	0	0
WBR	3	0	3	0	3	25	2	27	0	27
North Leg										
Approach	135	11	146	9	155	112	9	121	10	131
Departure	239	20	259	11	270	188	16	204	10	214
Total	374	31	405	20	425	300	25	325	20	345
South Leg										
Approach	239	20	259	22	281	227	19	246	20	266
Departure	133	11	144	18	162	159	13	172	20	192
Total	372	31	403	40	443	386	33	418	40	458
East Leg										
Approach	3	0	3	9	12	73	6	79	10	89
Departure	5	0	5	11	16	65	5	70	10	80
Total	8	1	8	20	28	138	12	149	20	169
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	377	32	408	40	448	412	35	446	40	486
Departure	377	32	408	40	448	412	35	446	40	486
Total	754	63	816	80	896	824	69	892	80	972

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
17 State Route 173/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	52	4	56	0	56	51	4	55	0	55
SBT	0	0	0	0	0	0	0	0	0	0
SBR	112	9	121	26	147	148	12	160	29	189
EBL	189	16	205	33	238	137	12	149	30	179
EBT	305	26	331	11	342	122	10	132	10	142
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	207	17	224	9	233	139	12	151	10	161
WBR	81	7	88	0	88	52	4	56	0	56
North Leg										
Approach	164	14	177	26	203	199	17	215	29	244
Departure	270	23	293	33	326	189	16	205	30	235
Total	434	37	470	59	529	388	33	420	59	479
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	288	24	312	9	321	191	16	207	10	217
Departure	357	30	387	11	398	173	15	187	10	197
Total	645	54	699	20	719	364	31	394	20	414
West Leg										
Approach	494	42	536	44	580	259	22	281	40	321
Departure	319	27	345	35	380	287	24	311	39	350
Total	813	68	881	79	960	546	46	592	79	671
Total Approaches										
Approach	946	80	1,025	79	1,104	649	55	703	79	782
Departure	946	80	1,025	79	1,104	649	55	703	79	782
Total	1,892	159	2,050	158	2,208	1,298	109	1,406	158	1,564

Table B-4 - Existing Peak Hour PCE Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project	Existing Without Project	Seasonal Adjustmen	Existing Adjusted Volume	Project Trips	Existing With Project
18 Pine Avenue/State Route 18										
NBL	31	3	34	0	34	25	2	27	0	27
NBT	0	0	0	0	0	0	0	0	0	0
NBR	109	9	118	0	118	28	2	30	0	30
SBL	2	0	2	0	2	3	0	3	0	3
SBT	0	0	0	0	0	0	0	0	0	0
SBR	1	0	1	0	1	0	0	0	0	0
EBL	1	0	1	0	1	0	0	0	0	0
EBT	513	43	556	43	599	302	25	327	49	376
EBR	31	3	34	0	34	13	1	14	0	14
WBL	119	10	129	0	129	31	3	34	0	34
WBT	352	30	382	55	437	474	40	514	50	564
WBR	1	0	1	0	1	0	0	0	0	0
North Leg										
Approach	3	0	3	0	3	3	0	3	0	3
Departure	2	0	2	0	2	0	0	0	0	0
Total	5	0	5	0	5	3	0	3	0	3
South Leg										
Approach	140	12	152	0	152	53	4	57	0	57
Departure	150	13	163	0	163	44	4	48	0	48
Total	290	24	315	0	315	97	8	105	0	105
East Leg										
Approach	472	40	512	55	567	505	43	548	50	598
Departure	624	53	676	43	719	333	28	360	49	409
Total	1,096	92	1,188	98	1,286	838	71	908	99	1,007
West Leg										
Approach	545	46	591	43	634	315	27	341	49	390
Departure	384	32	417	55	472	499	42	541	50	591
Total	929	78	1,008	98	1,106	814	69	882	99	981
Total Approaches										
Approach	1,160	98	1,258	98	1,356	876	74	949	99	1,048
Departure	1,160	98	1,258	98	1,356	876	74	949	99	1,048
Total	2,320	195	2,516	196	2,712	1,752	148	1,898	198	2,096

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
1 . Crest Forest Drive/State Route 18														
NBL	0		0	0	0	0	0	0		0	0	0	0	0
NBT	0		0	0	0	0	0	0		0	0	0	0	0
NBR	0		0	0	0	0	0	0		0	0	0	0	0
SBL	27	0	27	2	29	9	38	38	0	38	3	41	10	51
SBT	0		0	0	0	0	0	0		0	0	0	0	0
SBR	1	0	1	0	1	0	1	0		0	0	0	0	0
EBL	1	0	1	0	1	0	1	1	0	1	0	1	0	1
EBT	368	5	373	31	404	9	413	229	2	231	19	250	10	260
EBR	0	0	0	0	0	0	0	0		0	0	0	0	0
WBL	0	0	0	0	0	0	0	0		0	0	0	0	0
WBT	310	4	314	26	340	11	351	513	5	518	44	562	10	572
WBR	45	1	46	4	50	11	61	26	0	26	2	28	10	38
North Leg														
Approach	28	0	28	2	30	9	39	38	0	38	3	41	10	51
Departure	46	1	47	4	51	11	62	27	0	27	2	29	10	39
Total	74	1	75	6	81	20	101	65	0	65	5	70	20	90
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	355	5	360	30	390	22	412	539	5	544	46	590	20	610
Departure	395	5	400	34	434	18	452	267	2	269	23	292	20	312
Total	750	10	760	64	824	40	864	806	7	813	68	881	40	921
West Leg														
Approach	369	5	374	31	405	9	414	230	2	232	20	252	10	262
Departure	311	4	315	27	342	11	353	513	5	518	44	562	10	572
Total	680	9	689	58	747	20	767	743	7	750	63	813	20	833
Total Approaches														
Approach	752	10	762	64	826	40	866	807	7	814	69	883	40	923
Departure	752	10	762	64	826	40	866	807	7	814	69	883	40	923
Total	1,504	20	1,524	128	1,652	80	1,732	1,614	14	1,628	137	1,765	80	1,845

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
2 Lake Gregory Drive/State Route 189														
NBL	0		0	0	0	0	0	0		0	0	0	0	0
NBT	166	2	168	14	182	33	215	115	1	116	10	126	30	156
NBR	58	1	59	5	64	0	64	58	0	58	5	63	0	63
SBL	64	1	65	5	70	0	70	49	0	49	4	53	0	53
SBT	229	3	232	20	252	26	278	156	1	157	13	170	29	199
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	73	1	74	6	80	0	80	97	1	98	8	106	0	106
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	69	1	70	6	76	0	76	47	0	47	4	51	0	51
North Leg														
Approach	293	4	297	25	322	26	348	205	1	206	17	223	29	252
Departure	235	3	238	20	258	33	291	162	1	163	14	177	30	207
Total	528	7	535	45	580	59	639	367	2	369	31	400	59	459
South Leg														
Approach	224	3	227	19	246	33	279	173	1	174	15	189	30	219
Departure	302	4	306	26	332	26	358	253	2	255	21	276	29	305
Total	526	7	533	45	578	59	637	426	3	429	36	465	59	524
East Leg														
Approach	142	2	144	12	156	0	156	144	1	145	12	157	0	157
Departure	122	2	124	10	134	0	134	107	0	107	9	116	0	116
Total	264	4	268	23	291	0	291	251	1	252	21	273	0	273
West Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches														
Approach	659	9	668	56	724	59	783	522	3	525	44	569	59	628
Departure	659	9	668	56	724	59	783	522	3	525	44	569	59	628
Total	1,318	18	1,336	113	1,449	118	1,567	1,044	6	1,050	88	1,138	118	1,256

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
3 Lake Gregory Drive/State Route 18														
NBL	0		0	0	0	0	0	0		0	0	0	0	0
NBT	0		0	0	0	0	0	0		0	0	0	0	0
NBR	0		0	0	0	0	0	0		0	0	0	0	0
SBL	205	2	207	17	224	26	250	125	1	126	11	137	29	166
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	93	1	94	8	102	0	102	128	1	129	11	140	0	140
EBL	81	1	82	7	89	0	89	77	1	78	7	85	0	85
EBT	308	3	311	26	337	17	354	190	2	192	16	208	20	228
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	256	3	259	22	281	22	303	376	3	379	32	411	20	431
WBR	142	1	143	12	155	33	188	97	1	98	8	106	30	136
North Leg														
Approach	298	3	301	25	326	26	352	253	2	255	21	276	29	305
Departure	223	2	225	19	244	33	277	174	2	176	15	191	30	221
Total	521	5	526	44	570	59	629	427	4	431	36	467	59	526
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	398	4	402	34	436	55	491	473	4	477	40	517	50	567
Departure	513	5	518	44	562	43	605	315	3	318	27	345	49	394
Total	911	9	920	77	997	98	1,095	788	7	795	67	862	99	961
West Leg														
Approach	389	4	393	33	426	17	443	267	3	270	23	293	20	313
Departure	349	4	353	30	383	22	405	504	4	508	43	551	20	571
Total	738	8	746	63	809	39	848	771	7	778	66	844	40	884
Total Approaches														
Approach	1,085	11	1,096	92	1,188	98	1,286	993	9	1,002	84	1,086	99	1,185
Departure	1,085	11	1,096	92	1,188	98	1,286	993	9	1,002	84	1,086	99	1,185
Total	2,170	22	2,192	185	2,377	196	2,573	1,986	18	2,004	169	2,173	198	2,371

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
4 Bear Springs Road/State Route 18														
NBL	3	0	3	0	3	0	3	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	1	0	1	0	1	0	1	2	0	2	0	2	0	2
SBL	19	0	19	2	21	17	38	13	0	13	1	14	20	34
SBT	1	0	1	0	1	0	1	0	0	0	0	0	0	0
SBR	42	0	42	4	46	0	46	17	0	17	1	18	0	18
EBL	32	0	32	3	35	0	35	15	0	15	1	16	0	16
EBT	639	5	644	54	698	43	741	340	3	343	29	372	49	421
EBR	2	0	2	0	2	0	2	0	0	0	0	0	0	0
WBL	5	0	5	0	5	0	5	2	0	2	0	2	0	2
WBT	462	4	466	39	505	55	560	532	5	537	45	582	50	632
WBR	20	0	20	2	22	22	44	11	0	11	1	12	20	32
North Leg														
Approach	62	0	62	5	67	17	84	30	0	30	3	33	20	53
Departure	52	0	52	4	56	22	78	26	0	26	2	28	20	48
Total	114	0	114	10	124	39	163	56	0	56	5	61	40	101
South Leg														
Approach	4	0	4	0	4	0	4	2	0	2	0	2	0	2
Departure	8	0	8	1	9	0	9	2	0	2	0	2	0	2
Total	12	0	12	1	13	0	13	4	0	4	0	4	0	4
East Leg														
Approach	487	4	491	41	532	77	609	545	5	550	46	596	70	666
Departure	659	5	664	56	720	60	780	355	3	358	30	388	69	457
Total	1,146	9	1,155	97	1,252	137	1,389	900	8	908	76	984	139	1,123
West Leg														
Approach	673	5	678	57	735	43	778	355	3	358	30	388	49	437
Departure	507	4	511	43	554	55	609	549	5	554	47	601	50	651
Total	1,180	9	1,189	100	1,289	98	1,387	904	8	912	77	989	99	1,088
Total Approaches														
Approach	1,226	9	1,235	104	1,339	137	1,476	932	8	940	79	1,019	139	1,158
Departure	1,226	9	1,235	104	1,339	137	1,476	932	8	940	79	1,019	139	1,158
Total	2,452	18	2,470	208	2,678	274	2,952	1,864	16	1,880	158	2,038	278	2,316

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour						Sunday Peak Hour							
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
5 Project Driveway/State Route 18														
NBL						0	0						0	0
NBT						0	0						0	0
NBR						0	0						0	0
SBL						144	144						130	130
SBT						0	0						0	0
SBR						77	77						70	70
EBL						60	60						68	68
EBT					720	0	720					388	0	388
EBR						0	0						0	0
WBL						0	0						0	0
WBT					532	0	532					596	0	596
WBR						111	111						127	127
North Leg														
Approach	0	0	0	0	0	221	221	0	0	0	0	0	200	200
Departure	0	0	0	0	0	171	171	0	0	0	0	0	195	195
Total	0	0	0	0	0	392	392	0	0	0	0	0	395	395
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	0	0	0	0	532	111	643	0	0	0	0	596	127	723
Departure	0	0	0	0	720	144	864	0	0	0	0	388	130	518
Total	0	0	0	0	1,252	255	1,507	0	0	0	0	984	257	1,241
West Leg														
Approach	0	0	0	0	720	60	780	0	0	0	0	388	68	456
Departure	0	0	0	0	532	77	609	0	0	0	0	596	70	666
Total	0	0	0	0	1,252	137	1,389	0	0	0	0	984	138	1,122
Total Approaches														
Approach	0	0	0	0	1,252	392	1,644	0	0	0	0	984	395	1,379
Departure	0	0	0	0	1,252	392	1,644	0	0	0	0	984	395	1,379
Total	0	0	0	0	2,505	784	3,289	0	0	0	0	1,969	790	2,759

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
6 Lake Forest Drive/Grass Valley Road														
NBL	7	0	7	1	8	13	21	2	0	2	0	2	12	14
NBT	236	2	238	20	258	13	271	165	1	166	14	180	12	192
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	226	1	227	19	246	10	256	269	2	271	23	294	12	306
SBR	3	0	3	0	3	0	3	4	0	4	0	4	0	4
EBL	1	0	1	0	1	0	1	2	0	2	0	2	0	2
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	9	0	9	1	10	10	20	4	0	4	0	4	12	16
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	229	1	230	19	249	10	259	273	2	275	23	298	12	310
Departure	237	2	239	20	259	13	272	167	1	168	14	182	12	194
Total	466	3	469	39	508	23	531	440	3	443	37	480	24	504
South Leg														
Approach	243	2	245	21	266	26	292	167	1	168	14	182	24	206
Departure	235	1	236	20	256	20	276	273	2	275	23	298	24	322
Total	478	3	481	41	522	46	568	440	3	443	37	480	48	528
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg														
Approach	10	0	10	1	11	10	21	6	0	6	1	7	12	19
Departure	10	0	10	1	11	13	24	6	0	6	1	7	12	19
Total	20	0	20	2	22	23	45	12	0	12	1	13	24	37
Total Approaches														
Approach	482	3	485	41	526	46	572	446	3	449	38	487	48	535
Departure	482	3	485	41	526	46	572	446	3	449	38	487	48	535
Total	964	6	970	82	1,052	92	1,144	892	6	898	76	974	96	1,070

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
7 State Route 189/Grass Valley Road														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	67	0	67	6	73	7	80	45	0	45	4	49	6	55
NBR	129	1	130	11	141	26	167	84	1	85	7	92	24	116
SBL	64	0	64	5	69	0	69	55	0	55	5	60	0	60
SBT	133	1	134	11	145	5	150	117	1	118	10	128	6	134
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	183	1	184	15	199	20	219	181	1	182	15	197	23	220
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	126	1	127	11	138	0	138	126	1	127	11	138	0	138
North Leg														
Approach	197	1	198	17	215	5	220	172	1	173	15	188	6	194
Departure	193	1	194	16	210	7	217	171	1	172	14	186	6	192
Total	390	2	392	33	425	12	437	343	2	345	29	374	12	386
South Leg														
Approach	196	1	197	17	214	33	247	129	1	130	11	141	30	171
Departure	316	2	318	27	345	25	370	298	2	300	25	325	29	354
Total	512	3	515	43	558	58	616	427	3	430	36	466	59	525
East Leg														
Approach	309	2	311	26	337	20	357	307	2	309	26	335	23	358
Departure	193	1	194	16	210	26	236	139	1	140	12	152	24	176
Total	502	3	505	43	548	46	594	446	3	449	38	487	47	534
West Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches														
Approach	702	4	706	59	765	58	823	608	4	612	52	664	59	723
Departure	702	4	706	59	765	58	823	608	4	612	52	664	59	723
Total	1,404	8	1,412	119	1,531	116	1,647	1,216	8	1,224	103	1,327	118	1,445

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
8 Daley Canyon Road/State Route 189														
NBL	166	1	167	14	181	33	214	100	1	101	9	110	30	140
NBT	248	1	249	21	270	55	325	136	1	137	12	149	50	199
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	187	1	188	16	204	43	247	183	1	184	15	199	49	248
SBR	42	0	42	4	46	0	46	36	0	36	3	39	0	39
EBL	176	1	177	15	192	0	192	141	1	142	12	154	0	154
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	159	1	160	13	173	26	199	171	1	172	14	186	29	215
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	229	1	230	19	249	43	292	219	1	220	19	239	49	288
Departure	424	2	426	36	462	55	517	277	2	279	23	302	50	352
Total	653	3	656	55	711	98	809	496	3	499	42	541	99	640
South Leg														
Approach	414	2	416	35	451	88	539	236	2	238	20	258	80	338
Departure	346	2	348	29	377	69	446	354	2	356	30	386	78	464
Total	760	4	764	64	828	157	985	590	4	594	50	644	158	802
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg														
Approach	335	2	337	28	365	26	391	312	2	314	26	340	29	369
Departure	208	1	209	18	227	33	260	136	1	137	12	149	30	179
Total	543	3	546	46	592	59	651	448	3	451	38	489	59	548
Total Approaches														
Approach	978	5	983	83	1,066	157	1,223	767	5	772	65	837	158	995
Departure	978	5	983	83	1,066	157	1,223	767	5	772	65	837	158	995
Total	1,956	10	1,966	166	2,132	314	2,446	1,534	10	1,544	130	1,674	316	1,990

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
9 Daley Canyon Road/Daley Canyon Access Road														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	275	2	277	23	300	88	388	112	1	113	10	123	80	203
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	114	1	115	10	125	0	125	94	0	94	8	102	0	102
SBT	232	1	233	20	253	68	321	258	1	259	22	281	78	359
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	1	0	1	0	1	0	1	15	0	15	1	16	0	16
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	146	1	147	12	159	0	159	123	1	124	10	134	0	134
North Leg														
Approach	346	2	348	29	377	68	445	352	1	353	30	383	78	461
Departure	421	3	424	36	460	88	548	235	2	237	20	257	80	337
Total	767	5	772	65	837	156	993	587	3	590	50	640	158	798
South Leg														
Approach	275	2	277	23	300	88	388	112	1	113	10	123	80	203
Departure	233	1	234	20	254	68	322	273	1	274	23	297	78	375
Total	508	3	511	43	554	156	710	385	2	387	33	420	158	578
East Leg														
Approach	147	1	148	12	160	0	160	138	1	139	12	151	0	151
Departure	114	1	115	10	125	0	125	94	0	94	8	102	0	102
Total	261	2	263	22	285	0	285	232	1	233	20	253	0	253
West Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches														
Approach	768	5	773	65	838	156	994	602	3	605	51	656	158	814
Departure	768	5	773	65	838	156	994	602	3	605	51	656	158	814
Total	1,536	10	1,546	130	1,676	312	1,988	1,204	6	1,210	102	1,312	316	1,628

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
10 Daley Canyon Road/State Route 18														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	4	0	4	0	4	0	4	2	0	2	0	2	0	2
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	228	2	230	19	249	68	317	270	3	273	23	296	78	374
EBL	268	2	270	23	293	88	381	106	1	107	9	116	80	196
EBT	391	3	394	33	427	55	482	248	2	250	21	271	50	321
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	263	2	265	22	287	43	330	275	3	278	23	301	49	350
WBR	1	0	1	0	1	0	1	5	0	5	0	5	0	5
North Leg														
Approach	232	2	234	20	254	68	322	272	3	275	23	298	78	376
Departure	269	2	271	23	294	88	382	111	1	112	9	121	80	201
Total	501	4	505	43	548	156	704	383	4	387	33	420	158	578
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	264	2	266	22	288	43	331	280	3	283	24	307	49	356
Departure	395	3	398	34	432	55	487	250	2	252	21	273	50	323
Total	659	5	664	56	720	98	818	530	5	535	45	580	99	679
West Leg														
Approach	659	5	664	56	720	143	863	354	3	357	30	387	130	517
Departure	491	4	495	42	537	111	648	545	6	551	46	597	127	724
Total	1,150	9	1,159	98	1,257	254	1,511	899	9	908	76	984	257	1,241
Total Approaches														
Approach	1,155	9	1,164	98	1,262	254	1,516	906	9	915	77	992	257	1,249
Departure	1,155	9	1,164	98	1,262	254	1,516	906	9	915	77	992	257	1,249
Total	2,310	18	2,328	196	2,524	508	3,032	1,812	18	1,830	154	1,984	514	2,498

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
11 Daley Canyon Access Road/State Route 18														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	119	1	120	10	130	0	130	118	2	120	10	130	0	130
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	6	0	6	1	7	0	7	4	0	4	0	4	0	4
EBL	6	0	6	1	7	0	7	10	0	10	1	11	0	11
EBT	390	4	394	33	427	55	482	244	3	247	21	268	50	318
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	273	3	276	23	299	43	342	277	4	281	24	305	49	354
WBR	164	2	166	14	180	0	180	103	1	104	9	113	0	113
North Leg														
Approach	125	1	126	11	137	0	137	122	2	124	10	134	0	134
Departure	170	2	172	14	186	0	186	113	1	114	10	124	0	124
Total	295	3	298	25	323	0	323	235	3	238	20	258	0	258
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	437	5	442	37	479	43	522	380	5	385	32	417	49	466
Departure	509	5	514	43	557	55	612	362	5	367	31	398	50	448
Total	946	10	956	81	1,037	98	1,135	742	10	752	63	815	99	914
West Leg														
Approach	396	4	400	34	434	55	489	254	3	257	22	279	50	329
Departure	279	3	282	24	306	43	349	281	4	285	24	309	49	358
Total	675	7	682	57	739	98	837	535	7	542	46	588	99	687
Total Approaches														
Approach	958	10	968	82	1,050	98	1,148	756	10	766	65	831	99	930
Departure	958	10	968	82	1,050	98	1,148	756	10	766	65	831	99	930
Total	1,916	20	1,936	163	2,099	196	2,295	1,512	20	1,532	129	1,661	198	1,859

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
12 Bay Road/State Route 189														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	79	0	79	7	86	0	86	60	0	60	5	65	0	65
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	170	0	170	14	184	17	201	182	1	183	15	198	20	218
EBL	191	1	192	16	208	22	230	119	0	119	10	129	20	149
EBT	247	1	248	21	269	33	302	148	1	149	13	162	30	192
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	176	1	177	15	192	26	218	129	1	130	11	141	29	170
WBR	91	0	91	8	99	0	99	37	0	37	3	40	0	40
North Leg														
Approach	249	0	249	21	270	17	287	242	1	243	20	263	20	283
Departure	282	1	283	24	307	22	329	156	0	156	13	169	20	189
Total	531	1	532	45	577	39	616	398	1	399	34	433	40	473
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	267	1	268	23	291	26	317	166	1	167	14	181	29	210
Departure	326	1	327	28	355	33	388	208	1	209	18	227	30	257
Total	593	2	595	50	645	59	704	374	2	376	32	408	59	467
West Leg														
Approach	438	2	440	37	477	55	532	267	1	268	23	291	50	341
Departure	346	1	347	29	376	43	419	311	2	313	26	339	49	388
Total	784	3	787	66	853	98	951	578	3	581	49	630	99	729
Total Approaches														
Approach	954	3	957	81	1,038	98	1,136	675	3	678	57	735	99	834
Departure	954	3	957	81	1,038	98	1,136	675	3	678	57	735	99	834
Total	1,908	6	1,914	161	2,075	196	2,271	1,350	6	1,356	114	1,470	198	1,668

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
13 Bay Road/Little Bear Road														
NBL	8	0	8	1	9	9	18	10	0	10	1	11	8	19
NBT	226	1	227	19	246	13	259	132	1	133	11	144	12	156
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	214	1	215	18	233	10	243	234	1	235	20	255	12	267
SBR	0	0	0	0	0	0	0	2	0	2	0	2	0	2
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	17	0	17	1	18	7	25	15	0	15	1	16	8	24
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg														
Approach	214	1	215	18	233	10	243	236	1	237	20	257	12	269
Departure	226	1	227	19	246	13	259	132	1	133	11	144	12	156
Total	440	2	442	37	479	23	502	368	2	370	31	401	24	425
South Leg														
Approach	234	1	235	20	255	22	277	142	1	143	12	155	20	175
Departure	231	1	232	20	252	17	269	249	1	250	21	271	20	291
Total	465	2	467	39	506	39	545	391	2	393	33	426	40	466
East Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg														
Approach	17	0	17	1	18	7	25	15	0	15	1	16	8	24
Departure	8	0	8	1	9	9	18	12	0	12	1	13	8	21
Total	25	0	25	2	27	16	43	27	0	27	2	29	16	45
Total Approaches														
Approach	465	2	467	39	506	39	545	393	2	395	33	428	40	468
Departure	465	2	467	39	506	39	545	393	2	395	33	428	40	468
Total	930	4	934	79	1,013	78	1,091	786	4	790	67	857	80	937

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
14 Rocky Point Road/State Route 189														
NBL	0		0	0	0	0	0	0	0	0	0	0	0	0
NBT	0		0	0	0	0	0	0	0	0	0	0	0	0
NBR	0		0	0	0	0	0	0	0	0	0	0	0	0
SBL	2		2	0	2	0	2	2	0	2	0	2	0	2
SBT	0		0	0	0	0	0	0	0	0	0	0	0	0
SBR	4		4	0	4	5	9	2	0	2	0	2	6	8
EBL	12		12	1	13	7	20	1	0	1	0	1	6	7
EBT	310		310	26	336	22	358	212	0	212	18	230	20	250
EBR	0		0	0	0	0	0	0	0	0	0	0	0	0
WBL	0		0	0	0	0	0	0	0	0	0	0	0	0
WBT	253		253	21	274	17	291	151	0	151	13	164	20	184
WBR	2		2	0	2	0	2	3	0	3	0	3	0	3
North Leg														
Approach	6	0	6	1	7	5	12	4	0	4	0	4	6	10
Departure	14	0	14	1	15	7	22	4	0	4	0	4	6	10
Total	20	0	20	2	22	12	34	8	0	8	1	9	12	21
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	255	0	255	21	276	17	293	154	0	154	13	167	20	187
Departure	312	0	312	26	338	22	360	214	0	214	18	232	20	252
Total	567	0	567	48	615	39	654	368	0	368	31	399	40	439
West Leg														
Approach	322	0	322	27	349	29	378	213	0	213	18	231	26	257
Departure	257	0	257	22	279	22	301	153	0	153	13	166	26	192
Total	579	0	579	49	628	51	679	366	0	366	31	397	52	449
Total Approaches														
Approach	583	0	583	49	632	51	683	371	0	371	31	402	52	454
Departure	583	0	583	49	632	51	683	371	0	371	31	402	52	454
Total	1,166	0	1,166	98	1,264	102	1,366	742	0	742	62	804	104	908

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour						Sunday Peak Hour							
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
15 Greenway Drive/State Route 189														
NBL	2		2	0	2	5	7	0	0	0	0	0	6	6
NBT	0		0	0	0	0	0	0	0	0	0	0	0	0
NBR	0		0	0	0	0	0	2	0	2	0	2	0	2
SBL	1		1	0	1	0	1	0	0	0	0	0	0	0
SBT	0		0	0	0	0	0	0	0	0	0	0	0	0
SBR	7		7	1	8	3	11	1	0	1	0	1	4	5
EBL	5		5	0	5	4	9	1	0	1	0	1	4	5
EBT	308		308	26	334	13	347	202	0	202	17	219	12	231
EBR	1		1	0	1	7	8	1	0	1	0	1	6	7
WBL	0		0	0	0	0	0	1	0	1	0	1	0	1
WBT	249		249	21	270	10	280	165	0	165	14	179	12	191
WBR	1		1	0	1	0	1	0	0	0	0	0	0	0
North Leg														
Approach	8	0	8	1	9	3	12	1	0	1	0	1	4	5
Departure	6	0	6	1	7	4	11	1	0	1	0	1	4	5
Total	14	0	14	1	15	7	22	2	0	2	0	2	8	10
South Leg														
Approach	2	0	2	0	2	5	7	2	0	2	0	2	6	8
Departure	1	0	1	0	1	7	8	2	0	2	0	2	6	8
Total	3	0	3	0	3	12	15	4	0	4	0	4	12	16
East Leg														
Approach	250	0	250	21	271	10	281	166	0	166	14	180	12	192
Departure	309	0	309	26	335	13	348	204	0	204	17	221	12	233
Total	559	0	559	47	606	23	629	370	0	370	31	401	24	425
West Leg														
Approach	314	0	314	26	340	24	364	204	0	204	17	221	22	243
Departure	258	0	258	22	280	18	298	166	0	166	14	180	22	202
Total	572	0	572	48	620	42	662	370	0	370	31	401	44	445
Total Approaches														
Approach	574	0	574	48	622	42	664	373	0	373	31	404	44	448
Departure	574	0	574	48	622	42	664	373	0	373	31	404	44	448
Total	1,148	0	1,148	97	1,245	84	1,329	746	0	746	63	809	88	897

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
16 State Route 173/Crest Estates Drive														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	236	1	237	20	257	11	268	163	1	164	14	178	10	188
NBR	3	0	3	0	3	11	14	64	0	64	5	69	10	79
SBL	2	0	2	0	2	0	2	1	0	1	0	1	0	1
SBT	133	1	134	11	145	9	154	111	1	112	9	121	10	131
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	9	9	48	0	48	4	52	10	62
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	3	0	3	0	3	0	3	25	0	25	2	27	0	27
North Leg														
Approach	135	1	136	11	147	9	156	112	1	113	10	123	10	133
Departure	239	1	240	20	260	11	271	188	1	189	16	205	10	215
Total	374	2	376	32	408	20	428	300	2	302	25	327	20	347
South Leg														
Approach	239	1	240	20	260	22	282	227	1	228	19	247	20	267
Departure	133	1	134	11	145	18	163	159	1	160	13	173	20	193
Total	372	2	374	31	405	40	445	386	2	388	33	421	40	461
East Leg														
Approach	3	0	3	0	3	9	12	73	0	73	6	79	10	89
Departure	5	0	5	0	5	11	16	65	0	65	5	70	10	80
Total	8	0	8	1	9	20	29	138	0	138	12	150	20	170
West Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches														
Approach	377	2	379	32	411	40	451	412	2	414	35	449	40	489
Departure	377	2	379	32	411	40	451	412	2	414	35	449	40	489
Total	754	4	758	64	822	80	902	824	4	828	70	898	80	978

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
17 State Route 173/State Route 18														
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	52	1	53	4	57	0	57	51	1	52	4	56	0	56
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	112	2	114	10	124	26	150	148	2	150	13	163	29	192
EBL	189	3	192	16	208	33	241	137	2	139	12	151	30	181
EBT	305	4	309	26	335	11	346	122	2	124	10	134	10	144
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	207	3	210	18	228	9	237	139	2	141	12	153	10	163
WBR	81	1	82	7	89	0	89	52	1	53	4	57	0	57
North Leg														
Approach	164	3	167	14	181	26	207	199	3	202	17	219	29	248
Departure	270	4	274	23	297	33	330	189	3	192	16	208	30	238
Total	434	7	441	37	478	59	537	388	6	394	33	427	59	486
South Leg														
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg														
Approach	288	4	292	25	317	9	326	191	3	194	16	210	10	220
Departure	357	5	362	30	392	11	403	173	3	176	15	191	10	201
Total	645	9	654	55	709	20	729	364	6	370	31	401	20	421
West Leg														
Approach	494	7	501	42	543	44	587	259	4	263	22	285	40	325
Departure	319	5	324	27	351	35	386	287	4	291	25	316	39	355
Total	813	12	825	69	894	79	973	546	8	554	47	601	79	680
Total Approaches														
Approach	946	14	960	81	1,041	79	1,120	649	10	659	55	714	79	793
Departure	946	14	960	81	1,041	79	1,120	649	10	659	55	714	79	793
Total	1,892	28	1,920	162	2,082	158	2,240	1,298	20	1,318	111	1,429	158	1,587

Table B-5 - Opening Year (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour						
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	OY 2,018 NP	Project Trips	Year 2,018 WP
18 Pine Avenue/State Route 18														
NBL	31	0	31	3	34	0	34	25	0	25	2	27	0	27
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	109	1	110	9	119	0	119	28	0	28	2	30	0	30
SBL	2	0	2	0	2	0	2	3	0	3	0	3	0	3
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	1	0	1	0	1	0	1	0	0	0	0	0	0	0
EBL	1	0	1	0	1	0	1	0	0	0	0	0	0	0
EBT	513	4	517	44	561	43	604	302	3	305	26	331	49	380
EBR	31	0	31	3	34	0	34	13	0	13	1	14	0	14
WBL	119	1	120	10	130	0	130	31	0	31	3	34	0	34
WBT	352	3	355	30	385	55	440	474	4	478	40	518	50	568
WBR	1	0	1	0	1	0	1	0	0	0	0	0	0	0
North Leg														
Approach	3	0	3	0	3	0	3	3	0	3	0	3	0	3
Departure	2	0	2	0	2	0	2	0	0	0	0	0	0	0
Total	5	0	5	0	5	0	5	3	0	3	0	3	0	3
South Leg														
Approach	140	1	141	12	153	0	153	53	0	53	4	57	0	57
Departure	150	1	151	13	164	0	164	44	0	44	4	48	0	48
Total	290	2	292	25	317	0	317	97	0	97	8	105	0	105
East Leg														
Approach	472	4	476	40	516	55	571	505	4	509	43	552	50	602
Departure	624	5	629	53	682	43	725	333	3	336	28	364	49	413
Total	1,096	9	1,105	93	1,198	98	1,296	838	7	845	71	916	99	1,015
West Leg														
Approach	545	4	549	46	595	43	638	315	3	318	27	345	49	394
Departure	384	3	387	33	420	55	475	499	4	503	42	545	50	595
Total	929	7	936	79	1,015	98	1,113	814	7	821	69	890	99	989
Total Approaches														
Approach	1,160	9	1,169	98	1,267	98	1,365	876	7	883	74	957	99	1,056
Departure	1,160	9	1,169	98	1,267	98	1,365	876	7	883	74	957	99	1,056
Total	2,320	18	2,338	197	2,535	196	2,731	1,752	14	1,766	149	1,915	198	2,113

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour										Sunday Peak Hour									
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP		
1. Crest Forest Drive/State Route 18																				
NBL	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NBT	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NBR	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SBL	27	0	27	2	29	0	29	9	38	38	0	38	3	41	0	41	10	51		
SBT	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SBR	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0		
EBL	1	0	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1		
EBT	368	5	373	31	404	82	486	9	495	229	2	231	19	250	64	314	10	324		
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WBT	310	4	314	26	340	22	362	11	373	513	5	518	44	562	16	578	10	588		
WBR	45	1	46	4	50	0	50	11	61	26	0	26	2	28	0	28	10	38		
North Leg																				
Approach	28	0	28	2	30	0	30	9	39	38	0	38	3	41	0	41	10	51		
Departure	46	1	47	4	51	0	51	11	62	27	0	27	2	29	0	29	10	39		
Total	74	1	75	6	81	0	81	20	101	65	0	65	5	70	0	70	20	90		
South Leg																				
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
East Leg																				
Approach	355	5	360	30	390	22	412	22	434	539	5	544	46	590	16	606	20	626		
Departure	395	5	400	34	434	82	516	18	534	267	2	269	23	292	64	356	20	376		
Total	750	10	760	64	824	104	928	40	968	806	7	813	68	881	80	961	40	1,001		
West Leg																				
Approach	369	5	374	31	405	82	487	9	496	230	2	232	20	252	64	316	10	326		
Departure	311	4	315	27	342	22	364	11	375	513	5	518	44	562	16	578	10	588		
Total	680	9	689	58	747	104	851	20	871	743	7	750	63	813	80	893	20	913		
Total Approaches																				
Approach	752	10	762	64	826	104	930	40	970	807	7	814	69	883	80	963	40	1,003		
Departure	752	10	762	64	826	104	930	40	970	807	7	814	69	883	80	963	40	1,003		
Total	1,504	20	1,524	128	1,652	208	1,860	80	1,940	1,614	14	1,628	137	1,765	160	1,925	80	2,005		

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
2 Lake Gregory Drive/State Route 189																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	166	2	168	14	182	1	183	33	216	115	1	116	10	126	2	128	30	158
NBR	58	1	59	5	64	18	82	0	82	58	0	58	5	63	0	63	0	63
SBL	64	1	65	5	70	0	70	0	70	49	0	49	4	53	0	53	0	53
SBT	229	3	232	20	252	3	255	26	281	156	1	157	13	170	2	172	29	201
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	73	1	74	6	80	7	87	0	87	97	1	98	8	106	0	106	0	106
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	69	1	70	6	76	0	76	0	76	47	0	47	4	51	0	51	0	51
North Leg																		
Approach	293	4	297	25	322	3	325	26	351	205	1	206	17	223	2	225	29	254
Departure	235	3	238	20	258	1	259	33	292	162	1	163	14	177	2	179	30	209
Total	528	7	535	45	580	4	584	59	643	367	2	369	31	400	4	404	59	463
South Leg																		
Approach	224	3	227	19	246	19	265	33	298	173	1	174	15	189	2	191	30	221
Departure	302	4	306	26	332	10	342	26	368	253	2	255	21	276	2	278	29	307
Total	526	7	533	45	578	29	607	59	666	426	3	429	36	465	4	469	59	528
East Leg																		
Approach	142	2	144	12	156	7	163	0	163	144	1	145	12	157	0	157	0	157
Departure	122	2	124	10	134	18	152	0	152	107	0	107	9	116	0	116	0	116
Total	264	4	268	23	291	25	316	0	316	251	1	252	21	273	0	273	0	273
West Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches																		
Approach	659	9	668	56	724	29	753	59	812	522	3	525	44	569	4	573	59	632
Departure	659	9	668	56	724	29	753	59	812	522	3	525	44	569	4	573	59	632
Total	1,318	18	1,336	113	1,449	58	1,507	118	1,625	1,044	6	1,050	88	1,138	8	1,146	118	1,264

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour								Sunday Peak Hour									
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
3 Lake Gregory Drive/State Route 18																		
NBL	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	205	2	207	17	224	3	227	26	253	125	1	126	11	137	2	139	29	168
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	93	1	94	8	102	7	109	0	109	128	1	129	11	140	0	140	0	140
EBL	81	1	82	7	89	18	107	0	107	77	1	78	7	85	0	85	0	85
EBT	308	3	311	26	337	64	401	17	418	190	2	192	16	208	64	272	20	292
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	256	3	259	22	281	15	296	22	318	376	3	379	32	411	16	427	20	447
WBR	142	1	143	12	155	1	156	33	189	97	1	98	8	106	2	108	30	138
North Leg																		
Approach	298	3	301	25	326	10	336	26	362	253	2	255	21	276	2	278	29	307
Departure	223	2	225	19	244	19	263	33	296	174	2	176	15	191	2	193	30	223
Total	521	5	526	44	570	29	599	59	658	427	4	431	36	467	4	471	59	530
South Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg																		
Approach	398	4	402	34	436	16	452	55	507	473	4	477	40	517	18	535	50	585
Departure	513	5	518	44	562	67	629	43	672	315	3	318	27	345	66	411	49	460
Total	911	9	920	77	997	83	1,080	98	1,178	788	7	795	67	862	84	946	99	1,045
West Leg																		
Approach	389	4	393	33	426	82	508	17	525	267	3	270	23	293	64	357	20	377
Departure	349	4	353	30	383	22	405	22	427	504	4	508	43	551	16	567	20	587
Total	738	8	746	63	809	104	913	39	952	771	7	778	66	844	80	924	40	964
Total Approaches																		
Approach	1,085	11	1,096	92	1,188	108	1,296	98	1,394	993	9	1,002	84	1,086	84	1,170	99	1,269
Departure	1,085	11	1,096	92	1,188	108	1,296	98	1,394	993	9	1,002	84	1,086	84	1,170	99	1,269
Total	2,170	22	2,192	185	2,377	216	2,593	196	2,789	1,986	18	2,004	169	2,173	168	2,341	198	2,539

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour								Sunday Peak Hour									
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
4 Bear Springs Road/State Route 18																		
NBL	3	0	3	0	3	0	3	0	3	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	1	0	1	0	1	0	1	0	1	2	0	2	0	2	0	2	0	2
SBL	19	0	19	2	21	2	23	17	40	13	0	13	1	14	2	16	20	36
SBT	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
SBR	42	0	42	4	46	0	46	0	46	17	0	17	1	18	0	18	0	18
EBL	32	0	32	3	35	0	35	0	35	15	0	15	1	16	0	16	0	16
EBT	639	5	644	54	698	66	764	43	807	340	3	343	29	372	66	438	49	487
EBR	2	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0	0
WBL	5	0	5	0	5	0	5	0	5	2	0	2	0	2	0	2	0	2
WBT	462	4	466	39	505	17	522	55	577	532	5	537	45	582	17	599	50	649
WBR	20	0	20	2	22	0	22	22	44	11	0	11	1	12	0	12	20	32
North Leg																		
Approach	62	0	62	5	67	2	69	17	86	30	0	30	3	33	2	35	20	55
Departure	52	0	52	4	56	0	56	22	78	26	0	26	2	28	0	28	20	48
Total	114	0	114	10	124	2	126	39	165	56	0	56	5	61	2	63	40	103
South Leg																		
Approach	4	0	4	0	4	0	4	0	4	2	0	2	0	2	0	2	0	2
Departure	8	0	8	1	9	0	9	0	9	2	0	2	0	2	0	2	0	2
Total	12	0	12	1	13	0	13	0	13	4	0	4	0	4	0	4	0	4
East Leg																		
Approach	487	4	491	41	532	17	549	77	626	545	5	550	46	596	17	613	70	683
Departure	659	5	664	56	720	68	788	60	848	355	3	358	30	388	68	456	69	525
Total	1,146	9	1,155	97	1,252	85	1,337	137	1,474	900	8	908	76	984	85	1,069	139	1,208
West Leg																		
Approach	673	5	678	57	735	66	801	43	844	355	3	358	30	388	66	454	49	503
Departure	507	4	511	43	554	17	571	55	626	549	5	554	47	601	17	618	50	668
Total	1,180	9	1,189	100	1,289	83	1,372	98	1,470	904	8	912	77	989	83	1,072	99	1,171
Total Approaches																		
Approach	1,226	9	1,235	104	1,339	85	1,424	137	1,561	932	8	940	79	1,019	85	1,104	139	1,243
Departure	1,226	9	1,235	104	1,339	85	1,424	137	1,561	932	8	940	79	1,019	85	1,104	139	1,243
Total	2,452	18	2,470	208	2,678	170	2,848	274	3,122	1,864	16	1,880	158	2,038	170	2,208	278	2,486

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour							Sunday Peak Hour										
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
5 Project Driveway/State Route 18																		
NBL								0	0								0	0
NBT								0	0								0	0
NBR								0	0								0	0
SBL								144	144								130	130
SBT								0	0								0	0
SBR								77	77								70	70
EBL								60	60								68	68
EBT							788	0	788						456	0	456	0
EBR								0	0								0	0
WBL								0	0								0	0
WBT							549	0	549							613	0	613
WBR								111	111								127	127
North Leg																		
Approach	0	0	0	0	0	0	0	221	221	0	0	0	0	0	0	0	200	200
Departure	0	0	0	0	0	0	0	171	171	0	0	0	0	0	0	0	195	195
Total	0	0	0	0	0	0	0	392	392	0	0	0	0	0	0	0	395	395
South Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg																		
Approach	0	0	0	0	0	0	549	111	660	0	0	0	0	0	0	613	127	740
Departure	0	0	0	0	0	0	788	144	932	0	0	0	0	0	0	456	130	586
Total	0	0	0	0	0	0	1,337	255	1,592	0	0	0	0	0	0	1,069	257	1,326
West Leg																		
Approach	0	0	0	0	0	0	788	60	848	0	0	0	0	0	0	456	68	524
Departure	0	0	0	0	0	0	549	77	626	0	0	0	0	0	0	613	70	683
Total	0	0	0	0	0	0	1,337	137	1,474	0	0	0	0	0	0	1,069	138	1,207
Total Approaches																		
Approach	0	0	0	0	0	0	1,337	392	1,729	0	0	0	0	0	0	1,069	395	1,464
Departure	0	0	0	0	0	0	1,337	392	1,729	0	0	0	0	0	0	1,069	395	1,464
Total	0	0	0	0	0	0	2,675	784	3,459	0	0	0	0	0	0	2,139	790	2,929

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
6 Lake Forest Drive/Grass Valley Road																		
NBL	7	0	7	1	8	0	8	13	21	2	0	2	0	2	0	2	12	14
NBT	236	2	238	20	258	7	265	13	278	165	1	166	14	180	12	192	12	204
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	226	1	227	19	246	6	252	10	262	269	2	271	23	294	14	308	12	320
SBR	3	0	3	0	3	0	3	0	3	4	0	4	0	4	0	4	0	4
EBL	1	0	1	0	1	0	1	0	1	2	0	2	0	2	0	2	0	2
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	9	0	9	1	10	0	10	10	20	4	0	4	0	4	0	4	12	16
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg																		
Approach	229	1	230	19	249	6	255	10	265	273	2	275	23	298	14	312	12	324
Departure	237	2	239	20	259	7	266	13	279	167	1	168	14	182	12	194	12	206
Total	466	3	469	39	508	13	521	23	544	440	3	443	37	480	26	506	24	530
South Leg																		
Approach	243	2	245	21	266	7	273	26	299	167	1	168	14	182	12	194	24	218
Departure	235	1	236	20	256	6	262	20	282	273	2	275	23	298	14	312	24	336
Total	478	3	481	41	522	13	535	46	581	440	3	443	37	480	26	506	48	554
East Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg																		
Approach	10	0	10	1	11	0	11	10	21	6	0	6	1	7	0	7	12	19
Departure	10	0	10	1	11	0	11	13	24	6	0	6	1	7	0	7	12	19
Total	20	0	20	2	22	0	22	23	45	12	0	12	1	13	0	13	24	37
Total Approaches																		
Approach	482	3	485	41	526	13	539	46	585	446	3	449	38	487	26	513	48	561
Departure	482	3	485	41	526	13	539	46	585	446	3	449	38	487	26	513	48	561
Total	964	6	970	82	1,052	26	1,078	92	1,170	892	6	898	76	974	52	1,026	96	1,122

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
7 State Route 189/Grass Valley Road																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	67	0	67	6	73	7	80	7	87	45	0	45	4	49	0	49	6	55
NBR	129	1	130	11	141	5	146	26	172	84	1	85	7	92	9	101	24	125
SBL	64	0	64	5	69	2	71	0	71	55	0	55	5	60	3	63	0	63
SBT	133	1	134	11	145	5	150	5	155	117	1	118	10	128	1	129	6	135
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	183	1	184	15	199	4	203	20	223	181	1	182	15	197	10	207	23	230
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	126	1	127	11	138	1	139	0	139	126	1	127	11	138	3	141	0	141
North Leg																		
Approach	197	1	198	17	215	7	222	5	227	172	1	173	15	188	4	192	6	198
Departure	193	1	194	16	210	8	218	7	225	171	1	172	14	186	3	189	6	195
Total	390	2	392	33	425	15	440	12	452	343	2	345	29	374	7	381	12	393
South Leg																		
Approach	196	1	197	17	214	12	226	33	259	129	1	130	11	141	9	150	30	180
Departure	316	2	318	27	345	9	354	25	379	298	2	300	25	325	11	336	29	365
Total	512	3	515	43	558	21	579	58	637	427	3	430	36	466	20	486	59	545
East Leg																		
Approach	309	2	311	26	337	5	342	20	362	307	2	309	26	335	13	348	23	371
Departure	193	1	194	16	210	7	217	26	243	139	1	140	12	152	12	164	24	188
Total	502	3	505	43	548	12	560	46	606	446	3	449	38	487	25	512	47	559
West Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches																		
Approach	702	4	706	59	765	24	789	58	847	608	4	612	52	664	26	690	59	749
Departure	702	4	706	59	765	24	789	58	847	608	4	612	52	664	26	690	59	749
Total	1,404	8	1,412	119	1,531	48	1,579	116	1,695	1,216	8	1,224	103	1,327	52	1,379	118	1,497

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
8 Daley Canyon Road/State Route 189																		
NBL	166	1	167	14	181	12	193	33	226	100	1	101	9	110	9	119	30	149
NBT	248	1	249	21	270	8	278	55	333	136	1	137	12	149	7	156	50	206
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	187	1	188	16	204	7	211	43	254	183	1	184	15	199	6	205	49	254
SBR	42	0	42	4	46	0	46	0	46	36	0	36	3	39	0	39	0	39
EBL	176	1	177	15	192	0	192	0	192	141	1	142	12	154	0	154	0	154
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	159	1	160	13	173	9	182	26	208	171	1	172	14	186	11	197	29	226
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg																		
Approach	229	1	230	19	249	7	256	43	299	219	1	220	19	239	6	245	49	294
Departure	424	2	426	36	462	8	470	55	525	277	2	279	23	302	7	309	50	359
Total	653	3	656	55	711	15	726	98	824	496	3	499	42	541	13	554	99	653
South Leg																		
Approach	414	2	416	35	451	20	471	88	559	236	2	238	20	258	16	274	80	354
Departure	346	2	348	29	377	16	393	69	462	354	2	356	30	386	17	403	78	481
Total	760	4	764	64	828	36	864	157	1,021	590	4	594	50	644	33	677	158	835
East Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg																		
Approach	335	2	337	28	365	9	374	26	400	312	2	314	26	340	11	351	29	380
Departure	208	1	209	18	227	12	239	33	272	136	1	137	12	149	9	158	30	188
Total	543	3	546	46	592	21	613	59	672	448	3	451	38	489	20	509	59	568
Total Approaches																		
Approach	978	5	983	83	1,066	36	1,102	157	1,259	767	5	772	65	837	33	870	158	1,028
Departure	978	5	983	83	1,066	36	1,102	157	1,259	767	5	772	65	837	33	870	158	1,028
Total	1,956	10	1,966	166	2,132	72	2,204	314	2,518	1,534	10	1,544	130	1,674	66	1,740	316	2,056

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
9 Daley Canyon Road/Daley Canyon Access Road																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	275	2	277	23	300	20	320	88	408	112	1	113	10	123	17	140	80	220
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	114	1	115	10	125	0	125	0	125	94	0	94	8	102	0	102	0	102
SBT	232	1	233	20	253	17	270	68	338	258	1	259	22	281	17	298	78	376
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	1	0	1	0	1	0	1	0	1	15	0	15	1	16	0	16	0	16
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	146	1	147	12	159	0	159	0	159	123	1	124	10	134	0	134	0	134
North Leg																		
Approach	346	2	348	29	377	17	394	68	462	352	1	353	30	383	17	400	78	478
Departure	421	3	424	36	460	20	480	88	568	235	2	237	20	257	17	274	80	354
Total	767	5	772	65	837	37	874	156	1,030	587	3	590	50	640	34	674	158	832
South Leg																		
Approach	275	2	277	23	300	20	320	88	408	112	1	113	10	123	17	140	80	220
Departure	233	1	234	20	254	17	271	68	339	273	1	274	23	297	17	314	78	392
Total	508	3	511	43	554	37	591	156	747	385	2	387	33	420	34	454	158	612
East Leg																		
Approach	147	1	148	12	160	0	160	0	160	138	1	139	12	151	0	151	0	151
Departure	114	1	115	10	125	0	125	0	125	94	0	94	8	102	0	102	0	102
Total	261	2	263	22	285	0	285	0	285	232	1	233	20	253	0	253	0	253
West Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches																		
Approach	768	5	773	65	838	37	875	156	1,031	602	3	605	51	656	34	690	158	848
Departure	768	5	773	65	838	37	875	156	1,031	602	3	605	51	656	34	690	158	848
Total	1,536	10	1,546	130	1,676	74	1,750	312	2,062	1,204	6	1,210	102	1,312	68	1,380	316	1,696

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour								Sunday Peak Hour									
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
10 Daley Canyon Road/State Route 18																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	4	0	4	0	4	8	12	0	12	2	0	2	0	2	8	10	0	10
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	228	2	230	19	249	9	258	68	326	270	3	273	23	296	9	305	78	383
EBL	268	2	270	23	293	10	303	88	391	106	1	107	9	116	11	127	80	207
EBT	391	3	394	33	427	58	485	55	540	248	2	250	21	271	58	329	50	379
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	263	2	265	22	287	9	296	43	339	275	3	278	23	301	9	310	49	359
WBR	1	0	1	0	1	11	12	0	12	5	0	5	0	5	6	11	0	11
North Leg																		
Approach	232	2	234	20	254	17	271	68	339	272	3	275	23	298	17	315	78	393
Departure	269	2	271	23	294	21	315	88	403	111	1	112	9	121	17	138	80	218
Total	501	4	505	43	548	38	586	156	742	383	4	387	33	420	34	454	158	612
South Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg																		
Approach	264	2	266	22	288	20	308	43	351	280	3	283	24	307	15	322	49	371
Departure	395	3	398	34	432	66	498	55	553	250	2	252	21	273	66	339	50	389
Total	659	5	664	56	720	86	806	98	904	530	5	535	45	580	81	661	99	760
West Leg																		
Approach	659	5	664	56	720	68	788	143	931	354	3	357	30	387	69	456	130	586
Departure	491	4	495	42	537	18	555	111	666	545	6	551	46	597	18	615	127	742
Total	1,150	9	1,159	98	1,257	86	1,343	254	1,597	899	9	908	76	984	87	1,071	257	1,328
Total Approaches																		
Approach	1,155	9	1,164	98	1,262	105	1,367	254	1,621	906	9	915	77	992	101	1,093	257	1,350
Departure	1,155	9	1,164	98	1,262	105	1,367	254	1,621	906	9	915	77	992	101	1,093	257	1,350
Total	2,310	18	2,328	196	2,524	210	2,734	508	3,242	1,812	18	1,830	154	1,984	202	2,186	514	2,700

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
11 Daley Canyon Access Road/State Route 18																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	119	1	120	10	130	0	130	0	130	118	2	120	10	130	0	130	0	130
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	6	0	6	1	7	0	7	0	7	4	0	4	0	4	0	4	0	4
EBL	6	0	6	1	7	0	7	0	7	10	0	10	1	11	0	11	0	11
EBT	390	4	394	33	427	62	489	55	544	244	3	247	21	268	66	334	50	384
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	273	3	276	23	299	13	312	43	355	277	4	281	24	305	15	320	49	369
WBR	164	2	166	14	180	0	180	0	180	103	1	104	9	113	0	113	0	113
North Leg																		
Approach	125	1	126	11	137	0	137	0	137	122	2	124	10	134	0	134	0	134
Departure	170	2	172	14	186	0	186	0	186	113	1	114	10	124	0	124	0	124
Total	295	3	298	25	323	0	323	0	323	235	3	238	20	258	0	258	0	258
South Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg																		
Approach	437	5	442	37	479	13	492	43	535	380	5	385	32	417	15	432	49	481
Departure	509	5	514	43	557	62	619	55	674	362	5	367	31	398	66	464	50	514
Total	946	10	956	81	1,037	75	1,112	98	1,210	742	10	752	63	815	81	896	99	995
West Leg																		
Approach	396	4	400	34	434	62	496	55	551	254	3	257	22	279	66	345	50	395
Departure	279	3	282	24	306	13	319	43	362	281	4	285	24	309	15	324	49	373
Total	675	7	682	57	739	75	814	98	912	535	7	542	46	588	81	669	99	768
Total Approaches																		
Approach	958	10	968	82	1,050	75	1,125	98	1,223	756	10	766	65	831	81	912	99	1,011
Departure	958	10	968	82	1,050	75	1,125	98	1,223	756	10	766	65	831	81	912	99	1,011
Total	1,916	20	1,936	163	2,099	150	2,249	196	2,445	1,512	20	1,532	129	1,661	162	1,823	198	2,021

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
12 Bay Road/State Route 189																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	79	0	79	7	86	0	86	0	86	60	0	60	5	65	0	65	0	65
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	170	0	170	14	184	0	184	17	201	182	1	183	15	198	0	198	20	218
EBL	191	1	192	16	208	0	208	22	230	119	0	119	10	129	0	129	20	149
EBT	247	1	248	21	269	8	277	33	310	148	1	149	13	162	7	169	30	199
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	176	1	177	15	192	7	199	26	225	129	1	130	11	141	6	147	29	176
WBR	91	0	91	8	99	0	99	0	99	37	0	37	3	40	0	40	0	40
North Leg																		
Approach	249	0	249	21	270	0	270	17	287	242	1	243	20	263	0	263	20	283
Departure	282	1	283	24	307	0	307	22	329	156	0	156	13	169	0	169	20	189
Total	531	1	532	45	577	0	577	39	616	398	1	399	34	433	0	433	40	473
South Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg																		
Approach	267	1	268	23	291	7	298	26	324	166	1	167	14	181	6	187	29	216
Departure	326	1	327	28	355	8	363	33	396	208	1	209	18	227	7	234	30	264
Total	593	2	595	50	645	15	660	59	719	374	2	376	32	408	13	421	59	480
West Leg																		
Approach	438	2	440	37	477	8	485	55	540	267	1	268	23	291	7	298	50	348
Departure	346	1	347	29	376	7	383	43	426	311	2	313	26	339	6	345	49	394
Total	784	3	787	66	853	15	868	98	966	578	3	581	49	630	13	643	99	742
Total Approaches																		
Approach	954	3	957	81	1,038	15	1,053	98	1,151	675	3	678	57	735	13	748	99	847
Departure	954	3	957	81	1,038	15	1,053	98	1,151	675	3	678	57	735	13	748	99	847
Total	1,908	6	1,914	161	2,075	30	2,105	196	2,301	1,350	6	1,356	114	1,470	26	1,496	198	1,694

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
13 Bay Road/Little Bear Road																		
NBL	8	0	8	1	9	0	9	9	18	10	0	10	1	11	0	11	8	19
NBT	226	1	227	19	246	0	246	13	259	132	1	133	11	144	0	144	12	156
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBT	214	1	215	18	233	0	233	10	243	234	1	235	20	255	0	255	12	267
SBR	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	0	2
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	17	0	17	1	18	0	18	7	25	15	0	15	1	16	0	16	8	24
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Leg																		
Approach	214	1	215	18	233	0	233	10	243	236	1	237	20	257	0	257	12	269
Departure	226	1	227	19	246	0	246	13	259	132	1	133	11	144	0	144	12	156
Total	440	2	442	37	479	0	479	23	502	368	2	370	31	401	0	401	24	425
South Leg																		
Approach	234	1	235	20	255	0	255	22	277	142	1	143	12	155	0	155	20	175
Departure	231	1	232	20	252	0	252	17	269	249	1	250	21	271	0	271	20	291
Total	465	2	467	39	506	0	506	39	545	391	2	393	33	426	0	426	40	466
East Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Leg																		
Approach	17	0	17	1	18	0	18	7	25	15	0	15	1	16	0	16	8	24
Departure	8	0	8	1	9	0	9	9	18	12	0	12	1	13	0	13	8	21
Total	25	0	25	2	27	0	27	16	43	27	0	27	2	29	0	29	16	45
Total Approaches																		
Approach	465	2	467	39	506	0	506	39	545	393	2	395	33	428	0	428	40	468
Departure	465	2	467	39	506	0	506	39	545	393	2	395	33	428	0	428	40	468
Total	930	4	934	79	1,013	0	1,013	78	1,091	786	4	790	67	857	0	857	80	937

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour								Sunday Peak Hour									
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
14 Rocky Point Road/State Route 189																		
NBL	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0
NBT	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0
NBR	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0
SBL	2		2		2	0	2	0	2	2	0	2		2	0	2	0	2
SBT	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0
SBR	4		4		4	0	4	5	9	2	0	2		2	0	2	6	8
EBL	12		12	1	13	0	13	7	20	1	0	1		1	0	1	6	7
EBT	310		310	26	336	8	344	22	366	212	0	212	18	230	7	237	20	257
EBR	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0
WBL	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0
WBT	253		253	21	274	8	282	17	299	151	0	151	13	164	7	171	20	191
WBR	2		2	0	2	0	2	0	2	3	0	3	0	3	0	3	0	3
North Leg																		
Approach	6	0	6	1	7	0	7	5	12	4	0	4	0	4	0	4	6	10
Departure	14	0	14	1	15	0	15	7	22	4	0	4	0	4	0	4	6	10
Total	20	0	20	2	22	0	22	12	34	8	0	8	1	9	0	9	12	21
South Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg																		
Approach	255	0	255	21	276	8	284	17	301	154	0	154	13	167	7	174	20	194
Departure	312	0	312	26	338	8	346	22	368	214	0	214	18	232	7	239	20	259
Total	567	0	567	48	615	16	631	39	670	368	0	368	31	399	14	413	40	453
West Leg																		
Approach	322	0	322	27	349	8	357	29	386	213	0	213	18	231	7	238	26	264
Departure	257	0	257	22	279	8	287	22	309	153	0	153	13	166	7	173	26	199
Total	579	0	579	49	628	16	644	51	695	366	0	366	31	397	14	411	52	463
Total Approaches																		
Approach	583	0	583	49	632	16	648	51	699	371	0	371	31	402	14	416	52	468
Departure	583	0	583	49	632	16	648	51	699	371	0	371	31	402	14	416	52	468
Total	1,166	0	1,166	98	1,264	32	1,296	102	1,398	742	0	742	62	804	28	832	104	936

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour								Sunday Peak Hour									
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
15 Greenway Drive/State Route 189																		
NBL	2		2	0	2	0	2	5	7	0	0	0	0	0	0	0	6	6
NBT	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0		0	0	0	0	0	0	0	2	0	2	0	2	0	2	0	2
SBL	1		1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
SBT	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	7		7	1	8	0	8	3	11	1	0	1	0	1	0	1	4	5
EBL	5		5	0	5	0	5	4	9	1	0	1	0	1	0	1	4	5
EBT	308		308	26	334	8	342	13	355	202	0	202	17	219	7	226	12	238
EBR	1		1	0	1	0	1	7	8	1	0	1	0	1	0	1	6	7
WBL	0		0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1
WBT	249		249	21	270	8	278	10	288	165	0	165	14	179	7	186	12	198
WBR	1		1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
North Leg																		
Approach	8	0	8	1	9	0	9	3	12	1	0	1	0	1	0	1	4	5
Departure	6	0	6	1	7	0	7	4	11	1	0	1	0	1	0	1	4	5
Total	14	0	14	1	15	0	15	7	22	2	0	2	0	2	0	2	8	10
South Leg																		
Approach	2	0	2	0	2	0	2	5	7	2	0	2	0	2	0	2	6	8
Departure	1	0	1	0	1	0	1	7	8	2	0	2	0	2	0	2	6	8
Total	3	0	3	0	3	0	3	12	15	4	0	4	0	4	0	4	12	16
East Leg																		
Approach	250	0	250	21	271	8	279	10	289	166	0	166	14	180	7	187	12	199
Departure	309	0	309	26	335	8	343	13	356	204	0	204	17	221	7	228	12	240
Total	559	0	559	47	606	16	622	23	645	370	0	370	31	401	14	415	24	439
West Leg																		
Approach	314	0	314	26	340	8	348	24	372	204	0	204	17	221	7	228	22	250
Departure	258	0	258	22	280	8	288	18	306	166	0	166	14	180	7	187	22	209
Total	572	0	572	48	620	16	636	42	678	370	0	370	31	401	14	415	44	459
Total Approaches																		
Approach	574	0	574	48	622	16	638	42	680	373	0	373	31	404	14	418	44	462
Departure	574	0	574	48	622	16	638	42	680	373	0	373	31	404	14	418	44	462
Total	1,148	0	1,148	97	1,245	32	1,277	84	1,361	746	0	746	63	809	28	837	88	925

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
16 State Route 173/Crest Estates Drive																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	236	1	237	20	257	15	272	11	283	163	1	164	14	178	14	192	10	202
NBR	3	0	3	0	3	0	3	11	14	64	0	64	5	69	0	69	10	79
SBL	2	0	2	0	2	0	2	0	2	1	0	1	0	1	0	1	0	1
SBT	133	1	134	11	145	21	166	9	175	111	1	112	9	121	20	141	10	151
SBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	9	9	48	0	48	4	52	0	52	10	62
WBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBR	3	0	3	0	3	0	3	0	3	25	0	25	2	27	0	27	0	27
North Leg																		
Approach	135	1	136	11	147	21	168	9	177	112	1	113	10	123	20	143	10	153
Departure	239	1	240	20	260	15	275	11	286	188	1	189	16	205	14	219	10	229
Total	374	2	376	32	408	36	444	20	464	300	2	302	25	327	34	361	20	381
South Leg																		
Approach	239	1	240	20	260	15	275	22	297	227	1	228	19	247	14	261	20	281
Departure	133	1	134	11	145	21	166	18	184	159	1	160	13	173	20	193	20	213
Total	372	2	374	31	405	36	441	40	481	386	2	388	33	421	34	455	40	495
East Leg																		
Approach	3	0	3	0	3	0	3	9	12	73	0	73	6	79	0	79	10	89
Departure	5	0	5	0	5	0	5	11	16	65	0	65	5	70	0	70	10	80
Total	8	0	8	1	9	0	9	20	29	138	0	138	12	150	0	150	20	170
West Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches																		
Approach	377	2	379	32	411	36	447	40	487	412	2	414	35	449	34	483	40	523
Departure	377	2	379	32	411	36	447	40	487	412	2	414	35	449	34	483	40	523
Total	754	4	758	64	822	72	894	80	974	824	4	828	70	898	68	966	80	1,046

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
17 State Route 173/State Route 18																		
NBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBL	52	1	53	4	57	21	78	0	78	51	1	52	4	56	20	76	0	76
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	112	2	114	10	124	1	125	26	151	148	2	150	13	163	1	164	29	193
EBL	189	3	192	16	208	1	209	33	242	137	2	139	12	151	1	152	30	182
EBT	305	4	309	26	335	66	401	11	412	122	2	124	10	134	65	199	10	209
EBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBT	207	3	210	18	228	19	247	9	256	139	2	141	12	153	14	167	10	177
WBR	81	1	82	7	89	15	104	0	104	52	1	53	4	57	13	70	0	70
North Leg																		
Approach	164	3	167	14	181	22	203	26	229	199	3	202	17	219	21	240	29	269
Departure	270	4	274	23	297	16	313	33	346	189	3	192	16	208	14	222	30	252
Total	434	7	441	37	478	38	516	59	575	388	6	394	33	427	35	462	59	521
South Leg																		
Approach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
East Leg																		
Approach	288	4	292	25	317	34	351	9	360	191	3	194	16	210	27	237	10	247
Departure	357	5	362	30	392	87	479	11	490	173	3	176	15	191	85	276	10	286
Total	645	9	654	55	709	121	830	20	850	364	6	370	31	401	112	513	20	533
West Leg																		
Approach	494	7	501	42	543	67	610	44	654	259	4	263	22	285	66	351	40	391
Departure	319	5	324	27	351	20	371	35	406	287	4	291	25	316	15	331	39	370
Total	813	12	825	69	894	87	981	79	1,060	546	8	554	47	601	81	682	79	761
Total Approaches																		
Approach	946	14	960	81	1,041	123	1,164	79	1,243	649	10	659	55	714	114	828	79	907
Departure	946	14	960	81	1,041	123	1,164	79	1,243	649	10	659	55	714	114	828	79	907
Total	1,892	28	1,920	162	2,082	246	2,328	158	2,486	1,298	20	1,318	111	1,429	228	1,657	158	1,815

Table B-6 - Cumulative (2018) Peak Hour Volume Summary

	Saturday Peak Hour									Sunday Peak Hour								
	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP	Exist Volumes	Growth	Year 2,018 Background	Seasonal Adjustment	Year 2,018 With Adj.	Cumulative Project Trips	Cumul. NP	Project Trips	Cumul. WP
18 Pine Avenue/State Route 18																		
NBL	31	0	31	3	34	0	34	0	34	25	0	25	2	27	0	27	0	27
NBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBR	109	1	110	9	119	0	119	0	119	28	0	28	2	30	0	30	0	30
SBL	2	0	2	0	2	0	2	0	2	3	0	3	0	3	0	3	0	3
SBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
EBL	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
EBT	513	4	517	44	561	12	573	43	616	302	3	305	26	331	12	343	49	392
EBR	31	0	31	3	34	0	34	0	34	13	0	13	1	14	0	14	0	14
WBL	119	1	120	10	130	0	130	0	130	31	0	31	3	34	0	34	0	34
WBT	352	3	355	30	385	10	395	55	450	474	4	478	40	518	10	528	50	578
WBR	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
North Leg																		
Approach	3	0	3	0	3	0	3	0	3	3	0	3	0	3	0	3	0	3
Departure	2	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0	0
Total	5	0	5	0	5	0	5	0	5	3	0	3	0	3	0	3	0	3
South Leg																		
Approach	140	1	141	12	153	0	153	0	153	53	0	53	4	57	0	57	0	57
Departure	150	1	151	13	164	0	164	0	164	44	0	44	4	48	0	48	0	48
Total	290	2	292	25	317	0	317	0	317	97	0	97	8	105	0	105	0	105
East Leg																		
Approach	472	4	476	40	516	10	526	55	581	505	4	509	43	552	10	562	50	612
Departure	624	5	629	53	682	12	694	43	737	333	3	336	28	364	12	376	49	425
Total	1,096	9	1,105	93	1,198	22	1,220	98	1,318	838	7	845	71	916	22	938	99	1,037
West Leg																		
Approach	545	4	549	46	595	12	607	43	650	315	3	318	27	345	12	357	49	406
Departure	384	3	387	33	420	10	430	55	485	499	4	503	42	545	10	555	50	605
Total	929	7	936	79	1,015	22	1,037	98	1,135	814	7	821	69	890	22	912	99	1,011
Total Approaches																		
Approach	1,160	9	1,169	98	1,267	22	1,289	98	1,387	876	7	883	74	957	22	979	99	1,078
Departure	1,160	9	1,169	98	1,267	22	1,289	98	1,387	876	7	883	74	957	22	979	99	1,078
Total	2,320	18	2,338	197	2,535	44	2,579	196	2,775	1,752	14	1,766	149	1,915	44	1,959	198	2,157

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
1. Crest Forest Drive/State Route 18										
NBL	0		0	0	0	0		0	0	0
NBT	0		0	0	0	0		0	0	0
NBR	0		0	0	0	0		0	0	0
SBL	27	9	36	3	39	38	8	46	4	50
SBT	0		0	0	0	0		0	0	0
SBR	1	0	1	0	1	0		0	0	0
EBL	1	0	1	0	1	1	0	1	0	1
EBT	368	117	485	41	526	229	51	280	24	304
EBR	0	0	0	0	0	0		0	0	0
WBL	0	0	0	0	0	0		0	0	0
WBT	310	99	409	34	443	513	114	627	53	680
WBR	45	14	59	5	64	26	6	32	3	35
North Leg										
Approach	28	9	37	3	40	38	8	46	4	50
Departure	46	14	60	5	65	27	6	33	3	36
Total	74	23	97	8	105	65	14	79	7	86
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	355	113	468	39	507	539	120	659	55	714
Departure	395	126	521	44	565	267	59	326	27	353
Total	750	239	989	83	1,072	806	179	985	83	1,068
West Leg										
Approach	369	117	486	41	527	230	51	281	24	305
Departure	311	99	410	35	445	513	114	627	53	680
Total	680	216	896	75	971	743	165	908	76	984
Total Approaches										
Approach	752	239	991	83	1,074	807	179	986	83	1,069
Departure	752	239	991	83	1,074	807	179	986	83	1,069
Total	1,504	478	1,982	167	2,149	1,614	358	1,972	166	2,138

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
2 Lake Gregory Drive/State Route 189										
NBL	0		0	0	0	0		0	0	0
NBT	166	46	212	18	230	115	20	135	11	146
NBR	58	16	74	6	80	58	10	68	6	74
SBL	64	18	82	7	89	49	8	57	5	62
SBT	229	64	293	25	318	156	27	183	15	198
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	73	20	93	8	101	97	17	114	10	124
WBT	0	0	0	0	0	0	0	0	0	0
WBR	69	19	88	7	95	47	8	55	5	60
North Leg										
Approach	293	82	375	32	407	205	35	240	20	260
Departure	235	65	300	25	325	162	28	190	16	206
Total	528	147	675	57	732	367	63	430	36	466
South Leg										
Approach	224	62	286	24	310	173	30	203	17	220
Departure	302	84	386	33	419	253	44	297	25	322
Total	526	146	672	57	729	426	74	500	42	542
East Leg										
Approach	142	39	181	15	196	144	25	169	14	183
Departure	122	34	156	13	169	107	18	125	11	136
Total	264	73	337	28	365	251	43	294	25	319
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	659	183	842	71	913	522	90	612	52	664
Departure	659	183	842	71	913	522	90	612	52	664
Total	1,318	366	1,684	142	1,826	1,044	180	1,224	103	1,327

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
3 Lake Gregory Drive/State Route 18										
NBL	0		0	0	0	0		0	0	0
NBT	0		0	0	0	0		0	0	0
NBR	0		0	0	0	0		0	0	0
SBL	205	47	252	21	273	125	24	149	13	162
SBT	0	0	0	0	0	0	0	0	0	0
SBR	93	22	115	10	125	128	25	153	13	166
EBL	81	19	100	8	108	77	15	92	8	100
EBT	308	71	379	32	411	190	37	227	19	246
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	256	59	315	27	342	376	73	449	38	487
WBR	142	33	175	15	190	97	19	116	10	126
North Leg										
Approach	298	69	367	31	398	253	49	302	25	327
Departure	223	52	275	23	298	174	34	208	18	226
Total	521	121	642	54	696	427	83	510	43	553
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	398	92	490	41	531	473	92	565	48	613
Departure	513	118	631	53	684	315	61	376	32	408
Total	911	210	1,121	94	1,215	788	153	941	79	1,020
West Leg										
Approach	389	90	479	40	519	267	52	319	27	346
Departure	349	81	430	36	466	504	98	602	51	653
Total	738	171	909	77	986	771	150	921	78	999
Total Approaches										
Approach	1,085	251	1,336	113	1,449	993	193	1,186	100	1,286
Departure	1,085	251	1,336	113	1,449	993	193	1,186	100	1,286
Total	2,170	502	2,672	225	2,897	1,986	386	2,372	200	2,572

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
4 Bear Springs Road/State Route 18										
NBL	3	1	4	0	4	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	1	0	1	0	1	2	0	2	0	2
SBL	19	4	23	2	25	13	3	16	1	17
SBT	1	0	1	0	1	0	0	0	0	0
SBR	42	8	50	4	54	17	4	21	2	23
EBL	32	6	38	3	41	15	3	18	2	20
EBT	639	126	765	64	829	340	74	414	35	449
EBR	2	0	2	0	2	0	0	0	0	0
WBL	5	1	6	1	7	2	0	2	0	2
WBT	462	91	553	47	600	532	116	648	55	703
WBR	20	4	24	2	26	11	2	13	1	14
North Leg										
Approach	62	12	74	6	80	30	7	37	3	40
Departure	52	10	62	5	67	26	5	31	3	34
Total	114	22	136	11	147	56	12	68	6	74
South Leg										
Approach	4	1	5	0	5	2	0	2	0	2
Departure	8	1	9	1	10	2	0	2	0	2
Total	12	2	14	1	15	4	0	4	0	4
East Leg										
Approach	487	96	583	49	632	545	118	663	56	719
Departure	659	130	789	66	855	355	77	432	36	468
Total	1,146	226	1,372	116	1,488	900	195	1,095	92	1,187
West Leg										
Approach	673	132	805	68	873	355	77	432	36	468
Departure	507	100	607	51	658	549	120	669	56	725
Total	1,180	232	1,412	119	1,531	904	197	1,101	93	1,194
Total Approaches										
Approach	1,226	241	1,467	124	1,591	932	202	1,134	95	1,229
Departure	1,226	241	1,467	124	1,591	932	202	1,134	95	1,229
Total	2,452	482	2,934	247	3,181	1,864	404	2,268	191	2,459

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
6 Lake Forest Drive/Grass Valley Road										
NBL	7	1	8	1	9	2	0	2	0	2
NBT	236	35	271	23	294	165	27	192	16	208
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	226	33	259	22	281	269	44	313	26	339
SBR	3	0	3	0	3	4	1	5	0	5
EBL	1	0	1	0	1	2	0	2	0	2
EBT	0	0	0	0	0	0	0	0	0	0
EBR	9	1	10	1	11	4	1	5	0	5
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	229	33	262	22	284	273	45	318	27	345
Departure	237	35	272	23	295	167	27	194	16	210
Total	466	68	534	45	579	440	72	512	43	555
South Leg										
Approach	243	36	279	23	302	167	27	194	16	210
Departure	235	34	269	23	292	273	45	318	27	345
Total	478	70	548	46	594	440	72	512	43	555
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	10	1	11	1	12	6	1	7	1	8
Departure	10	1	11	1	12	6	1	7	1	8
Total	20	2	22	2	24	12	2	14	1	15
Total Approaches										
Approach	482	70	552	46	598	446	73	519	44	563
Departure	482	70	552	46	598	446	73	519	44	563
Total	964	140	1,104	93	1,197	892	146	1,038	87	1,125

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
7 State Route 189/Grass Valley Road										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	67	10	77	6	83	45	7	52	4	56
NBR	129	18	147	12	159	84	14	98	8	106
SBL	64	9	73	6	79	55	9	64	5	69
SBT	133	19	152	13	165	117	19	136	11	147
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	183	26	209	18	227	181	30	211	18	229
WBT	0	0	0	0	0	0	0	0	0	0
WBR	126	18	144	12	156	126	21	147	12	159
North Leg										
Approach	197	28	225	19	244	172	28	200	17	217
Departure	193	28	221	19	240	171	28	199	17	216
Total	390	56	446	38	484	343	56	399	34	433
South Leg										
Approach	196	28	224	19	243	129	21	150	13	163
Departure	316	45	361	30	391	298	49	347	29	376
Total	512	73	585	49	634	427	70	497	42	539
East Leg										
Approach	309	44	353	30	383	307	51	358	30	388
Departure	193	27	220	19	239	139	23	162	14	176
Total	502	71	573	48	621	446	74	520	44	564
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	702	100	802	68	870	608	100	708	60	768
Departure	702	100	802	68	870	608	100	708	60	768
Total	1,404	200	1,604	135	1,739	1,216	200	1,416	119	1,535

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
8 Daley Canyon Road/State Route 189										
NBL	166	20	186	16	202	100	13	113	10	123
NBT	248	30	278	23	301	136	18	154	13	167
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	187	23	210	18	228	183	24	207	17	224
SBR	42	5	47	4	51	36	5	41	3	44
EBL	176	22	198	17	215	141	19	160	13	173
EBT	0	0	0	0	0	0	0	0	0	0
EBR	159	19	178	15	193	171	22	193	16	209
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	229	28	257	22	279	219	29	248	21	269
Departure	424	52	476	40	516	277	37	314	26	340
Total	653	80	733	62	795	496	66	562	47	609
South Leg										
Approach	414	50	464	39	503	236	31	267	22	289
Departure	346	42	388	33	421	354	46	400	34	434
Total	760	92	852	72	924	590	77	667	56	723
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	335	41	376	32	408	312	41	353	30	383
Departure	208	25	233	20	253	136	18	154	13	167
Total	543	66	609	51	660	448	59	507	43	550
Total Approaches										
Approach	978	119	1,097	92	1,189	767	101	868	73	941
Departure	978	119	1,097	92	1,189	767	101	868	73	941
Total	1,956	238	2,194	185	2,379	1,534	202	1,736	146	1,882

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
9 Daley Canyon Road/Daley Canyon Access Road										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	275	35	310	26	336	112	13	125	11	136
NBR	0	0	0	0	0	0	0	0	0	0
SBL	114	14	128	11	139	94	11	105	9	114
SBT	232	30	262	22	284	258	30	288	24	312
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	1	0	1	0	1	15	2	17	1	18
WBT	0	0	0	0	0	0	0	0	0	0
WBR	146	19	165	14	179	123	14	137	12	149
North Leg										
Approach	346	44	390	33	423	352	41	393	33	426
Departure	421	54	475	40	515	235	27	262	22	284
Total	767	98	865	73	938	587	68	655	55	710
South Leg										
Approach	275	35	310	26	336	112	13	125	11	136
Departure	233	30	263	22	285	273	32	305	26	331
Total	508	65	573	48	621	385	45	430	36	466
East Leg										
Approach	147	19	166	14	180	138	16	154	13	167
Departure	114	14	128	11	139	94	11	105	9	114
Total	261	33	294	25	319	232	27	259	22	281
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	768	98	866	73	939	602	70	672	57	729
Departure	768	98	866	73	939	602	70	672	57	729
Total	1,536	196	1,732	146	1,878	1,204	140	1,344	113	1,457

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
10 Daley Canyon Road/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	4	1	5	0	5	2	0	2	0	2
SBT	0	0	0	0	0	0	0	0	0	0
SBR	228	45	273	23	296	270	59	329	28	357
EBL	268	53	321	27	348	106	23	129	11	140
EBT	391	77	468	39	507	248	54	302	25	327
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	263	52	315	27	342	275	60	335	28	363
WBR	1	0	1	0	1	5	1	6	1	7
North Leg										
Approach	232	46	278	23	301	272	59	331	28	359
Departure	269	53	322	27	349	111	24	135	11	146
Total	501	99	600	51	651	383	83	466	39	505
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	264	52	316	27	343	280	61	341	29	370
Departure	395	78	473	40	513	250	54	304	26	330
Total	659	130	789	66	855	530	115	645	54	699
West Leg										
Approach	659	130	789	66	855	354	77	431	36	467
Departure	491	97	588	50	638	545	119	664	56	720
Total	1,150	227	1,377	116	1,493	899	196	1,095	92	1,187
Total Approaches										
Approach	1,155	228	1,383	116	1,499	906	197	1,103	93	1,196
Departure	1,155	228	1,383	116	1,499	906	197	1,103	93	1,196
Total	2,310	456	2,766	233	2,999	1,812	394	2,206	186	2,392

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
11 Daley Canyon Access Road/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	119	26	145	12	157	118	37	155	13	168
SBT	0	0	0	0	0	0	0	0	0	0
SBR	6	1	7	1	8	4	1	5	0	5
EBL	6	1	7	1	8	10	3	13	1	14
EBT	390	85	475	40	515	244	76	320	27	347
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	273	60	333	28	361	277	86	363	31	394
WBR	164	36	200	17	217	103	32	135	11	146
North Leg										
Approach	125	27	152	13	165	122	38	160	13	173
Departure	170	37	207	17	224	113	35	148	12	160
Total	295	64	359	30	389	235	73	308	26	334
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	437	96	533	45	578	380	118	498	42	540
Departure	509	111	620	52	672	362	113	475	40	515
Total	946	207	1,153	97	1,250	742	231	973	82	1,055
West Leg										
Approach	396	86	482	41	523	254	79	333	28	361
Departure	279	61	340	29	369	281	87	368	31	399
Total	675	147	822	69	891	535	166	701	59	760
Total Approaches										
Approach	958	209	1,167	98	1,265	756	235	991	83	1,074
Departure	958	209	1,167	98	1,265	756	235	991	83	1,074
Total	1,916	418	2,334	197	2,531	1,512	470	1,982	167	2,149

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
12 Bay Road/State Route 189										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	79	5	84	7	91	60	6	66	6	72
SBT	0	0	0	0	0	0	0	0	0	0
SBR	170	11	181	15	196	182	17	199	17	216
EBL	191	13	204	17	221	119	11	130	11	141
EBT	247	16	263	22	285	148	14	162	14	176
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	176	12	188	16	204	129	12	141	12	153
WBR	91	6	97	8	105	37	3	40	3	43
North Leg										
Approach	249	16	265	22	287	242	23	265	22	287
Departure	282	19	301	25	326	156	14	170	14	184
Total	531	35	566	48	614	398	37	435	37	472
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	267	18	285	24	309	166	15	181	15	196
Departure	326	21	347	29	376	208	20	228	19	247
Total	593	39	632	53	685	374	35	409	34	443
West Leg										
Approach	438	29	467	39	506	267	25	292	25	317
Departure	346	23	369	31	400	311	29	340	29	369
Total	784	52	836	70	906	578	54	632	53	685
Total Approaches										
Approach	954	63	1,017	86	1,103	675	63	738	62	800
Departure	954	63	1,017	86	1,103	675	63	738	62	800
Total	1,908	126	2,034	171	2,205	1,350	126	1,476	124	1,600

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
13 Bay Road/Little Bear Road										
NBL	8	1	9	1	10	10	1	11	1	12
NBT	226	32	258	22	280	132	16	148	12	160
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	214	30	244	21	265	234	28	262	22	284
SBR	0	0	0	0	0	2	0	2	0	2
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	17	2	19	2	21	15	2	17	1	18
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	214	30	244	21	265	236	28	264	22	286
Departure	226	32	258	22	280	132	16	148	12	160
Total	440	62	502	42	544	368	44	412	35	447
South Leg										
Approach	234	33	267	22	289	142	17	159	13	172
Departure	231	32	263	22	285	249	30	279	23	302
Total	465	65	530	45	575	391	47	438	37	475
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	17	2	19	2	21	15	2	17	1	18
Departure	8	1	9	1	10	12	1	13	1	14
Total	25	3	28	2	30	27	3	30	3	33
Total Approaches										
Approach	465	65	530	45	575	393	47	440	37	477
Departure	465	65	530	45	575	393	47	440	37	477
Total	930	130	1,060	89	1,149	786	94	880	74	954

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
14 Rocky Point Road/State Route 189										
NBL	0		0	0	0	0	0	0	0	0
NBT	0		0	0	0	0	0	0	0	0
NBR	0		0	0	0	0	0	0	0	0
SBL	2		2	0	2	2	0	2	0	2
SBT	0		0	0	0	0	0	0	0	0
SBR	4		4	0	4	2	0	2	0	2
EBL	12		12	1	13	1	0	1	0	1
EBT	310		310	26	336	212	3	215	18	233
EBR	0		0	0	0	0	0	0	0	0
WBL	0		0	0	0	0	0	0	0	0
WBT	253		253	21	274	151	2	153	13	166
WBR	2		2	0	2	3	0	3	0	3
North Leg										
Approach	6	0	6	1	7	4	0	4	0	4
Departure	14	0	14	1	15	4	0	4	0	4
Total	20	0	20	2	22	8	0	8	1	9
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	255	0	255	21	276	154	2	156	13	169
Departure	312	0	312	26	338	214	3	217	18	235
Total	567	0	567	48	615	368	5	373	31	404
West Leg										
Approach	322	0	322	27	349	213	3	216	18	234
Departure	257	0	257	22	279	153	2	155	13	168
Total	579	0	579	49	628	366	5	371	31	402
Total Approaches										
Approach	583	0	583	49	632	371	5	376	32	408
Departure	583	0	583	49	632	371	5	376	32	408
Total	1,166	0	1,166	98	1,264	742	10	752	63	815

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
15 Greenway Drive/State Route 189										
NBL	2		2	0	2	0	0	0	0	0
NBT	0		0	0	0	0	0	0	0	0
NBR	0		0	0	0	2	0	2	0	2
SBL	1		1	0	1	0	0	0	0	0
SBT	0		0	0	0	0	0	0	0	0
SBR	7		7	1	8	1	0	1	0	1
EBL	5		5	0	5	1	0	1	0	1
EBT	308		308	26	334	202	3	205	17	222
EBR	1		1	0	1	1	0	1	0	1
WBL	0		0	0	0	1	0	1	0	1
WBT	249		249	21	270	165	2	167	14	181
WBR	1		1	0	1	0	0	0	0	0
North Leg										
Approach	8	0	8	1	9	1	0	1	0	1
Departure	6	0	6	1	7	1	0	1	0	1
Total	14	0	14	1	15	2	0	2	0	2
South Leg										
Approach	2	0	2	0	2	2	0	2	0	2
Departure	1	0	1	0	1	2	0	2	0	2
Total	3	0	3	0	3	4	0	4	0	4
East Leg										
Approach	250	0	250	21	271	166	2	168	14	182
Departure	309	0	309	26	335	204	3	207	17	224
Total	559	0	559	47	606	370	5	375	32	407
West Leg										
Approach	314	0	314	26	340	204	3	207	17	224
Departure	258	0	258	22	280	166	2	168	14	182
Total	572	0	572	48	620	370	5	375	32	407
Total Approaches										
Approach	574	0	574	48	622	373	5	378	32	410
Departure	574	0	574	48	622	373	5	378	32	410
Total	1,148	0	1,148	97	1,245	746	10	756	64	820

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
16 State Route 173/Crest Estates Drive										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	236	32	268	23	291	163	22	185	16	201
NBR	3	0	3	0	3	64	9	73	6	79
SBL	2	0	2	0	2	1	0	1	0	1
SBT	133	18	151	13	164	111	15	126	11	137
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	48	7	55	5	60
WBT	0	0	0	0	0	0	0	0	0	0
WBR	3	0	3	0	3	25	3	28	2	30
North Leg										
Approach	135	18	153	13	166	112	15	127	11	138
Departure	239	32	271	23	294	188	25	213	18	231
Total	374	50	424	36	460	300	40	340	29	369
South Leg										
Approach	239	32	271	23	294	227	31	258	22	280
Departure	133	18	151	13	164	159	22	181	15	196
Total	372	50	422	36	458	386	53	439	37	476
East Leg										
Approach	3	0	3	0	3	73	10	83	7	90
Departure	5	0	5	0	5	65	9	74	6	80
Total	8	0	8	1	9	138	19	157	13	170
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	377	50	427	36	463	412	56	468	39	507
Departure	377	50	427	36	463	412	56	468	39	507
Total	754	100	854	72	926	824	112	936	79	1,015

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
17 State Route 173/State Route 18										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	52	17	69	6	75	51	17	68	6	74
SBT	0	0	0	0	0	0	0	0	0	0
SBR	112	37	149	13	162	148	51	199	17	216
EBL	189	62	251	21	272	137	47	184	15	199
EBT	305	100	405	34	439	122	42	164	14	178
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0
WBT	207	68	275	23	298	139	47	186	16	202
WBR	81	27	108	9	117	52	18	70	6	76
North Leg										
Approach	164	54	218	18	236	199	68	267	22	289
Departure	270	89	359	30	389	189	65	254	21	275
Total	434	143	577	49	626	388	133	521	44	565
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
East Leg										
Approach	288	95	383	32	415	191	65	256	22	278
Departure	357	117	474	40	514	173	59	232	20	252
Total	645	212	857	72	929	364	124	488	41	529
West Leg										
Approach	494	162	656	55	711	259	89	348	29	377
Departure	319	105	424	36	460	287	98	385	32	417
Total	813	267	1,080	91	1,171	546	187	733	62	795
Total Approaches										
Approach	946	311	1,257	106	1,363	649	222	871	73	944
Departure	946	311	1,257	106	1,363	649	222	871	73	944
Total	1,892	622	2,514	212	2,726	1,298	444	1,742	147	1,889

Table B-7 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour					Sunday Peak Hour				
	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP	Exist Volumes	Growth	Year 2,040 Background	Seasonal Adjustment	Year 2,040 NP
18 Pine Avenue/State Route 18										
NBL	31	6	37	3	40	25	5	30	3	33
NBT	0	0	0	0	0	0	0	0	0	0
NBR	109	22	131	11	142	28	6	34	3	37
SBL	2	0	2	0	2	3	1	4	0	4
SBT	0	0	0	0	0	0	0	0	0	0
SBR	1	0	1	0	1	0	0	0	0	0
EBL	1	0	1	0	1	0	0	0	0	0
EBT	513	102	615	52	667	302	66	368	31	399
EBR	31	6	37	3	40	13	3	16	1	17
WBL	119	24	143	12	155	31	7	38	3	41
WBT	352	70	422	36	458	474	103	577	49	626
WBR	1	0	1	0	1	0	0	0	0	0
North Leg										
Approach	3	0	3	0	3	3	1	4	0	4
Departure	2	0	2	0	2	0	0	0	0	0
Total	5	0	5	0	5	3	1	4	0	4
South Leg										
Approach	140	28	168	14	182	53	11	64	5	69
Departure	150	30	180	15	195	44	10	54	5	59
Total	290	58	348	29	377	97	21	118	10	128
East Leg										
Approach	472	94	566	48	614	505	110	615	52	667
Departure	624	124	748	63	811	333	73	406	34	440
Total	1,096	218	1,314	111	1,425	838	183	1,021	86	1,107
West Leg										
Approach	545	108	653	55	708	315	69	384	32	416
Departure	384	76	460	39	499	499	108	607	51	658
Total	929	184	1,113	94	1,207	814	177	991	83	1,074
Total Approaches										
Approach	1,160	230	1,390	117	1,507	876	191	1,067	90	1,157
Departure	1,160	230	1,390	117	1,507	876	191	1,067	90	1,157
Total	2,320	460	2,780	234	3,014	1,752	382	2,134	180	2,314

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
1 . Crest Forest Drive/State Route 18								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	29	39	10	39	41	50	9	50
SBT	0	0	0	0	0	0	0	0
SBR	1	1	0	1	0	0	0	0
EBL	1	1	0	1	1	1	0	1
EBT	486	526	39	526	314	304	-11	330
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	362	443	81	443	578	680	102	680
WBR	50	64	14	64	28	35	7	35
North Leg								
Approach	30	40	10	40	41	50	9	50
Departure	51	65	14	65	29	36	7	36
Total	81	105	24	105	70	86	15	86
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	412	507	95	507	606	714	109	714
Departure	516	565	49	565	356	353	-2	380
Total	928	1,072	144	1,072	961	1,068	106	1,095
West Leg								
Approach	487	527	39	527	316	305	-11	331
Departure	364	445	81	445	578	680	102	680
Total	851	971	120	971	893	984	91	1,011
Total Approaches								
Approach	930	1,074	144	1,074	963	1,069	106	1,096
Departure	930	1,074	144	1,074	963	1,069	106	1,096
Total	1,860	2,149	289	2,149	1,925	2,138	213	2,191

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
2 Lake Gregory Drive/State Route 189								
NBL	0	0	0	0	0	0	0	0
NBT	183	230	47	230	128	146	19	146
NBR	82	80	-2	86	63	74	11	74
SBL	70	89	18	89	53	62	9	62
SBT	255	318	63	318	172	198	26	198
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0
WBL	87	101	14	101	106	124	17	124
WBT	0	0	0	0	0	0	0	0
WBR	76	95	20	95	51	60	9	60
North Leg								
Approach	325	407	82	407	225	260	35	260
Departure	259	325	66	325	179	206	27	206
Total	584	732	148	732	404	466	62	466
South Leg								
Approach	265	310	45	316	191	220	29	220
Departure	342	419	77	419	278	322	44	322
Total	607	729	122	734	469	542	73	542
East Leg								
Approach	163	196	33	196	157	183	26	183
Departure	152	169	17	175	116	136	20	136
Total	316	365	50	371	273	319	46	319
West Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Total Approaches								
Approach	753	913	160	919	573	664	90	664
Departure	753	913	160	919	573	664	90	664
Total	1,507	1,826	319	1,837	1,146	1,327	181	1,327

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
3 Lake Gregory Drive/State Route 18								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	227	273	46	273	139	162	23	162
SBT	0	0	0	0	0	0	0	0
SBR	109	125	16	125	140	166	26	166
EBL	107	108	2	108	85	100	15	100
EBT	401	411	10	411	272	246	-26	286
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	296	342	46	342	427	487	60	487
WBR	156	190	34	190	108	126	18	126
North Leg								
Approach	336	398	62	398	278	327	49	327
Departure	263	298	35	298	193	226	33	226
Total	599	696	97	696	471	553	82	553
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	452	531	79	531	535	613	77	613
Departure	629	684	56	684	411	408	-3	447
Total	1,080	1,215	135	1,215	946	1,020	74	1,060
West Leg								
Approach	508	519	11	519	357	346	-11	386
Departure	405	466	61	466	567	653	86	653
Total	913	986	73	986	924	999	75	1,038
Total Approaches								
Approach	1,296	1,449	152	1,449	1,170	1,286	115	1,326
Departure	1,296	1,449	152	1,449	1,170	1,286	115	1,326
Total	2,593	2,897	304	2,897	2,341	2,572	231	2,651

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
4 Bear Springs Road/State Route 18								
NBL	3	4	1	4	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	1	1	0	1	2	2	0	2
SBL	23	25	2	25	16	17	1	17
SBT	1	1	0	1	0	0	0	0
SBR	46	54	9	54	18	23	4	23
EBL	35	41	7	41	16	20	3	20
EBT	764	829	65	829	438	449	11	449
EBR	2	2	0	2	0	0	0	0
WBL	5	7	1	7	2	2	0	2
WBT	522	600	77	600	599	703	103	703
WBR	22	26	4	26	12	14	2	14
North Leg								
Approach	69	80	11	80	35	40	6	40
Departure	56	67	11	67	28	34	5	34
Total	126	147	22	147	63	74	11	74
South Leg								
Approach	4	5	1	5	2	2	0	2
Departure	9	10	1	10	2	2	0	2
Total	13	15	2	15	4	4	0	4
East Leg								
Approach	549	632	83	632	613	719	106	719
Departure	788	855	68	855	456	468	12	468
Total	1,337	1,488	150	1,488	1,069	1,187	118	1,187
West Leg								
Approach	801	873	72	873	454	468	14	468
Departure	571	658	87	658	618	725	108	725
Total	1,372	1,531	159	1,531	1,072	1,194	122	1,194
Total Approaches								
Approach	1,424	1,591	167	1,591	1,104	1,229	125	1,229
Departure	1,424	1,591	167	1,591	1,104	1,229	125	1,229
Total	2,848	3,181	333	3,181	2,208	2,459	251	2,459

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
6 Lake Forest Drive/Grass Valley Road								
NBL	8	9	1	9	2	2	0	2
NBT	265	294	29	294	192	208	16	208
NBR	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0
SBT	252	281	29	281	308	339	32	339
SBR	3	3	0	3	4	5	1	5
EBL	1	1	0	1	2	2	0	2
EBT	0	0	0	0	0	0	0	0
EBR	10	11	1	11	4	5	1	5
WBL	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0
North Leg								
Approach	255	284	29	284	312	345	33	345
Departure	266	295	29	295	194	210	16	210
Total	521	579	57	579	506	555	49	555
South Leg								
Approach	273	302	30	302	194	210	16	210
Departure	262	292	30	292	312	345	33	345
Total	535	594	60	594	506	555	49	555
East Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
West Leg								
Approach	11	12	1	12	7	8	1	8
Departure	11	12	1	12	7	8	1	8
Total	22	24	2	24	13	15	2	15
Total Approaches								
Approach	539	598	60	598	513	563	50	563
Departure	539	598	60	598	513	563	50	563
Total	1,078	1,197	119	1,197	1,026	1,125	100	1,125

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
7 State Route 189/Grass Valley Road								
NBL	0	0	0	0	0	0	0	0
NBT	80	83	4	83	49	56	8	56
NBR	146	159	13	159	101	106	5	106
SBL	71	79	8	79	63	69	7	69
SBT	150	165	15	165	129	147	19	147
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0
WBL	203	227	23	227	207	229	21	229
WBT	0	0	0	0	0	0	0	0
WBR	139	156	17	156	141	159	19	159
North Leg								
Approach	222	244	22	244	192	217	25	217
Departure	218	240	21	240	189	216	26	216
Total	440	484	44	484	381	433	52	433
South Leg								
Approach	226	243	17	243	150	163	13	163
Departure	354	391	38	391	336	376	40	376
Total	579	634	55	634	486	539	53	539
East Leg								
Approach	342	383	41	383	348	388	40	388
Departure	217	239	21	239	164	176	12	176
Total	560	621	62	621	512	564	52	564
West Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Total Approaches								
Approach	789	870	80	870	690	768	78	768
Departure	789	870	80	870	690	768	78	768
Total	1,579	1,739	160	1,739	1,379	1,535	156	1,535

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
8 Daley Canyon Road/State Route 189								
NBL	193	202	9	202	119	123	4	123
NBT	278	301	23	301	156	167	11	167
NBR	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0
SBT	211	228	17	228	205	224	19	224
SBR	46	51	5	51	39	44	5	44
EBL	192	215	23	215	154	173	20	173
EBT	0	0	0	0	0	0	0	0
EBR	182	193	11	193	197	209	12	209
WBL	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0
North Leg								
Approach	256	279	22	279	245	269	24	269
Departure	470	516	46	516	309	340	31	340
Total	726	795	68	795	554	609	55	609
South Leg								
Approach	471	503	32	503	274	289	15	289
Departure	393	421	27	421	403	434	31	434
Total	864	924	59	924	677	723	46	723
East Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
West Leg								
Approach	374	408	33	408	351	383	31	383
Departure	239	253	14	253	158	167	9	167
Total	613	660	47	660	509	550	41	550
Total Approaches								
Approach	1,102	1,189	88	1,189	870	941	71	941
Departure	1,102	1,189	88	1,189	870	941	71	941
Total	2,204	2,379	175	2,379	1,740	1,882	142	1,882

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
9 Daley Canyon Road/Daley Canyon Access Road								
NBL	0	0	0	0	0	0	0	0
NBT	320	336	16	336	140	136	-4	146
NBR	0	0	0	0	0	0	0	0
SBL	125	139	14	139	102	114	12	114
SBT	270	284	14	284	298	312	14	312
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0
WBL	1	1	0	1	16	18	2	18
WBT	0	0	0	0	0	0	0	0
WBR	159	179	20	179	134	149	14	149
North Leg								
Approach	394	423	29	423	400	426	26	426
Departure	480	515	35	515	274	284	10	295
Total	874	938	64	938	674	710	36	721
South Leg								
Approach	320	336	16	336	140	136	-4	146
Departure	271	285	14	285	314	331	17	331
Total	591	621	30	621	454	466	13	477
East Leg								
Approach	160	180	20	180	151	167	16	167
Departure	125	139	14	139	102	114	12	114
Total	285	319	34	319	253	281	28	281
West Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Total Approaches								
Approach	875	939	64	939	690	729	39	740
Departure	875	939	64	939	690	729	39	740
Total	1,750	1,878	128	1,878	1,380	1,457	77	1,479

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
10 Daley Canyon Road/State Route 18								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	12	5	-7	13	10	2	-8	11
SBT	0	0	0	0	0	0	0	0
SBR	258	296	38	296	305	357	52	357
EBL	303	348	45	348	127	140	13	140
EBT	485	507	22	507	329	327	-2	346
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	296	342	45	342	310	363	53	363
WBR	12	1	-11	13	11	7	-5	12
North Leg								
Approach	271	301	31	309	315	359	44	367
Departure	315	349	34	361	138	146	8	152
Total	586	651	65	670	454	505	52	519
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	308	343	34	354	322	370	48	375
Departure	498	513	15	520	339	330	-10	356
Total	806	855	50	875	661	699	38	731
West Leg								
Approach	788	855	68	855	456	467	11	485
Departure	555	638	83	638	615	720	105	720
Total	1,343	1,493	150	1,493	1,071	1,187	116	1,205
Total Approaches								
Approach	1,367	1,499	132	1,519	1,093	1,196	103	1,228
Departure	1,367	1,499	132	1,519	1,093	1,196	103	1,228
Total	2,734	2,999	265	3,037	2,186	2,392	206	2,456

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
11 Daley Canyon Access Road/State Route 18								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	130	157	27	157	130	168	38	168
SBT	0	0	0	0	0	0	0	0
SBR	7	8	1	8	4	5	1	5
EBL	7	8	1	8	11	14	3	14
EBT	489	515	26	515	334	347	13	347
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	312	361	49	361	320	394	74	394
WBR	180	217	37	217	113	146	34	146
North Leg								
Approach	137	165	28	165	134	173	39	173
Departure	186	224	38	224	124	160	37	160
Total	323	389	66	389	258	334	76	334
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	492	578	86	578	432	540	108	540
Departure	619	672	53	672	464	515	51	515
Total	1,112	1,250	139	1,250	896	1,055	159	1,055
West Leg								
Approach	496	523	27	523	345	361	16	361
Departure	319	369	50	369	324	399	75	399
Total	814	891	77	891	669	760	91	760
Total Approaches								
Approach	1,125	1,265	141	1,265	912	1,074	163	1,074
Departure	1,125	1,265	141	1,265	912	1,074	163	1,074
Total	2,249	2,531	282	2,531	1,823	2,149	326	2,149

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
12 Bay Road/State Route 189								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	86	91	5	91	65	72	7	72
SBT	0	0	0	0	0	0	0	0
SBR	184	196	12	196	198	216	17	216
EBL	208	221	13	221	129	141	12	141
EBT	277	285	8	285	169	176	7	176
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	199	204	5	204	147	153	6	153
WBR	99	105	7	105	40	43	3	43
North Leg								
Approach	270	287	17	287	263	287	24	287
Departure	307	326	20	326	169	184	15	184
Total	577	614	37	614	433	472	39	472
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	298	309	11	309	187	196	9	196
Departure	363	376	14	376	234	247	14	247
Total	660	685	25	685	421	443	23	443
West Leg								
Approach	485	506	21	506	298	317	19	317
Departure	383	400	17	400	345	369	23	369
Total	868	906	38	906	643	685	42	685
Total Approaches								
Approach	1,053	1,103	50	1,103	748	800	52	800
Departure	1,053	1,103	50	1,103	748	800	52	800
Total	2,105	2,205	100	2,205	1,496	1,600	104	1,600

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
13 Bay Road/Little Bear Road								
NBL	9	10	1	10	11	12	1	12
NBT	246	280	34	280	144	160	16	160
NBR	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0
SBT	233	265	31	265	255	284	29	284
SBR	0	0	0	0	2	2	0	2
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	18	21	2	21	16	18	2	18
WBL	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0
North Leg								
Approach	233	265	31	265	257	286	29	286
Departure	246	280	34	280	144	160	16	160
Total	479	544	65	544	401	447	46	447
South Leg								
Approach	255	289	35	289	155	172	17	172
Departure	252	285	34	285	271	302	31	302
Total	506	575	68	575	426	475	49	475
East Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
West Leg								
Approach	18	21	2	21	16	18	2	18
Departure	9	10	1	10	13	14	1	14
Total	27	30	3	30	29	33	3	33
Total Approaches								
Approach	506	575	68	575	428	477	49	477
Departure	506	575	68	575	428	477	49	477
Total	1,013	1,149	137	1,149	857	954	98	954

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour			Year 2,040 NP	Sunday Peak Hour			Year 2,040 NP
	OY NP	2,040 NP	Comparison		OY NP	2,040 NP	Comparison	
14 Rocky Point Road/State Route 189								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	2	2	0	2	2	2	0	2
SBT	0	0	0	0	0	0	0	0
SBR	4	4	0	4	2	2	0	2
EBL	13	13	0	13	1	1	0	1
EBT	344	336	-8	361	237	233	-4	249
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	282	274	-8	296	171	166	-5	179
WBR	2	2	0	2	3	3	0	3
North Leg								
Approach	7	7	0	7	4	4	0	4
Departure	15	15	0	15	4	4	0	4
Total	22	22	0	22	9	9	0	9
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	284	276	-8	299	174	169	-5	183
Departure	346	338	-8	363	239	235	-4	251
Total	631	615	-16	662	413	404	-9	433
West Leg								
Approach	357	349	-8	374	238	234	-4	250
Departure	287	279	-8	301	173	168	-5	181
Total	644	628	-16	675	411	402	-9	431
Total Approaches								
Approach	648	632	-16	679	416	408	-9	437
Departure	648	632	-16	679	416	408	-9	437
Total	1,296	1,264	-32	1,359	832	815	-17	873

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour			Year 2,040 NP	Sunday Peak Hour			Year 2,040 NP
	OY NP	2,040 NP	Comparison		OY NP	2,040 NP	Comparison	
15 Greenway Drive/State Route 189								
NBL	2	2	0	2	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	2	2	0	2
SBL	1	1	0	1	0	0	0	0
SBT	0	0	0	0	0	0	0	0
SBR	8	8	0	8	1	1	0	1
EBL	5	5	0	5	1	1	0	1
EBT	342	334	-8	359	226	222	-4	237
EBR	1	1	0	1	1	1	0	1
WBL	0	0	0	0	1	1	0	1
WBT	278	270	-8	292	186	181	-5	195
WBR	1	1	0	1	0	0	0	0
North Leg								
Approach	9	9	0	9	1	1	0	1
Departure	7	7	0	7	1	1	0	1
Total	15	15	0	15	2	2	0	2
South Leg								
Approach	2	2	0	2	2	2	0	2
Departure	1	1	0	1	2	2	0	2
Total	3	3	0	3	4	4	0	4
East Leg								
Approach	279	271	-8	293	187	182	-5	196
Departure	343	335	-8	360	228	224	-4	239
Total	622	606	-16	653	415	407	-9	436
West Leg								
Approach	348	340	-8	366	228	224	-4	239
Departure	288	280	-8	302	187	182	-5	196
Total	636	620	-16	667	415	407	-9	436
Total Approaches								
Approach	638	622	-16	669	418	410	-9	439
Departure	638	622	-16	669	418	410	-9	439
Total	1,277	1,245	-32	1,339	837	820	-17	878

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
16 State Route 173/Crest Estates Drive								
NBL	0	0	0	0	0	0	0	0
NBT	272	291	19	291	192	201	9	201
NBR	3	3	0	3	69	79	10	79
SBL	2	2	0	2	1	1	0	1
SBT	166	164	-3	175	141	137	-5	149
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	52	60	8	60
WBT	0	0	0	0	0	0	0	0
WBR	3	3	0	3	27	30	3	30
North Leg								
Approach	168	166	-3	177	143	138	-5	150
Departure	275	294	19	294	219	231	12	231
Total	444	460	16	471	361	369	7	381
South Leg								
Approach	275	294	19	294	261	280	19	280
Departure	166	164	-3	175	193	196	3	208
Total	441	458	16	468	455	476	21	488
East Leg								
Approach	3	3	0	3	79	90	11	90
Departure	5	5	0	5	70	80	10	80
Total	9	9	0	9	150	170	21	170
West Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Total Approaches								
Approach	447	463	16	474	483	507	25	519
Departure	447	463	16	474	483	507	25	519
Total	894	926	32	948	966	1,015	49	1,039

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
17 State Route 173/State Route 18								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	78	75	-4	82	76	74	-3	80
SBT	0	0	0	0	0	0	0	0
SBR	125	162	37	162	164	216	52	216
EBL	209	272	63	272	152	199	48	199
EBT	401	439	38	439	199	178	-22	209
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	247	298	51	298	167	202	35	202
WBR	104	117	13	117	70	76	5	76
North Leg								
Approach	203	236	33	244	240	289	49	296
Departure	313	389	76	389	222	275	53	275
Total	516	626	109	633	462	565	103	571
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	351	415	65	415	237	278	40	278
Departure	479	514	34	521	276	252	-24	290
Total	830	929	99	937	513	529	16	567
West Leg								
Approach	610	711	101	711	351	377	26	409
Departure	371	460	88	460	331	417	87	417
Total	981	1,171	189	1,171	682	795	113	826
Total Approaches								
Approach	1,164	1,363	199	1,370	828	944	116	982
Departure	1,164	1,363	199	1,370	828	944	116	982
Total	2,328	2,726	398	2,741	1,657	1,889	232	1,965

Table B-8 - Year 2040 Peak Hour Volume Comparison

	Saturday Peak Hour				Sunday Peak Hour			
	OY NP	2,040 NP	Comparison	Year 2,040 NP	OY NP	2,040 NP	Comparison	Year 2,040 NP
18 Pine Avenue/State Route 18								
NBL	34	40	7	40	27	33	5	33
NBT	0	0	0	0	0	0	0	0
NBR	119	142	23	142	30	37	7	37
SBL	2	2	0	2	3	4	1	4
SBT	0	0	0	0	0	0	0	0
SBR	1	1	0	1	0	0	0	0
EBL	1	1	0	1	0	0	0	0
EBT	573	667	94	667	343	399	56	399
EBR	34	40	7	40	14	17	3	17
WBL	130	155	25	155	34	41	8	41
WBT	395	458	63	458	528	626	97	626
WBR	1	1	0	1	0	0	0	0
North Leg								
Approach	3	3	0	3	3	4	1	4
Departure	2	2	0	2	0	0	0	0
Total	5	5	0	5	3	4	1	4
South Leg								
Approach	153	182	29	182	57	69	12	69
Departure	164	195	31	195	48	59	11	59
Total	317	377	61	377	105	128	23	128
East Leg								
Approach	526	614	88	614	562	667	105	667
Departure	694	811	117	811	376	440	64	440
Total	1,220	1,425	205	1,425	938	1,107	169	1,107
West Leg								
Approach	607	708	101	708	357	416	60	416
Departure	430	499	69	499	555	658	103	658
Total	1,037	1,207	170	1,207	912	1,074	162	1,074
Total Approaches								
Approach	1,289	1,507	218	1,507	979	1,157	177	1,157
Departure	1,289	1,507	218	1,507	979	1,157	177	1,157
Total	2,579	3,014	435	3,014	1,959	2,314	355	2,314

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
1 . Crest Forest Drive/State Route 18						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	39	9	48	50	10	60
SBT	0	0	0	0	0	0
SBR	1	0	1	0	0	0
EBL	1	0	1	1	0	1
EBT	526	9	535	330	10	340
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	443	11	454	680	10	690
WBR	64	11	75	35	10	45
North Leg						
Approach	40	9	49	50	10	60
Departure	65	11	76	36	10	46
Total	105	20	125	86	20	106
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	507	22	529	714	20	734
Departure	565	18	583	380	20	400
Total	1,072	40	1,112	1,095	40	1,135
West Leg						
Approach	527	9	536	331	10	341
Departure	445	11	456	680	10	690
Total	971	20	991	1,011	20	1,031
Total Approaches						
Approach	1,074	40	1,114	1,096	40	1,136
Departure	1,074	40	1,114	1,096	40	1,136
Total	2,149	80	2,229	2,191	80	2,271

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
2 Lake Gregory Drive/State Route 189						
NBL	0	0	0	0	0	0
NBT	230	33	263	149	30	179
NBR	86	0	86	75	0	75
SBL	89	0	89	62	0	62
SBT	318	26	344	211	29	240
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	101	0	101	132	0	132
WBT	0	0	0	0	0	0
WBR	95	0	95	60	0	60
North Leg						
Approach	407	26	433	273	29	302
Departure	325	33	358	209	30	239
Total	732	59	791	482	59	541
South Leg						
Approach	316	33	349	224	30	254
Departure	419	26	445	343	29	372
Total	734	59	793	567	59	626
East Leg						
Approach	196	0	196	191	0	191
Departure	175	0	175	137	0	137
Total	371	0	371	328	0	328
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	919	59	978	689	59	748
Departure	919	59	978	689	59	748
Total	1,837	118	1,955	1,377	118	1,495

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
3 Lake Gregory Drive/State Route 18						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	273	26	299	162	29	191
SBT	0	0	0	0	0	0
SBR	136	0	136	182	0	182
EBL	118	0	118	99	0	99
EBT	447	17	464	282	20	302
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	372	22	394	533	20	553
WBR	190	33	223	126	30	156
North Leg						
Approach	409	26	435	343	29	372
Departure	308	33	341	225	30	255
Total	717	59	776	568	59	627
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	561	55	616	659	50	709
Departure	720	43	763	443	49	492
Total	1,281	98	1,379	1,102	99	1,201
West Leg						
Approach	565	17	582	381	20	401
Departure	507	22	529	715	20	735
Total	1,073	39	1,112	1,095	40	1,135
Total Approaches						
Approach	1,536	98	1,634	1,383	99	1,482
Departure	1,536	98	1,634	1,383	99	1,482
Total	3,071	196	3,267	2,765	198	2,963

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
4 Bear Springs Road/State Route 18						
NBL	4	0	4	0	0	0
NBT	0	0	0	0	0	0
NBR	1	0	1	2	0	2
SBL	25	17	42	18	20	38
SBT	1	0	1	0	0	0
SBR	54	0	54	23	0	23
EBL	41	0	41	20	0	20
EBT	831	43	874	470	49	519
EBR	2	0	2	0	0	0
WBL	7	0	7	2	0	2
WBT	618	55	673	727	50	777
WBR	27	22	49	14	20	34
North Leg						
Approach	80	17	97	41	20	61
Departure	68	22	90	34	20	54
Total	148	39	187	75	40	115
South Leg						
Approach	5	0	5	2	0	2
Departure	10	0	10	2	0	2
Total	15	0	15	4	0	4
East Leg						
Approach	651	77	728	743	70	813
Departure	857	60	917	490	69	559
Total	1,509	137	1,646	1,233	139	1,372
West Leg						
Approach	875	43	918	489	49	538
Departure	676	55	731	749	50	799
Total	1,551	98	1,649	1,239	99	1,338
Total Approaches						
Approach	1,612	137	1,749	1,275	139	1,414
Departure	1,612	137	1,749	1,275	139	1,414
Total	3,223	274	3,497	2,551	278	2,829

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
5 Project Driveway/State Route 18						
NBL		0	0		0	0
NBT		0	0		0	0
NBR		0	0		0	0
SBL		144	144		130	130
SBT		0	0		0	0
SBR		77	77		70	70
EBL		60	60		68	68
EBT	857	0	857	490	0	490
EBR		0	0		0	0
WBL		0	0		0	0
WBT	651	0	651	743	0	743
WBR		111	111		127	127
North Leg						
Approach	0	221	221	0	200	200
Departure	0	171	171	0	195	195
Total	0	392	392	0	395	395
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	651	111	762	743	127	870
Departure	857	144	1,001	490	130	620
Total	1,509	255	1,764	1,233	257	1,490
West Leg						
Approach	857	60	917	490	68	558
Departure	651	77	728	743	70	813
Total	1,509	137	1,646	1,233	138	1,371
Total Approaches						
Approach	1,509	392	1,901	1,233	395	1,628
Departure	1,509	392	1,901	1,233	395	1,628
Total	3,017	784	3,801	2,466	790	3,256

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
6 Lake Forest Drive/Grass Valley Road						
NBL	9	13	22	2	12	14
NBT	294	13	307	208	12	220
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	281	10	291	339	12	351
SBR	3	0	3	5	0	5
EBL	1	0	1	2	0	2
EBT	0	0	0	0	0	0
EBR	11	10	21	5	12	17
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	284	10	294	345	12	357
Departure	295	13	308	210	12	222
Total	579	23	602	555	24	579
South Leg						
Approach	302	26	328	210	24	234
Departure	292	20	312	345	24	369
Total	594	46	640	555	48	603
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	12	10	22	8	12	20
Departure	12	13	25	8	12	20
Total	24	23	47	15	24	39
Total Approaches						
Approach	598	46	644	563	48	611
Departure	598	46	644	563	48	611
Total	1,197	92	1,289	1,125	96	1,221

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
7 State Route 189/Grass Valley Road						
NBL	0	0	0	0	0	0
NBT	83	7	90	56	6	62
NBR	159	26	185	106	24	130
SBL	79	0	79	69	0	69
SBT	165	5	170	147	6	153
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	227	20	247	229	23	252
WBT	0	0	0	0	0	0
WBR	156	0	156	159	0	159
North Leg						
Approach	244	5	249	217	6	223
Departure	240	7	247	216	6	222
Total	484	12	496	433	12	445
South Leg						
Approach	243	33	276	163	30	193
Departure	391	25	416	376	29	405
Total	634	58	692	539	59	598
East Leg						
Approach	383	20	403	388	23	411
Departure	239	26	265	176	24	200
Total	621	46	667	564	47	611
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	870	58	928	768	59	827
Departure	870	58	928	768	59	827
Total	1,739	116	1,855	1,535	118	1,653

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
8 Daley Canyon Road/State Route 189						
NBL	202	33	235	123	30	153
NBT	301	55	356	167	50	217
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	228	43	271	224	49	273
SBR	51	0	51	44	0	44
EBL	215	0	215	173	0	173
EBT	0	0	0	0	0	0
EBR	193	26	219	209	29	238
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	279	43	322	269	49	318
Departure	516	55	571	340	50	390
Total	795	98	893	609	99	708
South Leg						
Approach	503	88	591	289	80	369
Departure	421	69	490	434	78	512
Total	924	157	1,081	723	158	881
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	408	26	434	383	29	412
Departure	253	33	286	167	30	197
Total	660	59	719	550	59	609
Total Approaches						
Approach	1,189	157	1,346	941	158	1,099
Departure	1,189	157	1,346	941	158	1,099
Total	2,379	314	2,693	1,882	316	2,198

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year	Project	Year	Year	Project	Year
	2,040 NP	Trips	2,040 WP	2,040 NP	Trips	2,040 WP
9 Daley Canyon Road/Daley Canyon Access Road						
NBL	0	0	0	0	0	0
NBT	362	88	450	152	80	232
NBR	0	0	0	0	0	0
SBL	139	0	139	114	0	114
SBT	308	68	376	347	78	425
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	1	0	1	20	0	20
WBT	0	0	0	0	0	0
WBR	179	0	179	149	0	149
North Leg						
Approach	447	68	515	461	78	539
Departure	541	88	629	301	80	381
Total	988	156	1,144	762	158	920
South Leg						
Approach	362	88	450	152	80	232
Departure	309	68	377	368	78	446
Total	671	156	827	520	158	678
East Leg						
Approach	180	0	180	169	0	169
Departure	139	0	139	114	0	114
Total	319	0	319	283	0	283
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	989	156	1,145	783	158	941
Departure	989	156	1,145	783	158	941
Total	1,978	312	2,290	1,565	316	1,881

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
10 Daley Canyon Road/State Route 18						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	13	0	13	11	0	11
SBT	0	0	0	0	0	0
SBR	296	68	364	357	78	435
EBL	348	88	436	140	80	220
EBT	509	55	564	351	50	401
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	356	43	399	386	49	435
WBR	14	0	14	13	0	13
North Leg						
Approach	309	68	377	367	78	445
Departure	362	88	450	153	80	233
Total	671	156	827	520	158	678
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	369	43	412	399	49	448
Departure	522	55	577	361	50	411
Total	892	98	990	760	99	859
West Leg						
Approach	857	143	1,000	490	130	620
Departure	652	111	763	743	127	870
Total	1,509	254	1,763	1,233	257	1,490
Total Approaches						
Approach	1,536	254	1,790	1,257	257	1,514
Departure	1,536	254	1,790	1,257	257	1,514
Total	3,071	508	3,579	2,514	514	3,028

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
11 Daley Canyon Access Road/State Route 18						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	157	0	157	168	0	168
SBT	0	0	0	0	0	0
SBR	8	0	8	5	0	5
EBL	8	0	8	14	0	14
EBT	515	55	570	347	50	397
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	361	43	404	394	49	443
WBR	217	0	217	146	0	146
North Leg						
Approach	165	0	165	173	0	173
Departure	224	0	224	160	0	160
Total	389	0	389	334	0	334
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	578	43	621	540	49	589
Departure	672	55	727	515	50	565
Total	1,250	98	1,348	1,055	99	1,154
West Leg						
Approach	523	55	578	361	50	411
Departure	369	43	412	399	49	448
Total	891	98	989	760	99	859
Total Approaches						
Approach	1,265	98	1,363	1,074	99	1,173
Departure	1,265	98	1,363	1,074	99	1,173
Total	2,531	196	2,727	2,149	198	2,347

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
12 Bay Road/State Route 189						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	91	0	91	72	0	72
SBT	0	0	0	0	0	0
SBR	196	17	213	216	20	236
EBL	221	22	243	141	20	161
EBT	285	33	318	176	30	206
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	204	26	230	153	29	182
WBR	105	0	105	43	0	43
North Leg						
Approach	287	17	304	287	20	307
Departure	326	22	348	184	20	204
Total	614	39	653	472	40	512
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	309	26	335	196	29	225
Departure	376	33	409	247	30	277
Total	685	59	744	443	59	502
West Leg						
Approach	506	55	561	317	50	367
Departure	400	43	443	369	49	418
Total	906	98	1,004	685	99	784
Total Approaches						
Approach	1,103	98	1,201	800	99	899
Departure	1,103	98	1,201	800	99	899
Total	2,205	196	2,401	1,600	198	1,798

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
13 Bay Road/Little Bear Road						
NBL	10	9	19	12	8	20
NBT	280	13	293	160	12	172
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	265	10	275	284	12	296
SBR	0	0	0	2	0	2
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	21	7	28	18	8	26
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	265	10	275	286	12	298
Departure	280	13	293	160	12	172
Total	544	23	567	447	24	471
South Leg						
Approach	289	22	311	172	20	192
Departure	285	17	302	302	20	322
Total	575	39	614	475	40	515
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	21	7	28	18	8	26
Departure	10	9	19	14	8	22
Total	30	16	46	33	16	49
Total Approaches						
Approach	575	39	614	477	40	517
Departure	575	39	614	477	40	517
Total	1,149	78	1,227	954	80	1,034

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
14 Rocky Point Road/State Route 189						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	2	0	2	2	0	2
SBT	0	0	0	0	0	0
SBR	4	5	9	2	6	8
EBL	13	7	20	1	6	7
EBT	361	22	383	249	20	269
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	296	17	313	179	20	199
WBR	2	0	2	3	0	3
North Leg						
Approach	7	5	12	4	6	10
Departure	15	7	22	4	6	10
Total	22	12	34	9	12	21
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	299	17	316	183	20	203
Departure	363	22	385	251	20	271
Total	662	39	701	433	40	473
West Leg						
Approach	374	29	403	250	26	276
Departure	301	22	323	181	26	207
Total	675	51	726	431	52	483
Total Approaches						
Approach	679	51	730	437	52	489
Departure	679	51	730	437	52	489
Total	1,359	102	1,461	873	104	977

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
15 Greenway Drive/State Route 189						
NBL	2	5	7	0	6	6
NBT	0	0	0	0	0	0
NBR	0	0	0	2	0	2
SBL	1	0	1	0	0	0
SBT	0	0	0	0	0	0
SBR	8	3	11	1	4	5
EBL	5	4	9	1	4	5
EBT	359	13	372	237	12	249
EBR	1	7	8	1	6	7
WBL	0	0	0	1	0	1
WBT	292	10	302	195	12	207
WBR	1	0	1	0	0	0
North Leg						
Approach	9	3	12	1	4	5
Departure	7	4	11	1	4	5
Total	15	7	22	2	8	10
South Leg						
Approach	2	5	7	2	6	8
Departure	1	7	8	2	6	8
Total	3	12	15	4	12	16
East Leg						
Approach	293	10	303	196	12	208
Departure	360	13	373	239	12	251
Total	653	23	676	436	24	460
West Leg						
Approach	366	24	390	239	22	261
Departure	302	18	320	196	22	218
Total	667	42	709	436	44	480
Total Approaches						
Approach	669	42	711	439	44	483
Departure	669	42	711	439	44	483
Total	1,339	84	1,423	878	88	966

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year	Project	Year	Year	Project	Year
	2,040 NP	Trips	2,040 WP	2,040 NP	Trips	2,040 WP
16 State Route 173/Crest Estates Drive						
NBL	0	0	0	0	0	0
NBT	291	11	302	201	10	211
NBR	3	11	14	79	10	89
SBL	2	0	2	1	0	1
SBT	175	9	184	149	10	159
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	0	9	9	60	10	70
WBT	0	0	0	0	0	0
WBR	3	0	3	30	0	30
North Leg						
Approach	177	9	186	150	10	160
Departure	294	11	305	231	10	241
Total	471	20	491	381	20	401
South Leg						
Approach	294	22	316	280	20	300
Departure	175	18	193	208	20	228
Total	468	40	508	488	40	528
East Leg						
Approach	3	9	12	90	10	100
Departure	5	11	16	80	10	90
Total	9	20	29	170	20	190
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	474	40	514	519	40	559
Departure	474	40	514	519	40	559
Total	948	80	1,028	1,039	80	1,119

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year	Project	Year	Year	Project	Year
	2,040 NP	Trips	2,040 WP	2,040 NP	Trips	2,040 WP
17 State Route 173/State Route 18						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	82	0	82	80	0	80
SBT	0	0	0	0	0	0
SBR	162	26	188	216	29	245
EBL	272	33	305	199	30	229
EBT	439	11	450	209	10	219
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	298	9	307	202	10	212
WBR	117	0	117	76	0	76
North Leg						
Approach	244	26	270	296	29	325
Departure	389	33	422	275	30	305
Total	633	59	692	571	59	630
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	415	9	424	278	10	288
Departure	521	11	532	290	10	300
Total	937	20	957	567	20	587
West Leg						
Approach	711	44	755	409	40	449
Departure	460	35	495	417	39	456
Total	1,171	79	1,250	826	79	905
Total Approaches						
Approach	1,370	79	1,449	982	79	1,061
Departure	1,370	79	1,449	982	79	1,061
Total	2,741	158	2,899	1,965	158	2,123

Table B-9 - Year 2040 Peak Hour Volume Summary

	Saturday Peak Hour			Sunday Peak Hour		
	Year 2,040 NP	Project Trips	Year 2,040 WP	Year 2,040 NP	Project Trips	Year 2,040 WP
18 Pine Avenue/State Route 18						
NBL	40	0	40	33	0	33
NBT	0	0	0	0	0	0
NBR	142	0	142	37	0	37
SBL	2	0	2	4	0	4
SBT	0	0	0	0	0	0
SBR	1	0	1	0	0	0
EBL	1	0	1	0	0	0
EBT	667	43	710	399	49	448
EBR	40	0	40	17	0	17
WBL	155	0	155	41	0	41
WBT	458	55	513	626	50	676
WBR	1	0	1	0	0	0
North Leg						
Approach	3	0	3	4	0	4
Departure	2	0	2	0	0	0
Total	5	0	5	4	0	4
South Leg						
Approach	182	0	182	69	0	69
Departure	195	0	195	59	0	59
Total	377	0	377	128	0	128
East Leg						
Approach	614	55	669	667	50	717
Departure	811	43	854	440	49	489
Total	1,425	98	1,523	1,107	99	1,206
West Leg						
Approach	708	43	751	416	49	465
Departure	499	55	554	658	50	708
Total	1,207	98	1,305	1,074	99	1,173
Total Approaches						
Approach	1,507	98	1,605	1,157	99	1,256
Departure	1,507	98	1,605	1,157	99	1,256
Total	3,014	196	3,210	2,314	198	2,512

APPENDIX C: LEVEL OF SERVICE WORKSHEETS

HCM 6th TWSC
1: SR-18 & Crest Forest Dr.

08/18/2017

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	399	336	49	29	1
Future Vol, veh/h	1	399	336	49	29	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	475	400	58	35	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	458	0	906
Stage 1	-	-	429
Stage 2	-	-	477
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1114	-	302
Stage 1	-	-	707
Stage 2	-	-	629
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	1114	-	302
Mov Cap-2 Maneuver	-	-	302
Stage 1	-	-	707
Stage 2	-	-	629

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1114	-	-	-	308
HCM Lane V/C Ratio	0.001	-	-	-	0.116
HCM Control Delay (s)	8.2	0	-	-	18.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

HCM 6th TWSC
2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	79	75	180	63	69	248
Future Vol, veh/h	79	75	180	63	69	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	95	90	217	76	83	299

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	720	255	0	0	293
Stage 1	255	-	-	-	-
Stage 2	465	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	398	789	-	-	1280
Stage 1	792	-	-	-	-
Stage 2	636	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	367	789	-	-	1280
Mov Cap-2 Maneuver	367	-	-	-	-
Stage 1	730	-	-	-	-
Stage 2	636	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	496	1280
HCM Lane V/C Ratio	-	-	0.374	0.065
HCM Control Delay (s)	-	-	16.5	8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.7	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	88	334	278	154	222	101	
Future Volume (veh/h)	88	334	278	154	222	101	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	104	393	327	181	261	119	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	182	695	402	341	881	784	
Arrive On Green	0.11	0.39	0.22	0.22	0.51	0.51	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	104	393	327	181	261	119	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.9	13.7	13.8	8.4	7.0	3.3	
Cycle Q Clear(g_c), s	4.9	13.7	13.8	8.4	7.0	3.3	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	182	695	402	341	881	784	
V/C Ratio(X)	0.57	0.57	0.81	0.53	0.30	0.15	
Avail Cap(c_a), veh/h	263	1013	630	534	881	784	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	19.3	29.5	27.4	11.1	10.2	
Incr Delay (d2), s/veh	2.8	0.7	4.5	1.3	0.9	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	5.6	6.2	3.1	2.6	4.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.5	20.0	34.0	28.7	12.0	10.7	
LnGrp LOS	D	C	C	C	B	B	
Approach Vol, veh/h		497	508		380		
Approach Delay, s/veh		23.5	32.1		11.6		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				34.9	45.1	13.0	21.9
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				15.7	9.0	6.9	15.8
Green Ext Time (p_c), s				2.6	1.1	0.1	2.1
Intersection Summary							
HCM 6th Ctrl Delay			23.4				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↶	↷		↶	↷
Traffic Vol, veh/h	35	693	2	5	501	22	3	0	1	21	1	46
Future Vol, veh/h	35	693	2	5	501	22	3	0	1	21	1	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	37	729	2	5	527	23	3	0	1	22	1	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	550	0	0	731	0	0	1377	1364	730	1354	1354	539
Stage 1	-	-	-	-	-	-	804	804	-	549	549	-
Stage 2	-	-	-	-	-	-	573	560	-	805	805	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1030	-	-	883	-	-	123	149	426	128	151	546
Stage 1	-	-	-	-	-	-	380	398	-	524	520	-
Stage 2	-	-	-	-	-	-	508	514	-	379	398	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1030	-	-	883	-	-	108	143	426	124	145	546
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	143	-	124	145	-
Stage 1	-	-	-	-	-	-	366	384	-	505	517	-
Stage 2	-	-	-	-	-	-	459	511	-	364	384	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			32.9			21.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	108	426	1030	-	-	883	-	-	125	546
HCM Lane V/C Ratio	0.029	0.002	0.036	-	-	0.006	-	-	0.185	0.089
HCM Control Delay (s)	39.3	13.5	8.6	-	-	9.1	-	-	40.2	12.2
HCM Lane LOS	E	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	0.6	0.3

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	10	8	256	245	3
Future Vol, veh/h	1	10	8	256	245	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	10	8	267	255	3

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	540	257	258	0	-	0
Stage 1	257	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	506	787	1318	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	502	787	1318	-	-	-
Mov Cap-2 Maneuver	502	-	-	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1318	-	748	-	-
HCM Lane V/C Ratio	0.006	-	0.015	-	-
HCM Control Delay (s)	7.7	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

08/18/2017

Intersection						
Int Delay, s/veh	8.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	198	137	73	140	69	144
Future Vol, veh/h	198	137	73	140	69	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	208	144	77	147	73	152

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	449	151	0	0	224
Stage 1	151	-	-	-	-
Stage 2	298	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	571	901	-	-	1357
Stage 1	882	-	-	-	-
Stage 2	758	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	540	901	-	-	1357
Mov Cap-2 Maneuver	540	-	-	-	-
Stage 1	834	-	-	-	-
Stage 2	758	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	646	1357
HCM Lane V/C Ratio	-	-	0.546	0.054
HCM Control Delay (s)	-	-	17.1	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.3	0.2

Intersection

Intersection Delay, s/veh	17.9
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	191	172	180	269	203	46
Future Vol, veh/h	191	172	180	269	203	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	199	179	188	280	211	48
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.8	21.6	12.7
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	53%	0%
Vol Thru, %	60%	0%	82%
Vol Right, %	0%	47%	18%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	449	363	249
LT Vol	180	191	0
Through Vol	269	0	203
RT Vol	0	172	46
Lane Flow Rate	468	378	259
Geometry Grp	1	1	1
Degree of Util (X)	0.72	0.595	0.409
Departure Headway (Hd)	5.542	5.661	5.675
Convergence, Y/N	Yes	Yes	Yes
Cap	650	635	630
Service Time	3.599	3.721	3.743
HCM Lane V/C Ratio	0.72	0.595	0.411
HCM Control Delay	21.6	16.8	12.7
HCM Lane LOS	C	C	B
HCM 95th-tile Q	6.1	3.9	2

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	1	158	298	0	124	252
Future Vol, veh/h	1	158	298	0	124	252
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	163	307	0	128	260

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	823	307	0	0	307	0
Stage 1	307	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	346	738	-	-	1265	-
Stage 1	751	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	305	738	-	-	1265	-
Mov Cap-2 Maneuver	305	-	-	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	2.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	731	1265
HCM Lane V/C Ratio	-	-	0.224	0.101
HCM Control Delay (s)	-	-	11.3	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.3

Intersection

Int Delay, s/veh 4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	291	424	285	1	4	247
Future Vol, veh/h	291	424	285	1	4	247
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	306	446	300	1	4	260

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	301	0	-	0	1359
Stage 1	-	-	-	-	301
Stage 2	-	-	-	-	1058
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1272	-	-	-	165
Stage 1	-	-	-	-	755
Stage 2	-	-	-	-	337
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1272	-	-	-	125
Mov Cap-2 Maneuver	-	-	-	-	125
Stage 1	-	-	-	-	573
Stage 2	-	-	-	-	337

Approach

	EB	WB	SB
HCM Control Delay, s	3.6	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1272	-	-	-	689
HCM Lane V/C Ratio	0.241	-	-	-	0.383
HCM Control Delay (s)	8.7	-	-	-	13.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.9	-	-	-	1.8

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	423	296	178	129	7
Future Vol, veh/h	7	423	296	178	129	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	465	325	196	142	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	521	0	806
Stage 1	-	-	325
Stage 2	-	-	481
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1056	-	354
Stage 1	-	-	737
Stage 2	-	-	626
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1056	-	351
Mov Cap-2 Maneuver	-	-	351
Stage 1	-	-	731
Stage 2	-	-	626

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	21.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1056	-	-	-	361
HCM Lane V/C Ratio	0.007	-	-	-	0.414
HCM Control Delay (s)	8.4	-	-	-	21.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	207	268	191	99	86	184
Future Vol, veh/h	207	268	191	99	86	184
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	227	295	210	109	95	202
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.6	14.3	11.6
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	66%	0%	0%
Vol Right, %	0%	0%	34%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	268	290	86	184
LT Vol	207	0	0	86	0
Through Vol	0	268	191	0	0
RT Vol	0	0	99	0	184
Lane Flow Rate	227	295	319	95	202
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.401	0.477	0.502	0.188	0.333
Departure Headway (Hd)	6.341	5.835	5.668	7.144	5.925
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	569	618	634	503	607
Service Time	4.079	3.572	3.706	4.887	3.668
HCM Lane V/C Ratio	0.399	0.477	0.503	0.189	0.333
HCM Control Delay	13.3	13.8	14.3	11.5	11.6
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.9	2.6	2.8	0.7	1.5

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	18	9	245	232	0
Future Vol, veh/h	0	18	9	245	232	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	20	10	266	252	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	538	252	252	0	-	0
Stage 1	252	-	-	-	-	-
Stage 2	286	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	508	792	1325	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	503	792	1325	-	-	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1325	-	792	-	-
HCM Lane V/C Ratio	0.007	-	0.025	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	336	274	2	2	4
Future Vol, veh/h	13	336	274	2	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	395	322	2	2	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	324	0	-	0	748
Stage 1	-	-	-	-	323
Stage 2	-	-	-	-	425
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1247	-	-	-	383
Stage 1	-	-	-	-	738
Stage 2	-	-	-	-	664
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1247	-	-	-	377
Mov Cap-2 Maneuver	-	-	-	-	377
Stage 1	-	-	-	-	727
Stage 2	-	-	-	-	664

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1247	-	-	-	554
HCM Lane V/C Ratio	0.012	-	-	-	0.013
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	334	1	0	270	1	2	0	0	1	0	8
Future Vol, veh/h	5	334	1	0	270	1	2	0	0	1	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	393	1	0	318	1	2	0	0	1	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	319	0	0	394	0	0	729	725	394	725	725	319
Stage 1	-	-	-	-	-	-	406	406	-	319	319	-
Stage 2	-	-	-	-	-	-	323	319	-	406	406	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1252	-	-	1176	-	-	341	354	659	343	354	726
Stage 1	-	-	-	-	-	-	626	601	-	697	657	-
Stage 2	-	-	-	-	-	-	693	657	-	626	601	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1252	-	-	1176	-	-	335	352	659	341	352	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	335	352	-	341	352	-
Stage 1	-	-	-	-	-	-	622	597	-	693	657	-
Stage 2	-	-	-	-	-	-	684	657	-	622	597	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	15.8	10.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	335	1252	-	-	1176	-	-	645
HCM Lane V/C Ratio	0.007	0.005	-	-	-	-	-	0.016
HCM Control Delay (s)	15.8	7.9	0	-	0	-	-	10.7
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	256	3	2	144
Future Vol, veh/h	0	3	256	3	2	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	3	284	3	2	160

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	450	286	0	0	287
Stage 1	286	-	-	-	-
Stage 2	164	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	571	758	-	-	1287
Stage 1	767	-	-	-	-
Stage 2	870	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	570	758	-	-	1287
Mov Cap-2 Maneuver	570	-	-	-	-
Stage 1	765	-	-	-	-
Stage 2	870	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	758	1287
HCM Lane V/C Ratio	-	-	0.004	0.002
HCM Control Delay (s)	-	-	9.8	7.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	205	331	224	88	56	121
Future Vol, veh/h	205	331	224	88	56	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	223	360	243	96	61	132

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	339	0	0 1097 291
Stage 1	-	-	- - 291 -
Stage 2	-	-	- - 806 -
Critical Hdwy	4.1	-	- - 6.4 6.2
Critical Hdwy Stg 1	-	-	- - 5.4 -
Critical Hdwy Stg 2	-	-	- - 5.4 -
Follow-up Hdwy	2.2	-	- - 3.5 3.3
Pot Cap-1 Maneuver	1231	-	- - 238 753
Stage 1	-	-	- - 763 -
Stage 2	-	-	- - 443 -
Platoon blocked, %		-	- - -
Mov Cap-1 Maneuver	1231	-	- - 195 753
Mov Cap-2 Maneuver	-	-	- - 195 -
Stage 1	-	-	- - 625 -
Stage 2	-	-	- - 443 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1231	-	-	-	395
HCM Lane V/C Ratio	0.181	-	-	-	0.487
HCM Control Delay (s)	8.6	-	-	-	22.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.7	-	-	-	2.6

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	556	34	129	382	1	34	0	118	2	0	1
Future Vol, veh/h	1	556	34	129	382	1	34	0	118	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	567	35	132	390	1	35	0	120	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	391	0	0	602
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1179	-	-	985
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1179	-	-	985
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	26.6	32.7
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	318	1179	-	-	985	-	-	133
HCM Lane V/C Ratio	0.488	0.001	-	-	0.134	-	-	0.023
HCM Control Delay (s)	26.6	8.1	0	-	9.2	-	-	32.7
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	2.5	0	-	-	0.5	-	-	0.1

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	248	556	28	41	0
Future Vol, veh/h	1	248	556	28	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	276	618	31	46	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	649	0	-	0	912
Stage 1	-	-	-	-	634
Stage 2	-	-	-	-	278
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	919	-	-	-	313
Stage 1	-	-	-	-	586
Stage 2	-	-	-	-	774
Platoon blocked, %	1	-	-	-	1
Mov Cap-1 Maneuver	919	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	313
Stage 1	-	-	-	-	586
Stage 2	-	-	-	-	774

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	919	-	-	-	313
HCM Lane V/C Ratio	0.001	-	-	-	0.146
HCM Control Delay (s)	8.9	0	-	-	18.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

HCM 6th TWSC
 2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	105	51	125	63	53	169
Future Vol, veh/h	105	51	125	63	53	169
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	115	56	137	69	58	186

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	474	172	0	0	206	0
Stage 1	172	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	553	877	-	-	1377	-
Stage 1	863	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	527	877	-	-	1377	-
Mov Cap-2 Maneuver	527	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	606	1377
HCM Lane V/C Ratio	-	-	0.283	0.042
HCM Control Delay (s)	-	-	13.3	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0.1

HCM 6th Signalized Intersection Summary
 3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	83	206	408	105	136	139	
Future Volume (veh/h)	83	206	408	105	136	139	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	94	234	464	119	155	158	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	177	830	543	460	752	669	
Arrive On Green	0.11	0.46	0.30	0.30	0.44	0.44	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	94	234	464	119	155	158	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.4	6.4	19.4	4.7	4.5	5.2	
Cycle Q Clear(g_c), s	4.4	6.4	19.4	4.7	4.5	5.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	177	830	543	460	752	669	
V/C Ratio(X)	0.53	0.28	0.85	0.26	0.21	0.24	
Avail Cap(c_a), veh/h	243	1125	765	648	752	669	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	13.3	26.3	21.2	13.8	14.1	
Incr Delay (d2), s/veh	2.4	0.2	6.8	0.3	0.6	0.8	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.8	2.5	8.9	1.7	1.8	5.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.1	13.5	33.0	21.5	14.5	14.9	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		328	583		313		
Approach Delay, s/veh		20.0	30.7		14.7		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				40.9	39.1	12.8	28.1
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				50.0	22.0	12.0	34.0
Max Q Clear Time (g_c+I1), s				8.4	7.2	6.4	21.4
Green Ext Time (p_c), s				1.5	0.8	0.1	2.7
Intersection Summary							
HCM 6th Ctrl Delay			23.7				
HCM 6th LOS			C				

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↶	↷		↶	↷
Traffic Vol, veh/h	16	369	0	2	577	12	0	0	2	14	0	18
Future Vol, veh/h	16	369	0	2	577	12	0	0	2	14	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	450	0	2	704	15	0	0	2	17	0	22

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	719	0	0	450	0	0	1217	1213	450	1207	1206	712
Stage 1	-	-	-	-	-	-	490	490	-	716	716	-
Stage 2	-	-	-	-	-	-	727	723	-	491	490	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	892	-	-	1121	-	-	159	183	613	162	185	436
Stage 1	-	-	-	-	-	-	564	552	-	424	437	-
Stage 2	-	-	-	-	-	-	419	434	-	563	552	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	892	-	-	1121	-	-	148	179	613	158	181	436
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	179	-	158	181	-
Stage 1	-	-	-	-	-	-	552	540	-	415	436	-
Stage 2	-	-	-	-	-	-	397	433	-	548	540	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.9	21.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	613	892	-	-	1121	-	-	158	436
HCM Lane V/C Ratio	-	0.004	0.022	-	-	0.002	-	-	0.108	0.05
HCM Control Delay (s)	0	10.9	9.1	-	-	8.2	-	-	30.5	13.7
HCM Lane LOS		A	B	A	-	A	-	-	D	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	0.4	0.2

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	2	4	2	179	292	4
Future Vol, veh/h	2	4	2	179	292	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	4	2	201	328	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	535	330	332	0	-	0
Stage 1	330	-	-	-	-	-
Stage 2	205	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	510	716	1239	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	509	716	1239	-	-	-
Mov Cap-2 Maneuver	509	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	834	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1239	-	631	-	-
HCM Lane V/C Ratio	0.002	-	0.011	-	-
HCM Control Delay (s)	7.9	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	8.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	196	137	49	91	60	127
Future Vol, veh/h	196	137	49	91	60	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	218	152	54	101	67	141




Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	380	105	0	0	155	0
Stage 1	105	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	626	955	-	-	1438	-
Stage 1	924	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	594	955	-	-	1438	-
Mov Cap-2 Maneuver	594	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	776	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	703	1438
HCM Lane V/C Ratio	-	-	0.526	0.046
HCM Control Delay (s)	-	-	15.7	7.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.1	0.1

Intersection

Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	153	185	108	147	198	39
Future Vol, veh/h	153	185	108	147	198	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	176	213	124	169	228	45
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.5	12.9	12
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	42%	45%	0%
Vol Thru, %	58%	0%	84%
Vol Right, %	0%	55%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	255	338	237
LT Vol	108	153	0
Through Vol	147	0	198
RT Vol	0	185	39
Lane Flow Rate	293	389	272
Geometry Grp	1	1	1
Degree of Util (X)	0.446	0.557	0.404
Departure Headway (Hd)	5.477	5.159	5.336
Convergence, Y/N	Yes	Yes	Yes
Cap	657	699	673
Service Time	3.517	3.196	3.376
HCM Lane V/C Ratio	0.446	0.557	0.404
HCM Control Delay	12.9	14.5	12
HCM Lane LOS	B	B	B
HCM 95th-tile Q	2.3	3.5	2

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	16	133	121	0	102	280
Future Vol, veh/h	16	133	121	0	102	280
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	153	139	0	117	322

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	695	139	0	0	139	0
Stage 1	139	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	411	915	-	-	1457	-
Stage 1	893	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	371	915	-	-	1457	-
Mov Cap-2 Maneuver	371	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	791	1457
HCM Lane V/C Ratio	-	-	0.217	0.08
HCM Control Delay (s)	-	-	10.8	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0.3

Intersection

Int Delay, s/veh 5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	115	269	298	5	2	293
Future Vol, veh/h	115	269	298	5	2	293
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	140	328	363	6	2	357

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	369	0	0	974	366
Stage 1	-	-	-	366	-
Stage 2	-	-	-	608	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1201	-	-	282	684
Stage 1	-	-	-	706	-
Stage 2	-	-	-	547	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1201	-	-	249	684
Mov Cap-2 Maneuver	-	-	-	249	-
Stage 1	-	-	-	623	-
Stage 2	-	-	-	547	-

Approach

	EB	WB	SB
HCM Control Delay, s	2.5	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1201	-	-	-	676
HCM Lane V/C Ratio	0.117	-	-	-	0.532
HCM Control Delay (s)	8.4	-	-	-	16.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	3.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	11	265	300	112	128	4
Future Vol, veh/h	11	265	300	112	128	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	298	337	126	144	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	463	0	0	659	337
Stage 1	-	-	-	337	-
Stage 2	-	-	-	322	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1109	-	-	432	710
Stage 1	-	-	-	728	-
Stage 2	-	-	-	739	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1109	-	-	427	710
Mov Cap-2 Maneuver	-	-	-	427	-
Stage 1	-	-	-	720	-
Stage 2	-	-	-	739	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1109	-	-	-	432
HCM Lane V/C Ratio	0.011	-	-	-	0.343
HCM Control Delay (s)	8.3	-	-	-	17.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.5

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	129	160	140	40	65	197
Future Vol, veh/h	129	160	140	40	65	197
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	142	176	154	44	71	216
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.4	10.6	10.1
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	78%	0%	0%
Vol Right, %	0%	0%	22%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	160	180	65	197
LT Vol	129	0	0	65	0
Through Vol	0	160	140	0	0
RT Vol	0	0	40	0	197
Lane Flow Rate	142	176	198	71	216
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.234	0.266	0.291	0.125	0.306
Departure Headway (Hd)	5.951	5.446	5.289	6.294	5.083
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	598	652	673	566	701
Service Time	3.74	3.235	3.378	4.073	2.862
HCM Lane V/C Ratio	0.237	0.27	0.294	0.125	0.308
HCM Control Delay	10.6	10.2	10.6	10	10.1
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.9	1.1	1.2	0.4	1.3

HCM 6th TWSC
13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	16	11	143	254	2
Future Vol, veh/h	0	16	11	143	254	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	18	13	163	289	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	479	290	291	0	0
Stage 1	290	-	-	-	-
Stage 2	189	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	549	754	1282	-	-
Stage 1	764	-	-	-	-
Stage 2	848	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	543	754	1282	-	-
Mov Cap-2 Maneuver	543	-	-	-	-
Stage 1	756	-	-	-	-
Stage 2	848	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1282	-	754	-	-
HCM Lane V/C Ratio	0.01	-	0.024	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	230	164	3	2	2
Future Vol, veh/h	1	230	164	3	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	242	173	3	2	2

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	176	0	0	419	175
Stage 1	-	-	-	175	-
Stage 2	-	-	-	244	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1412	-	-	595	874
Stage 1	-	-	-	860	-
Stage 2	-	-	-	801	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1412	-	-	594	874
Mov Cap-2 Maneuver	-	-	-	594	-
Stage 1	-	-	-	859	-
Stage 2	-	-	-	801	-

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1412	-	-	-	707
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.6	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	219	1	1	179	0	0	0	2	0	0	1
Future Vol, veh/h	1	219	1	1	179	0	0	0	2	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	233	1	1	190	0	0	0	2	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	190	0	0	234	0	0	429	428	234	429	428	190
Stage 1	-	-	-	-	-	-	236	236	-	192	192	-
Stage 2	-	-	-	-	-	-	193	192	-	237	236	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1396	-	-	1345	-	-	540	522	810	540	522	857
Stage 1	-	-	-	-	-	-	772	713	-	814	745	-
Stage 2	-	-	-	-	-	-	813	745	-	771	713	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1396	-	-	1345	-	-	538	521	810	538	521	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	538	521	-	538	521	-
Stage 1	-	-	-	-	-	-	771	712	-	813	744	-
Stage 2	-	-	-	-	-	-	811	744	-	768	712	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.5			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	1396	-	-	1345	-	-	857
HCM Lane V/C Ratio	0.003	0.001	-	-	0.001	-	-	0.001
HCM Control Delay (s)	9.5	7.6	0	-	7.7	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	52	27	177	69	1	120
Future Vol, veh/h	52	27	177	69	1	120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	31	206	80	1	140

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	388	246	0	0	286
Stage 1	246	-	-	-	-
Stage 2	142	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	619	798	-	-	1288
Stage 1	800	-	-	-	-
Stage 2	890	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	618	798	-	-	1288
Mov Cap-2 Maneuver	618	-	-	-	-
Stage 1	799	-	-	-	-
Stage 2	890	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	670	1288
HCM Lane V/C Ratio	-	-	0.137	0.001
HCM Control Delay (s)	-	-	11.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0

Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	149	132	151	56	55	160
Future Vol, veh/h	149	132	151	56	55	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	162	143	164	61	60	174

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	225	0	-	0	662
Stage 1	-	-	-	-	195
Stage 2	-	-	-	-	467
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1356	-	-	-	430
Stage 1	-	-	-	-	843
Stage 2	-	-	-	-	635
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1356	-	-	-	379
Mov Cap-2 Maneuver	-	-	-	-	379
Stage 1	-	-	-	-	743
Stage 2	-	-	-	-	635

Approach	EB	WB	SB
HCM Control Delay, s	4.2	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1356	-	-	-	645
HCM Lane V/C Ratio	0.119	-	-	-	0.362
HCM Control Delay (s)	8	-	-	-	13.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.7

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	327	14	34	514	0	27	0	30	3	0	0
Future Vol, veh/h	0	327	14	34	514	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	399	17	41	627	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	627	0	0	416	0	0	1117	1117	408	1135	1125	627
Stage 1	-	-	-	-	-	-	408	408	-	709	709	-
Stage 2	-	-	-	-	-	-	709	709	-	426	416	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	965	-	-	1154	-	-	186	209	648	181	207	487
Stage 1	-	-	-	-	-	-	624	600	-	428	440	-
Stage 2	-	-	-	-	-	-	428	440	-	610	595	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	965	-	-	1154	-	-	181	201	648	166	200	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	201	-	166	200	-
Stage 1	-	-	-	-	-	-	624	600	-	428	424	-
Stage 2	-	-	-	-	-	-	413	424	-	576	595	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			21.1			27.2		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	292	965	-	-	1154	-	-	166
HCM Lane V/C Ratio	0.238	-	-	-	0.036	-	-	0.022
HCM Control Delay (s)	21.1	0	-	-	8.2	-	-	27.2
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	0.1

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	408	347	60	38	1
Future Vol, veh/h	1	408	347	60	38	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	486	413	71	45	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	484	0	937
Stage 1	-	-	449
Stage 2	-	-	488
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1090	-	287
Stage 1	-	-	703
Stage 2	-	-	621
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	1090	-	286
Mov Cap-2 Maneuver	-	-	286
Stage 1	-	-	702
Stage 2	-	-	621

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1090	-	-	-	291
HCM Lane V/C Ratio	0.001	-	-	-	0.16
HCM Control Delay (s)	8.3	0	-	-	19.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

HCM 6th TWSC
2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	75	213	63	69	274
Future Vol, veh/h	79	75	213	63	69	274
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	95	90	257	76	83	330

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	791	295	0	0	333
Stage 1	295	-	-	-	-
Stage 2	496	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	361	749	-	-	1238
Stage 1	760	-	-	-	-
Stage 2	616	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	331	749	-	-	1238
Mov Cap-2 Maneuver	331	-	-	-	-
Stage 1	698	-	-	-	-
Stage 2	616	-	-	-	-

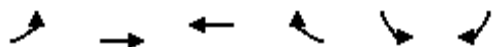
Approach	WB	NB	SB
HCM Control Delay, s	18.3	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	455	1238
HCM Lane V/C Ratio	-	-	0.408	0.067
HCM Control Delay (s)	-	-	18.3	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	88	351	300	187	248	101	
Future Volume (veh/h)	88	351	300	187	248	101	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	104	413	353	220	292	119	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	182	723	430	364	855	760	
Arrive On Green	0.11	0.40	0.24	0.24	0.50	0.50	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	104	413	353	220	292	119	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.9	14.3	14.9	10.3	8.2	3.4	
Cycle Q Clear(g_c), s	4.9	14.3	14.9	10.3	8.2	3.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	182	723	430	364	855	760	
V/C Ratio(X)	0.57	0.57	0.82	0.60	0.34	0.16	
Avail Cap(c_a), veh/h	263	1013	630	534	855	760	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	18.6	28.8	27.1	12.1	10.9	
Incr Delay (d2), s/veh	2.8	0.7	5.6	1.6	1.1	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	5.7	6.8	3.8	3.2	4.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.5	19.3	34.4	28.7	13.2	11.3	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		517	573		411		
Approach Delay, s/veh		22.8	32.2		12.7		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				36.1	43.9	13.0	23.1
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				16.3	10.2	6.9	16.9
Green Ext Time (p_c), s				2.7	1.2	0.1	2.3
Intersection Summary							
HCM 6th Ctrl Delay			23.6				
HCM 6th LOS			C				

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	736	2	5	556	44	3	0	1	38	1	46
Future Vol, veh/h	35	736	2	5	556	44	3	0	1	38	1	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	37	775	2	5	585	46	3	0	1	40	1	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	631	0	0	777	0	0	1493	1491	776	1469	1469	608
Stage 1	-	-	-	-	-	-	850	850	-	618	618	-
Stage 2	-	-	-	-	-	-	643	641	-	851	851	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	961	-	-	848	-	-	103	125	401	107	129	499
Stage 1	-	-	-	-	-	-	358	380	-	480	484	-
Stage 2	-	-	-	-	-	-	465	473	-	358	379	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	961	-	-	848	-	-	89	119	401	103	123	499
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	119	-	103	123	-
Stage 1	-	-	-	-	-	-	344	365	-	461	481	-
Stage 2	-	-	-	-	-	-	416	470	-	343	364	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			38.7			35.2		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	89	401	961	-	-	848	-	-	103	499
HCM Lane V/C Ratio	0.035	0.003	0.038	-	-	0.006	-	-	0.399	0.097
HCM Control Delay (s)	46.9	14	8.9	-	-	9.3	-	-	61.4	13
HCM Lane LOS	E	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	1.6	0.3

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	714	528	111	144	77
Future Volume (veh/h)	60	714	528	111	144	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	65	776	574	121	157	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	155	1192	931	789	385	362
Arrive On Green	0.10	0.66	0.52	0.52	0.24	0.24
Sat Flow, veh/h	1619	1800	1800	1525	1619	1525
Grp Volume(v), veh/h	65	776	574	121	157	84
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1619	1525
Q Serve(g_s), s	3.0	20.5	18.1	3.3	6.6	3.6
Cycle Q Clear(g_c), s	3.0	20.5	18.1	3.3	6.6	3.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	155	1193	931	789	385	362
V/C Ratio(X)	0.42	0.65	0.62	0.15	0.41	0.23
Avail Cap(c_a), veh/h	202	1193	931	789	385	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	8.0	13.7	10.1	25.8	24.6
Incr Delay (d2), s/veh	1.8	2.8	3.1	0.4	3.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.2	7.4	1.1	2.8	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.9	10.8	16.8	10.5	28.9	26.1
LnGrp LOS	D	B	B	B	C	C
Approach Vol, veh/h		841	695		241	
Approach Delay, s/veh		12.7	15.7		28.0	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	11.6	45.4
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		22.5		8.6	5.0	20.1
Green Ext Time (p_c), s		6.5		0.5	0.0	4.1
Intersection Summary						
HCM 6th Ctrl Delay			15.9			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	20	21	269	255	3
Future Vol, veh/h	1	20	21	269	255	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	21	22	280	266	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	592	268	269	0	0
Stage 1	268	-	-	-	-
Stage 2	324	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	472	776	1306	-	-
Stage 1	782	-	-	-	-
Stage 2	738	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	463	776	1306	-	-
Mov Cap-2 Maneuver	463	-	-	-	-
Stage 1	766	-	-	-	-
Stage 2	738	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1306	-	752	-	-
HCM Lane V/C Ratio	0.017	-	0.029	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	9.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	218	137	80	166	69	149
Future Vol, veh/h	218	137	80	166	69	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	229	144	84	175	73	157

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	475	172	0	0	259
Stage 1	172	-	-	-	-
Stage 2	303	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	552	877	-	-	1317
Stage 1	863	-	-	-	-
Stage 2	754	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	518	877	-	-	1317
Mov Cap-2 Maneuver	518	-	-	-	-
Stage 1	810	-	-	-	-
Stage 2	754	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.5	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	615	1317
HCM Lane V/C Ratio	-	-	0.608	0.055
HCM Control Delay (s)	-	-	19.5	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2

Intersection

Intersection Delay, s/veh	28.7
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	191	198	213	324	246	46
Future Vol, veh/h	191	198	213	324	246	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	199	206	222	338	256	48
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	21.8	40.7	15.7
HCM LOS	C	E	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	49%	0%
Vol Thru, %	60%	0%	84%
Vol Right, %	0%	51%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	537	389	292
LT Vol	213	191	0
Through Vol	324	0	246
RT Vol	0	198	46
Lane Flow Rate	559	405	304
Geometry Grp	1	1	1
Degree of Util (X)	0.902	0.692	0.52
Departure Headway (Hd)	5.932	6.145	6.157
Convergence, Y/N	Yes	Yes	Yes
Cap	615	592	587
Service Time	3.932	4.145	4.185
HCM Lane V/C Ratio	0.909	0.684	0.518
HCM Control Delay	40.7	21.8	15.7
HCM Lane LOS	E	C	C
HCM 95th-tile Q	11.1	5.4	3

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	158	386	0	124	320
Future Vol, veh/h	1	158	386	0	124	320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	163	398	0	128	330

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	984	398	0	0	398
Stage 1	398	-	-	-	-
Stage 2	586	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	278	656	-	-	1172
Stage 1	683	-	-	-	-
Stage 2	560	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	241	656	-	-	1172
Mov Cap-2 Maneuver	241	-	-	-	-
Stage 1	591	-	-	-	-
Stage 2	560	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	649	1172
HCM Lane V/C Ratio	-	-	0.253	0.109
HCM Control Delay (s)	-	-	12.4	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.4

Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	379	479	328	1	4	315
Future Vol, veh/h	379	479	328	1	4	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	399	504	345	1	4	332

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	346	0	0 1648 346
Stage 1	-	-	- 346 -
Stage 2	-	-	- 1302 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1224	-	- 110 702
Stage 1	-	-	- 721 -
Stage 2	-	-	- 257 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1224	-	- 74 702
Mov Cap-2 Maneuver	-	-	- 74 -
Stage 1	-	-	- 486 -
Stage 2	-	-	- 257 -

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1224	-	-	-	634
HCM Lane V/C Ratio	0.326	-	-	-	0.53
HCM Control Delay (s)	9.4	-	-	-	16.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1.4	-	-	-	3.1

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	478	339	178	129	7
Future Vol, veh/h	7	478	339	178	129	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	525	373	196	142	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	569	0	-	0	914 373
Stage 1	-	-	-	-	373 -
Stage 2	-	-	-	-	541 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1013	-	-	-	306 678
Stage 1	-	-	-	-	701 -
Stage 2	-	-	-	-	588 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1013	-	-	-	304 678
Mov Cap-2 Maneuver	-	-	-	-	304 -
Stage 1	-	-	-	-	695 -
Stage 2	-	-	-	-	588 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1013	-	-	-	313
HCM Lane V/C Ratio	0.008	-	-	-	0.477
HCM Control Delay (s)	8.6	-	-	-	26.6
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.4

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	229	301	217	99	86	201
Future Vol, veh/h	229	301	217	99	86	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	252	331	238	109	95	221
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.2	16.2	12.4
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	301	316	86	201
LT Vol	229	0	0	86	0
Through Vol	0	301	217	0	0
RT Vol	0	0	99	0	201
Lane Flow Rate	252	331	347	95	221
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.453	0.549	0.563	0.193	0.376
Departure Headway (Hd)	6.482	5.975	5.837	7.355	6.133
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	556	602	618	488	585
Service Time	4.227	3.72	3.88	5.105	3.883
HCM Lane V/C Ratio	0.453	0.55	0.561	0.195	0.378
HCM Control Delay	14.5	15.8	16.2	11.9	12.6
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.3	3.3	3.5	0.7	1.7

HCM 6th TWSC
13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	25	18	258	242	0
Future Vol, veh/h	0	25	18	258	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	27	20	280	263	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	583	263	263	0	0
Stage 1	263	-	-	-	-
Stage 2	320	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	478	781	1313	-	-
Stage 1	786	-	-	-	-
Stage 2	741	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	469	781	1313	-	-
Mov Cap-2 Maneuver	469	-	-	-	-
Stage 1	772	-	-	-	-
Stage 2	741	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1313	-	781	-	-
HCM Lane V/C Ratio	0.015	-	0.035	-	-
HCM Control Delay (s)	7.8	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
 14: SR-189 & Rocky Point Rd.

08/18/2017

Intersection

Int Delay, s/veh 0.4

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	20	358	291	2	2	9
Future Vol, veh/h	20	358	291	2	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	421	342	2	2	11

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	344	0	-	0	812	343
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	469	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1226	-	-	-	351	704
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	634	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1226	-	-	-	342	704
Mov Cap-2 Maneuver	-	-	-	-	342	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	634	-

Approach EB WB SB

HCM Control Delay, s	0.4	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1226	-	-	-	590
HCM Lane V/C Ratio	0.019	-	-	-	0.022
HCM Control Delay (s)	8	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	347	8	0	280	1	7	0	0	1	0	11
Future Vol, veh/h	9	347	8	0	280	1	7	0	0	1	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	408	9	0	329	1	8	0	0	1	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	330	0	0	417	0	0	771	765	413	765	769	330
Stage 1	-	-	-	-	-	-	435	435	-	330	330	-
Stage 2	-	-	-	-	-	-	336	330	-	435	439	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1241	-	-	1153	-	-	320	336	643	323	334	716
Stage 1	-	-	-	-	-	-	604	584	-	687	649	-
Stage 2	-	-	-	-	-	-	682	649	-	604	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1241	-	-	1153	-	-	311	332	643	320	330	716
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	332	-	320	330	-
Stage 1	-	-	-	-	-	-	597	577	-	679	649	-
Stage 2	-	-	-	-	-	-	670	649	-	597	575	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	16.9	10.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	311	1241	-	-	1153	-	-	649
HCM Lane V/C Ratio	0.026	0.009	-	-	-	-	-	0.022
HCM Control Delay (s)	16.9	7.9	0	-	0	-	-	10.7
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	9	3	267	14	2	153
Future Vol, veh/h	9	3	267	14	2	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	3	297	16	2	170

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	479	305	0	0	313
Stage 1	305	-	-	-	-
Stage 2	174	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	549	740	-	-	1259
Stage 1	752	-	-	-	-
Stage 2	861	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	548	740	-	-	1259
Mov Cap-2 Maneuver	548	-	-	-	-
Stage 1	750	-	-	-	-
Stage 2	861	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	586	1259
HCM Lane V/C Ratio	-	-	0.023	0.002
HCM Control Delay (s)	-	-	11.3	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	238	342	233	88	56	147
Future Vol, veh/h	238	342	233	88	56	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	259	372	253	96	61	160

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	349	0	0 1191 301
Stage 1	-	-	- 301 -
Stage 2	-	-	- 890 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1221	-	- 209 743
Stage 1	-	-	- 755 -
Stage 2	-	-	- 404 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	1221	-	- 165 743
Mov Cap-2 Maneuver	-	-	- 165 -
Stage 1	-	-	- 595 -
Stage 2	-	-	- 404 -

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	27
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1221	-	-	-	378
HCM Lane V/C Ratio	0.212	-	-	-	0.584
HCM Control Delay (s)	8.7	-	-	-	27
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.8	-	-	-	3.6

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	599	34	129	437	1	34	0	118	2	0	1
Future Vol, veh/h	1	599	34	129	437	1	34	0	118	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	611	35	132	446	1	35	0	120	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	447	0	0	646	0	0	1342	1342	629	1402	1359	447
Stage 1	-	-	-	-	-	-	631	631	-	711	711	-
Stage 2	-	-	-	-	-	-	711	711	-	691	648	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1124	-	-	949	-	-	131	154	486	119	150	616
Stage 1	-	-	-	-	-	-	472	477	-	427	439	-
Stage 2	-	-	-	-	-	-	427	439	-	438	469	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1124	-	-	949	-	-	117	132	486	80	129	616
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	132	-	80	129	-
Stage 1	-	-	-	-	-	-	472	477	-	427	378	-
Stage 2	-	-	-	-	-	-	367	378	-	329	469	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.1			31.7			37.7		
HCM LOS							D			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	285	1124	-	-	949	-	-	113
HCM Lane V/C Ratio	0.544	0.001	-	-	0.139	-	-	0.027
HCM Control Delay (s)	31.7	8.2	0	-	9.4	-	-	37.7
HCM Lane LOS	D	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	3	0	-	-	0.5	-	-	0.1

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	258	566	38	51	0
Future Vol, veh/h	1	258	566	38	51	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	287	629	42	57	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	671	0	-	0	939 650
Stage 1	-	-	-	-	650 -
Stage 2	-	-	-	-	289 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	903	-	-	-	*301 *607
Stage 1	-	-	-	-	*572 -
Stage 2	-	-	-	-	*765 -
Platoon blocked, %	1	-	-	-	1 1
Mov Cap-1 Maneuver	903	-	-	-	*300 *607
Mov Cap-2 Maneuver	-	-	-	-	*300 -
Stage 1	-	-	-	-	*572 -
Stage 2	-	-	-	-	*765 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	903	-	-	-	300
HCM Lane V/C Ratio	0.001	-	-	-	0.189
HCM Control Delay (s)	9	0	-	-	19.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	105	51	155	63	53	198
Future Vol, veh/h	105	51	155	63	53	198
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	115	56	170	69	58	218

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	539	205	0	0	239
Stage 1	205	-	-	-	-
Stage 2	334	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	507	841	-	-	1340
Stage 1	834	-	-	-	-
Stage 2	730	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	482	841	-	-	1340
Mov Cap-2 Maneuver	482	-	-	-	-
Stage 1	793	-	-	-	-
Stage 2	730	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	560	1340
HCM Lane V/C Ratio	-	-	0.306	0.043
HCM Control Delay (s)	-	-	14.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1

HCM 6th Signalized Intersection Summary
 3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	83	226	428	135	165	139	
Future Volume (veh/h)	83	226	428	135	165	139	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	94	257	486	153	188	158	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	177	855	568	481	728	648	
Arrive On Green	0.11	0.48	0.32	0.32	0.42	0.42	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	94	257	486	153	188	158	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.4	7.0	20.3	6.1	5.7	5.3	
Cycle Q Clear(g_c), s	4.4	7.0	20.3	6.1	5.7	5.3	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	177	855	568	481	728	648	
V/C Ratio(X)	0.53	0.30	0.86	0.32	0.26	0.24	
Avail Cap(c_a), veh/h	223	1125	788	667	728	648	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	12.9	25.7	20.8	14.9	14.8	
Incr Delay (d2), s/veh	2.4	0.2	6.8	0.4	0.9	0.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.8	2.7	9.3	2.1	2.3	5.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.1	13.1	32.5	21.2	15.7	15.7	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		351	639		346		
Approach Delay, s/veh		19.2	29.8		15.7		
Approach LOS		B	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				42.0	38.0	12.8	29.2
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				50.0	22.0	11.0	35.0
Max Q Clear Time (g_c+I1), s				9.0	7.7	6.4	22.3
Green Ext Time (p_c), s				1.6	0.9	0.1	3.0
Intersection Summary							
HCM 6th Ctrl Delay			23.4				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	418	0	2	627	32	0	0	2	34	0	18
Future Vol, veh/h	16	418	0	2	627	32	0	0	2	34	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	510	0	2	765	39	0	0	2	41	0	22

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	804	0	0	510
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	829	-	-	1065
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	829	-	-	1065
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	11.4	35.2
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	567	829	-	-	1065	-	-	128	396
HCM Lane V/C Ratio	-	0.004	0.024	-	-	0.002	-	-	0.324	0.055
HCM Control Delay (s)	-	0	11.4	9.4	-	8.4	-	-	46.1	14.6
HCM Lane LOS	-	A	B	A	-	A	-	-	E	B
HCM 95th %tile Q(veh)	-	-	0	0.1	-	0	-	-	1.3	0.2

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	68	385	591	127	130	70
Future Volume (veh/h)	68	385	591	127	130	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	74	418	642	138	141	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	163	1192	921	780	385	362
Arrive On Green	0.10	0.66	0.51	0.51	0.24	0.24
Sat Flow, veh/h	1619	1800	1800	1525	1619	1525
Grp Volume(v), veh/h	74	418	642	138	141	76
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1619	1525
Q Serve(g_s), s	3.4	8.2	21.7	3.9	5.8	3.2
Cycle Q Clear(g_c), s	3.4	8.2	21.7	3.9	5.8	3.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	163	1193	921	780	385	362
V/C Ratio(X)	0.45	0.35	0.70	0.18	0.37	0.21
Avail Cap(c_a), veh/h	202	1193	921	780	385	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	5.9	14.8	10.5	25.5	24.5
Incr Delay (d2), s/veh	2.0	0.8	4.4	0.5	2.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.8	9.1	1.3	2.5	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	6.7	19.2	11.0	28.2	25.8
LnGrp LOS	D	A	B	B	C	C
Approach Vol, veh/h		492	780		217	
Approach Delay, s/veh		11.1	17.7		27.3	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	12.1	44.9
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		10.2		7.8	5.4	23.7
Green Ext Time (p_c), s		2.9		0.5	0.0	4.4
Intersection Summary						
HCM 6th Ctrl Delay			16.9			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	2	16	14	191	304	4
Future Vol, veh/h	2	16	14	191	304	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	18	16	215	342	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	591	344	346	0	-	0
Stage 1	344	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	473	703	1224	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	466	703	1224	-	-	-
Mov Cap-2 Maneuver	466	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1224	-	665	-	-
HCM Lane V/C Ratio	0.013	-	0.03	-	-
HCM Control Delay (s)	8	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	9.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	219	137	55	115	60	133
Future Vol, veh/h	219	137	55	115	60	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	243	152	61	128	67	148

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	407	125	0	0	189	0
Stage 1	125	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	604	931	-	-	1397	-
Stage 1	906	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	573	931	-	-	1397	-
Mov Cap-2 Maneuver	573	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	673	1397
HCM Lane V/C Ratio	-	-	0.588	0.048
HCM Control Delay (s)	-	-	17.7	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.9	0.1

Intersection

Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	153	214	138	197	247	39
Future Vol, veh/h	153	214	138	197	247	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	176	246	159	226	284	45
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	18.6	17.8	14.9
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	41%	42%	0%
Vol Thru, %	59%	0%	86%
Vol Right, %	0%	58%	14%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	335	367	286
LT Vol	138	153	0
Through Vol	197	0	247
RT Vol	0	214	39
Lane Flow Rate	385	422	329
Geometry Grp	1	1	1
Degree of Util (X)	0.618	0.653	0.522
Departure Headway (Hd)	5.782	5.569	5.718
Convergence, Y/N	Yes	Yes	Yes
Cap	620	645	628
Service Time	3.852	3.635	3.791
HCM Lane V/C Ratio	0.621	0.654	0.524
HCM Control Delay	17.8	18.6	14.9
HCM Lane LOS	C	C	B
HCM 95th-tile Q	4.2	4.8	3

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	16	133	201	0	102	358
Future Vol, veh/h	16	133	201	0	102	358
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	153	231	0	117	411

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	876	231	0	0	231	0
Stage 1	231	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	322	813	-	-	1349	-
Stage 1	812	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	286	813	-	-	1349	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	679	1349
HCM Lane V/C Ratio	-	-	0.252	0.087
HCM Control Delay (s)	-	-	12.1	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.3

Intersection						
Int Delay, s/veh	8.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	195	319	347	5	2	371
Future Vol, veh/h	195	319	347	5	2	371
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	238	389	423	6	2	452

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	429	0	-	0	1291
Stage 1	-	-	-	-	426
Stage 2	-	-	-	-	865
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1141	-	-	-	182
Stage 1	-	-	-	-	663
Stage 2	-	-	-	-	416
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1141	-	-	-	144
Mov Cap-2 Maneuver	-	-	-	-	144
Stage 1	-	-	-	-	524
Stage 2	-	-	-	-	416

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	24.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1141	-	-	-	622
HCM Lane V/C Ratio	0.208	-	-	-	0.731
HCM Control Delay (s)	9	-	-	-	24.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.8	-	-	-	6.3

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	315	349	112	128	4
Future Vol, veh/h	11	315	349	112	128	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	354	392	126	144	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	518	0	-	0	770
Stage 1	-	-	-	-	392
Stage 2	-	-	-	-	378
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1058	-	-	-	372
Stage 1	-	-	-	-	687
Stage 2	-	-	-	-	697
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1058	-	-	-	368
Mov Cap-2 Maneuver	-	-	-	-	368
Stage 1	-	-	-	-	679
Stage 2	-	-	-	-	697

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	20.9
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1058	-	-	-	373
HCM Lane V/C Ratio	0.012	-	-	-	0.398
HCM Control Delay (s)	8.4	-	-	-	20.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	149	190	169	40	65	217
Future Vol, veh/h	149	190	169	40	65	217
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	164	209	186	44	71	238
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.2	11.6	10.9
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	190	209	65	217
LT Vol	149	0	0	65	0
Through Vol	0	190	169	0	0
RT Vol	0	0	40	0	217
Lane Flow Rate	164	209	230	71	238
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.281	0.329	0.355	0.131	0.357
Departure Headway (Hd)	6.182	5.677	5.56	6.607	5.393
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	583	635	648	544	668
Service Time	3.906	3.4	3.584	4.333	3.119
HCM Lane V/C Ratio	0.281	0.329	0.355	0.131	0.356
HCM Control Delay	11.3	11.2	11.6	10.3	11.1
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.1	1.4	1.6	0.4	1.6

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	24	19	155	266	2
Future Vol, veh/h	0	24	19	155	266	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	27	22	176	302	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	523	303	304	0	0
Stage 1	303	-	-	-	-
Stage 2	220	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	518	741	1268	-	-
Stage 1	754	-	-	-	-
Stage 2	821	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	508	741	1268	-	-
Mov Cap-2 Maneuver	508	-	-	-	-
Stage 1	740	-	-	-	-
Stage 2	821	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1268	-	741	-	-
HCM Lane V/C Ratio	0.017	-	0.037	-	-
HCM Control Delay (s)	7.9	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	250	184	3	2	8
Future Vol, veh/h	7	250	184	3	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	263	194	3	2	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	197	0	0	473	196
Stage 1	-	-	-	196	-
Stage 2	-	-	-	277	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1388	-	-	553	850
Stage 1	-	-	-	842	-
Stage 2	-	-	-	774	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1388	-	-	550	850
Mov Cap-2 Maneuver	-	-	-	550	-
Stage 1	-	-	-	837	-
Stage 2	-	-	-	774	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.2	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1388	-	-	-	766
HCM Lane V/C Ratio	0.005	-	-	-	0.014
HCM Control Delay (s)	7.6	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	231	7	1	191	0	6	0	2	0	0	5
Future Vol, veh/h	5	231	7	1	191	0	6	0	2	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	246	7	1	203	0	6	0	2	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	203	0	0	253	0	0	468	465	250	466	468	203
Stage 1	-	-	-	-	-	-	260	260	-	205	205	-
Stage 2	-	-	-	-	-	-	208	205	-	261	263	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1381	-	-	1324	-	-	509	498	794	510	496	843
Stage 1	-	-	-	-	-	-	749	697	-	802	736	-
Stage 2	-	-	-	-	-	-	799	736	-	748	694	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1381	-	-	1324	-	-	504	496	794	507	494	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	504	496	-	507	494	-
Stage 1	-	-	-	-	-	-	746	694	-	799	735	-
Stage 2	-	-	-	-	-	-	793	735	-	743	691	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	11.6	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	555	1381	-	-	1324	-	-	843
HCM Lane V/C Ratio	0.015	0.004	-	-	0.001	-	-	0.006
HCM Control Delay (s)	11.6	7.6	0	-	7.7	0	-	9.3
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	62	27	187	79	1	130
Future Vol, veh/h	62	27	187	79	1	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	72	31	217	92	1	151

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	416	263	0	0	309
Stage 1	263	-	-	-	-
Stage 2	153	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	597	781	-	-	1263
Stage 1	786	-	-	-	-
Stage 2	880	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	596	781	-	-	1263
Mov Cap-2 Maneuver	596	-	-	-	-
Stage 1	785	-	-	-	-
Stage 2	880	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	642	1263
HCM Lane V/C Ratio	-	-	0.161	0.001
HCM Control Delay (s)	-	-	11.7	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	6.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	179	142	161	56	55	189
Future Vol, veh/h	179	142	161	56	55	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	195	154	175	61	60	205

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	236	0	-	0	750
Stage 1	-	-	-	-	206
Stage 2	-	-	-	-	544
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1343	-	-	-	382
Stage 1	-	-	-	-	833
Stage 2	-	-	-	-	586
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1343	-	-	-	327
Mov Cap-2 Maneuver	-	-	-	-	327
Stage 1	-	-	-	-	712
Stage 2	-	-	-	-	586

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1343	-	-	-	621
HCM Lane V/C Ratio	0.145	-	-	-	0.427
HCM Control Delay (s)	8.1	-	-	-	15
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.1

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	376	14	34	564	0	27	0	30	3	0	0
Future Vol, veh/h	0	376	14	34	564	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	459	17	41	688	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	688	0	0	476	0	0	1238	1238	468	1256	1246	688
Stage 1	-	-	-	-	-	-	468	468	-	770	770	-
Stage 2	-	-	-	-	-	-	770	770	-	486	476	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	916	-	-	1097	-	-	154	177	599	150	175	450
Stage 1	-	-	-	-	-	-	579	565	-	396	413	-
Stage 2	-	-	-	-	-	-	396	413	-	566	560	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	916	-	-	1097	-	-	150	170	599	137	169	450
Mov Cap-2 Maneuver	-	-	-	-	-	-	150	170	-	137	169	-
Stage 1	-	-	-	-	-	-	579	565	-	396	398	-
Stage 2	-	-	-	-	-	-	381	398	-	531	560	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	25.1	32
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	248	916	-	-	1097	-	-	137
HCM Lane V/C Ratio	0.28	-	-	-	0.038	-	-	0.027
HCM Control Delay (s)	25.1	0	-	-	8.4	-	-	32
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	404	340	50	29	1
Future Vol, veh/h	1	404	340	50	29	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	481	405	60	35	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	465	0	-	0	918
Stage 1	-	-	-	-	435
Stage 2	-	-	-	-	483
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1114	-	-	-	297
Stage 1	-	-	-	-	717
Stage 2	-	-	-	-	625
Platoon blocked, %	1	-	-	-	1
Mov Cap-1 Maneuver	1114	-	-	-	297
Mov Cap-2 Maneuver	-	-	-	-	297
Stage 1	-	-	-	-	716
Stage 2	-	-	-	-	625

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1114	-	-	-	303
HCM Lane V/C Ratio	0.001	-	-	-	0.118
HCM Control Delay (s)	8.2	0	-	-	18.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

HCM 6th TWSC
 2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	76	182	64	70	252
Future Vol, veh/h	80	76	182	64	70	252
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	96	92	219	77	84	304

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	730	258	0	0	296
Stage 1	258	-	-	-	-
Stage 2	472	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	392	786	-	-	1277
Stage 1	790	-	-	-	-
Stage 2	632	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	361	786	-	-	1277
Mov Cap-2 Maneuver	361	-	-	-	-
Stage 1	728	-	-	-	-
Stage 2	632	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	490	1277
HCM Lane V/C Ratio	-	-	0.384	0.066
HCM Control Delay (s)	-	-	16.8	8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.8	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	89	337	281	155	224	102	
Future Volume (veh/h)	89	337	281	155	224	102	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	105	396	331	182	264	120	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	183	699	406	344	877	780	
Arrive On Green	0.11	0.39	0.23	0.23	0.51	0.51	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	105	396	331	182	264	120	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.9	13.8	14.0	8.4	7.1	3.3	
Cycle Q Clear(g_c), s	4.9	13.8	14.0	8.4	7.1	3.3	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	183	699	406	344	877	780	
V/C Ratio(X)	0.57	0.57	0.81	0.53	0.30	0.15	
Avail Cap(c_a), veh/h	263	1013	630	534	877	780	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	19.2	29.4	27.2	11.3	10.4	
Incr Delay (d2), s/veh	2.8	0.7	4.7	1.3	0.9	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	5.6	6.3	3.1	2.7	4.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.5	19.9	34.1	28.5	12.2	10.8	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		501	513		384		
Approach Delay, s/veh		23.4	32.1		11.7		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				35.1	44.9	13.0	22.1
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				15.8	9.1	6.9	16.0
Green Ext Time (p_c), s				2.6	1.1	0.1	2.1
Intersection Summary							
HCM 6th Ctrl Delay			23.4				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↶	↷		↶	↷
Traffic Vol, veh/h	35	698	2	5	505	22	3	0	1	21	1	46
Future Vol, veh/h	35	698	2	5	505	22	3	0	1	21	1	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	37	735	2	5	532	23	3	0	1	22	1	48

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	555	0	0	737
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1026	-	-	878
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1026	-	-	878
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	33.4	21.6
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	106	422	1026	-	-	878	-	-	123	543
HCM Lane V/C Ratio	0.03	0.002	0.036	-	-	0.006	-	-	0.188	0.089
HCM Control Delay (s)	40	13.6	8.6	-	-	9.1	-	-	40.9	12.3
HCM Lane LOS	E	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	0.7	0.3

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	10	8	258	246	3
Future Vol, veh/h	1	10	8	258	246	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	10	8	269	256	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	543	258	259	0	0
Stage 1	258	-	-	-	-
Stage 2	285	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	504	786	1317	-	-
Stage 1	790	-	-	-	-
Stage 2	768	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	500	786	1317	-	-
Mov Cap-2 Maneuver	500	-	-	-	-
Stage 1	784	-	-	-	-
Stage 2	768	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1317	-	747	-	-
HCM Lane V/C Ratio	0.006	-	0.015	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	8.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	199	138	73	141	69	145
Future Vol, veh/h	199	138	73	141	69	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	209	145	77	148	73	153

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	450	151	0	0	225	0
Stage 1	151	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	571	901	-	-	1356	-
Stage 1	882	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	540	901	-	-	1356	-
Mov Cap-2 Maneuver	540	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	757	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	646	1356
HCM Lane V/C Ratio	-	-	0.549	0.054
HCM Control Delay (s)	-	-	17.1	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.3	0.2

Intersection

Intersection Delay, s/veh	18.1
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	192	173	181	270	204	46
Future Vol, veh/h	192	173	181	270	204	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	200	180	189	281	213	48
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.9	22	12.7
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	53%	0%
Vol Thru, %	60%	0%	82%
Vol Right, %	0%	47%	18%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	451	365	250
LT Vol	181	192	0
Through Vol	270	0	204
RT Vol	0	173	46
Lane Flow Rate	470	380	260
Geometry Grp	1	1	1
Degree of Util (X)	0.725	0.599	0.412
Departure Headway (Hd)	5.554	5.674	5.69
Convergence, Y/N	Yes	Yes	Yes
Cap	648	635	630
Service Time	3.611	3.734	3.758
HCM Lane V/C Ratio	0.725	0.598	0.413
HCM Control Delay	22	16.9	12.7
HCM Lane LOS	C	C	B
HCM 95th-tile Q	6.2	4	2

Intersection

Int Delay, s/veh 3.4

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations						
Traffic Vol, veh/h	1	159	300	0	125	253
Future Vol, veh/h	1	159	300	0	125	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	164	309	0	129	261

Major/Minor Minor1 Major1 Major2

Conflicting Flow All	828	309	0	0	309	0
Stage 1	309	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	344	736	-	-	1263	-
Stage 1	749	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	303	736	-	-	1263	-
Mov Cap-2 Maneuver	303	-	-	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	601	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s 11.4 0 2.7
 HCM LOS B

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	729	1263	-
HCM Lane V/C Ratio	-	-	0.226	0.102	-
HCM Control Delay (s)	-	-	11.4	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.3	-

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	293	427	287	1	4	249
Future Vol, veh/h	293	427	287	1	4	249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	308	449	302	1	4	262

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	303	0	0
Stage 1	-	-	303
Stage 2	-	-	1065
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1269	-	163
Stage 1	-	-	754
Stage 2	-	-	334
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1269	-	123
Mov Cap-2 Maneuver	-	-	123
Stage 1	-	-	571
Stage 2	-	-	334

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	686
HCM Lane V/C Ratio	0.243	-	-	-	0.388
HCM Control Delay (s)	8.7	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	1	-	-	-	1.8

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	427	299	180	130	7
Future Vol, veh/h	7	427	299	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	469	329	198	143	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	527	0	-	0	814 329
Stage 1	-	-	-	-	329 -
Stage 2	-	-	-	-	485 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1050	-	-	-	350 717
Stage 1	-	-	-	-	734 -
Stage 2	-	-	-	-	623 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1050	-	-	-	347 717
Mov Cap-2 Maneuver	-	-	-	-	347 -
Stage 1	-	-	-	-	728 -
Stage 2	-	-	-	-	623 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	22.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1050	-	-	-	356
HCM Lane V/C Ratio	0.007	-	-	-	0.423
HCM Control Delay (s)	8.5	-	-	-	22.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	208	269	192	99	86	184
Future Vol, veh/h	208	269	192	99	86	184
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	229	296	211	109	95	202
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.6	14.4	11.6
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	66%	0%	0%
Vol Right, %	0%	0%	34%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	269	291	86	184
LT Vol	208	0	0	86	0
Through Vol	0	269	192	0	0
RT Vol	0	0	99	0	184
Lane Flow Rate	229	296	320	95	202
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.403	0.48	0.504	0.188	0.333
Departure Headway (Hd)	6.347	5.84	5.675	7.152	5.933
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	567	618	636	502	605
Service Time	4.081	3.574	3.709	4.896	3.676
HCM Lane V/C Ratio	0.404	0.479	0.503	0.189	0.334
HCM Control Delay	13.3	13.9	14.4	11.6	11.6
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.9	2.6	2.8	0.7	1.5

HCM 6th TWSC
13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	18	9	246	233	0
Future Vol, veh/h	0	18	9	246	233	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	20	10	267	253	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	540	253	253	0	-	0
Stage 1	253	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	506	791	1324	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	501	791	1324	-	-	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1324	-	791	-	-
HCM Lane V/C Ratio	0.007	-	0.025	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	336	274	2	2	4
Future Vol, veh/h	13	336	274	2	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	395	322	2	2	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	324	0	-	0	748
Stage 1	-	-	-	-	323
Stage 2	-	-	-	-	425
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1247	-	-	-	383
Stage 1	-	-	-	-	738
Stage 2	-	-	-	-	664
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1247	-	-	-	377
Mov Cap-2 Maneuver	-	-	-	-	377
Stage 1	-	-	-	-	727
Stage 2	-	-	-	-	664

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1247	-	-	-	554
HCM Lane V/C Ratio	0.012	-	-	-	0.013
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	334	1	0	270	1	2	0	0	1	0	8
Future Vol, veh/h	5	334	1	0	270	1	2	0	0	1	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	393	1	0	318	1	2	0	0	1	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	319	0	0	394	0	0	729	725	394	725	725	319
Stage 1	-	-	-	-	-	-	406	406	-	319	319	-
Stage 2	-	-	-	-	-	-	323	319	-	406	406	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1252	-	-	1176	-	-	341	354	659	343	354	726
Stage 1	-	-	-	-	-	-	626	601	-	697	657	-
Stage 2	-	-	-	-	-	-	693	657	-	626	601	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1252	-	-	1176	-	-	335	352	659	341	352	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	335	352	-	341	352	-
Stage 1	-	-	-	-	-	-	622	597	-	693	657	-
Stage 2	-	-	-	-	-	-	684	657	-	622	597	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	15.8	10.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	335	1252	-	-	1176	-	-	645
HCM Lane V/C Ratio	0.007	0.005	-	-	-	-	-	0.016
HCM Control Delay (s)	15.8	7.9	0	-	0	-	-	10.7
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	257	3	2	145
Future Vol, veh/h	0	3	257	3	2	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	3	286	3	2	161

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	453	288	0	0	289
Stage 1	288	-	-	-	-
Stage 2	165	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	568	756	-	-	1284
Stage 1	766	-	-	-	-
Stage 2	869	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	567	756	-	-	1284
Mov Cap-2 Maneuver	567	-	-	-	-
Stage 1	764	-	-	-	-
Stage 2	869	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	756	1284
HCM Lane V/C Ratio	-	-	0.004	0.002
HCM Control Delay (s)	-	-	9.8	7.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	5.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	208	335	228	89	57	124
Future Vol, veh/h	208	335	228	89	57	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	226	364	248	97	62	135

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	345	0	-	0	1113 297
Stage 1	-	-	-	-	297 -
Stage 2	-	-	-	-	816 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1225	-	-	-	233 747
Stage 1	-	-	-	-	758 -
Stage 2	-	-	-	-	438 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1225	-	-	-	190 747
Mov Cap-2 Maneuver	-	-	-	-	190 -
Stage 1	-	-	-	-	619 -
Stage 2	-	-	-	-	438 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1225	-	-	-	388
HCM Lane V/C Ratio	0.185	-	-	-	0.507
HCM Control Delay (s)	8.6	-	-	-	23.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.7	-	-	-	2.8

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	561	34	130	385	1	34	0	119	2	0	1
Future Vol, veh/h	1	561	34	130	385	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	572	35	133	393	1	35	0	121	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	394	0	0	607
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1176	-	-	981
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1176	-	-	981
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	27	32.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	316	1176	-	-	981	-	-	132
HCM Lane V/C Ratio	0.494	0.001	-	-	0.135	-	-	0.023
HCM Control Delay (s)	27	8.1	0	-	9.2	-	-	32.9
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	2.6	0	-	-	0.5	-	-	0.1

Intersection

Int Delay, s/veh 0.9

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	1	250	562	28	41	0
Future Vol, veh/h	1	250	562	28	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	278	624	31	46	0

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	655	0	-	0	920	640
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	280	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	912	-	-	-	308	607
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	912	-	-	-	307	607
Mov Cap-2 Maneuver	-	-	-	-	307	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	772	-

Approach EB WB SB

HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	912	-	-	-	307
HCM Lane V/C Ratio	0.001	-	-	-	0.148
HCM Control Delay (s)	9	0	-	-	18.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

HCM 6th TWSC
2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	106	51	126	63	53	170
Future Vol, veh/h	106	51	126	63	53	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	116	56	138	69	58	187

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	476	173	0	0	207	0
Stage 1	173	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	551	876	-	-	1376	-
Stage 1	862	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	525	876	-	-	1376	-
Mov Cap-2 Maneuver	525	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	604	1376
HCM Lane V/C Ratio	-	-	0.286	0.042
HCM Control Delay (s)	-	-	13.3	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0.1

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	85	208	411	106	137	140	
Future Volume (veh/h)	85	208	411	106	137	140	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	97	236	467	120	156	159	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	179	837	548	464	746	664	
Arrive On Green	0.11	0.46	0.30	0.30	0.44	0.44	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	97	236	467	120	156	159	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.5	6.5	19.5	4.8	4.5	5.3	
Cycle Q Clear(g_c), s	4.5	6.5	19.5	4.8	4.5	5.3	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	179	837	548	464	746	664	
V/C Ratio(X)	0.54	0.28	0.85	0.26	0.21	0.24	
Avail Cap(c_a), veh/h	223	1125	788	667	746	664	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	13.2	26.1	21.0	14.0	14.2	
Incr Delay (d2), s/veh	2.5	0.2	6.3	0.3	0.6	0.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.9	2.5	8.9	1.7	1.8	5.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.2	13.4	32.4	21.3	14.7	15.1	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		333	587		315		
Approach Delay, s/veh		20.0	30.2		14.9		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				41.2	38.8	12.8	28.3
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				50.0	22.0	11.0	35.0
Max Q Clear Time (g_c+I1), s				8.5	7.3	6.5	21.5
Green Ext Time (p_c), s				1.5	0.8	0.1	2.8
Intersection Summary							
HCM 6th Ctrl Delay			23.5				
HCM 6th LOS			C				

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	372	0	2	582	12	0	0	2	14	0	18
Future Vol, veh/h	16	372	0	2	582	12	0	0	2	14	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	454	0	2	710	15	0	0	2	17	0	22

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	725	0	0	454	0	0	1227	1223	454	1217	1216	718
Stage 1	-	-	-	-	-	-	494	494	-	722	722	-
Stage 2	-	-	-	-	-	-	733	729	-	495	494	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	887	-	-	1117	-	-	157	181	610	159	183	432
Stage 1	-	-	-	-	-	-	561	550	-	421	434	-
Stage 2	-	-	-	-	-	-	415	431	-	560	550	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	887	-	-	1117	-	-	146	176	610	156	178	432
Mov Cap-2 Maneuver	-	-	-	-	-	-	146	176	-	156	178	-
Stage 1	-	-	-	-	-	-	548	537	-	411	433	-
Stage 2	-	-	-	-	-	-	393	430	-	545	537	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.9	21.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	610	887	-	-	1117	-	-	156	432
HCM Lane V/C Ratio	-	0.004	0.022	-	-	0.002	-	-	0.109	0.051
HCM Control Delay (s)	0	10.9	9.2	-	-	8.2	-	-	30.9	13.8
HCM Lane LOS		A	B	A	-	A	-	-	D	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	0.4	0.2

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	2	4	2	180	294	4
Future Vol, veh/h	2	4	2	180	294	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	4	2	202	330	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	538	332	334	0	-	0
Stage 1	332	-	-	-	-	-
Stage 2	206	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	508	714	1237	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	507	714	1237	-	-	-
Mov Cap-2 Maneuver	507	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1237	-	628	-	-
HCM Lane V/C Ratio	0.002	-	0.011	-	-
HCM Control Delay (s)	7.9	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

08/18/2017

Intersection						
Int Delay, s/veh	8.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	197	138	49	92	60	128
Future Vol, veh/h	197	138	49	92	60	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	219	153	54	102	67	142

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	381	105	0	0	156	0
Stage 1	105	-	-	-	-	-
Stage 2	276	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	625	955	-	-	1436	-
Stage 1	924	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	593	955	-	-	1436	-
Mov Cap-2 Maneuver	593	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	775	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	703	1436
HCM Lane V/C Ratio	-	-	0.529	0.046
HCM Control Delay (s)	-	-	15.7	7.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.1	0.1

Intersection

Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	154	186	110	149	199	39
Future Vol, veh/h	154	186	110	149	199	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	177	214	126	171	229	45
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.7	13	12
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	42%	45%	0%
Vol Thru, %	58%	0%	84%
Vol Right, %	0%	55%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	259	340	238
LT Vol	110	154	0
Through Vol	149	0	199
RT Vol	0	186	39
Lane Flow Rate	298	391	274
Geometry Grp	1	1	1
Degree of Util (X)	0.454	0.562	0.407
Departure Headway (Hd)	5.491	5.176	5.354
Convergence, Y/N	Yes	Yes	Yes
Cap	655	696	670
Service Time	3.531	3.214	3.395
HCM Lane V/C Ratio	0.455	0.562	0.409
HCM Control Delay	13	14.7	12
HCM Lane LOS	B	B	B
HCM 95th-tile Q	2.4	3.5	2

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	16	134	123	0	102	281
Future Vol, veh/h	16	134	123	0	102	281
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	154	141	0	117	323

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	698	141	0	0	141	0
Stage 1	141	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	410	912	-	-	1455	-
Stage 1	891	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	370	912	-	-	1455	-
Mov Cap-2 Maneuver	370	-	-	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	789	1455
HCM Lane V/C Ratio	-	-	0.219	0.081
HCM Control Delay (s)	-	-	10.8	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0.3

Intersection

Int Delay, s/veh 5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	116	271	301	5	2	296
Future Vol, veh/h	116	271	301	5	2	296
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	141	330	367	6	2	361

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	373	0	0	982	370
Stage 1	-	-	-	370	-
Stage 2	-	-	-	612	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1197	-	-	279	680
Stage 1	-	-	-	703	-
Stage 2	-	-	-	545	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1197	-	-	246	680
Mov Cap-2 Maneuver	-	-	-	246	-
Stage 1	-	-	-	620	-
Stage 2	-	-	-	545	-

Approach

	EB	WB	SB
HCM Control Delay, s	2.5	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1197	-	-	-	672
HCM Lane V/C Ratio	0.118	-	-	-	0.541
HCM Control Delay (s)	8.4	-	-	-	16.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	3.3

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↗
Traffic Vol, veh/h	11	268	305	113	130	4
Future Vol, veh/h	11	268	305	113	130	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	301	343	127	146	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	470	0	0	668	343
Stage 1	-	-	-	343	-
Stage 2	-	-	-	325	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1102	-	-	426	704
Stage 1	-	-	-	723	-
Stage 2	-	-	-	737	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1102	-	-	421	704
Mov Cap-2 Maneuver	-	-	-	421	-
Stage 1	-	-	-	715	-
Stage 2	-	-	-	737	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	18
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1102	-	-	-	426
HCM Lane V/C Ratio	0.011	-	-	-	0.353
HCM Control Delay (s)	8.3	-	-	-	18
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.6

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	129	162	141	40	65	198
Future Vol, veh/h	129	162	141	40	65	198
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	142	178	155	44	71	218
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.4	10.6	10.2
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	78%	0%	0%
Vol Right, %	0%	0%	22%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	162	181	65	198
LT Vol	129	0	0	65	0
Through Vol	0	162	141	0	0
RT Vol	0	0	40	0	198
Lane Flow Rate	142	178	199	71	218
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.235	0.27	0.293	0.125	0.308
Departure Headway (Hd)	5.956	5.451	5.296	6.3	5.09
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	598	652	670	565	698
Service Time	3.745	3.241	3.387	4.084	2.873
HCM Lane V/C Ratio	0.237	0.273	0.297	0.126	0.312
HCM Control Delay	10.6	10.3	10.6	10	10.2
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.9	1.1	1.2	0.4	1.3

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	16	11	144	255	2
Future Vol, veh/h	0	16	11	144	255	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	18	13	164	290	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	481	291	292	0	0
Stage 1	291	-	-	-	-
Stage 2	190	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	548	753	1281	-	-
Stage 1	763	-	-	-	-
Stage 2	847	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	542	753	1281	-	-
Mov Cap-2 Maneuver	542	-	-	-	-
Stage 1	755	-	-	-	-
Stage 2	847	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1281	-	753	-	-
HCM Lane V/C Ratio	0.01	-	0.024	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	230	164	3	2	2
Future Vol, veh/h	1	230	164	3	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	242	173	3	2	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	176	0	419
Stage 1	-	-	175
Stage 2	-	-	244
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1412	-	595
Stage 1	-	-	860
Stage 2	-	-	801
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1412	-	594
Mov Cap-2 Maneuver	-	-	594
Stage 1	-	-	859
Stage 2	-	-	801

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1412	-	-	-	707
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.6	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	219	1	1	179	0	0	0	2	0	0	1
Future Vol, veh/h	1	219	1	1	179	0	0	0	2	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	233	1	1	190	0	0	0	2	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	190	0	0	234	0	0	429	428	234	429	428	190
Stage 1	-	-	-	-	-	-	236	236	-	192	192	-
Stage 2	-	-	-	-	-	-	193	192	-	237	236	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1396	-	-	1345	-	-	540	522	810	540	522	857
Stage 1	-	-	-	-	-	-	772	713	-	814	745	-
Stage 2	-	-	-	-	-	-	813	745	-	771	713	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1396	-	-	1345	-	-	538	521	810	538	521	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	538	521	-	538	521	-
Stage 1	-	-	-	-	-	-	771	712	-	813	744	-
Stage 2	-	-	-	-	-	-	811	744	-	768	712	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.5			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	1396	-	-	1345	-	-	857
HCM Lane V/C Ratio	0.003	0.001	-	-	0.001	-	-	0.001
HCM Control Delay (s)	9.5	7.6	0	-	7.7	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	27	178	69	1	121
Future Vol, veh/h	52	27	178	69	1	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	31	207	80	1	141

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	390	247	0	0	287
Stage 1	247	-	-	-	-
Stage 2	143	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	618	797	-	-	1287
Stage 1	799	-	-	-	-
Stage 2	889	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	617	797	-	-	1287
Mov Cap-2 Maneuver	617	-	-	-	-
Stage 1	798	-	-	-	-
Stage 2	889	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	669	1287
HCM Lane V/C Ratio	-	-	0.137	0.001
HCM Control Delay (s)	-	-	11.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	151	134	153	57	56	163
Future Vol, veh/h	151	134	153	57	56	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	164	146	166	62	61	177

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	228	0	-	0	671 197
Stage 1	-	-	-	-	197 -
Stage 2	-	-	-	-	474 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1352	-	-	-	425 849
Stage 1	-	-	-	-	841 -
Stage 2	-	-	-	-	630 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1352	-	-	-	374 849
Mov Cap-2 Maneuver	-	-	-	-	374 -
Stage 1	-	-	-	-	739 -
Stage 2	-	-	-	-	630 -

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1352	-	-	-	641
HCM Lane V/C Ratio	0.121	-	-	-	0.371
HCM Control Delay (s)	8	-	-	-	13.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.7

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	331	14	34	518	0	27	0	30	3	0	0
Future Vol, veh/h	0	331	14	34	518	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	404	17	41	632	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	632	0	0	421	0	0	1127	1127	413	1145	1135	632
Stage 1	-	-	-	-	-	-	413	413	-	714	714	-
Stage 2	-	-	-	-	-	-	714	714	-	431	421	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	960	-	-	1149	-	-	183	206	643	178	204	484
Stage 1	-	-	-	-	-	-	620	597	-	425	438	-
Stage 2	-	-	-	-	-	-	425	438	-	607	592	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	960	-	-	1149	-	-	178	199	643	163	197	484
Mov Cap-2 Maneuver	-	-	-	-	-	-	178	199	-	163	197	-
Stage 1	-	-	-	-	-	-	620	597	-	425	422	-
Stage 2	-	-	-	-	-	-	410	422	-	572	592	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			21.5			27.6		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	287	960	-	-	1149	-	-	163
HCM Lane V/C Ratio	0.242	-	-	-	0.036	-	-	0.022
HCM Control Delay (s)	21.5	0	-	-	8.2	-	-	27.6
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	0.1

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	413	351	61	38	1
Future Vol, veh/h	1	413	351	61	38	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	492	418	73	45	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	491	0	-	0	949
Stage 1	-	-	-	-	455
Stage 2	-	-	-	-	494
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1081	-	-	-	281
Stage 1	-	-	-	-	697
Stage 2	-	-	-	-	617
Platoon blocked, %	1	-	-	-	1
Mov Cap-1 Maneuver	1081	-	-	-	281
Mov Cap-2 Maneuver	-	-	-	-	281
Stage 1	-	-	-	-	697
Stage 2	-	-	-	-	617

Approach	EB	WB	SB
HCM Control Delay, s	0	0	20.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1081	-	-	-	285
HCM Lane V/C Ratio	0.001	-	-	-	0.163
HCM Control Delay (s)	8.3	0	-	-	20.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	76	215	64	70	278
Future Vol, veh/h	80	76	215	64	70	278
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	96	92	259	77	84	335

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	801	298	0	0	336
Stage 1	298	-	-	-	-
Stage 2	503	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	356	746	-	-	1235
Stage 1	758	-	-	-	-
Stage 2	612	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	326	746	-	-	1235
Mov Cap-2 Maneuver	326	-	-	-	-
Stage 1	694	-	-	-	-
Stage 2	612	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	449	1235
HCM Lane V/C Ratio	-	-	0.419	0.068
HCM Control Delay (s)	-	-	18.7	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	89	354	303	188	250	102	
Future Volume (veh/h)	89	354	303	188	250	102	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	105	416	356	221	294	120	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	183	726	433	367	851	758	
Arrive On Green	0.11	0.40	0.24	0.24	0.50	0.50	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	105	416	356	221	294	120	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.9	14.3	15.0	10.3	8.3	3.4	
Cycle Q Clear(g_c), s	4.9	14.3	15.0	10.3	8.3	3.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	183	726	433	367	851	758	
V/C Ratio(X)	0.57	0.57	0.82	0.60	0.35	0.16	
Avail Cap(c_a), veh/h	263	1013	630	534	851	758	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	18.5	28.8	27.0	12.2	11.0	
Incr Delay (d2), s/veh	2.8	0.7	5.7	1.6	1.1	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	5.8	6.9	3.8	3.2	4.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.5	19.2	34.5	28.6	13.3	11.4	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		521	577		414		
Approach Delay, s/veh		22.7	32.2		12.8		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				36.3	43.7	13.0	23.2
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				16.3	10.3	6.9	17.0
Green Ext Time (p_c), s				2.7	1.2	0.1	2.3
Intersection Summary							
HCM 6th Ctrl Delay			23.6				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	741	2	5	560	44	3	0	1	38	1	46
Future Vol, veh/h	35	741	2	5	560	44	3	0	1	38	1	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	37	780	2	5	589	46	3	0	1	40	1	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	635	0	0	782	0	0	1502	1500	781	1478	1478	612
Stage 1	-	-	-	-	-	-	855	855	-	622	622	-
Stage 2	-	-	-	-	-	-	647	645	-	856	856	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	958	-	-	845	-	-	101	123	398	105	127	497
Stage 1	-	-	-	-	-	-	356	378	-	478	482	-
Stage 2	-	-	-	-	-	-	463	471	-	355	377	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	958	-	-	845	-	-	87	117	398	101	121	497
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	117	-	101	121	-
Stage 1	-	-	-	-	-	-	342	363	-	459	479	-
Stage 2	-	-	-	-	-	-	415	468	-	340	362	-

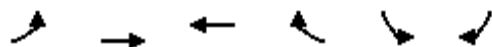
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	39.5	36
HCM LOS			E	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	87	398	958	-	-	845	-	-	101	497
HCM Lane V/C Ratio	0.036	0.003	0.038	-	-	0.006	-	-	0.406	0.097
HCM Control Delay (s)	47.9	14.1	8.9	-	-	9.3	-	-	63.2	13
HCM Lane LOS	E	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	1.7	0.3

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	720	532	111	144	77
Future Volume (veh/h)	60	720	532	111	144	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	65	783	578	121	157	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	155	1192	931	789	385	362
Arrive On Green	0.10	0.66	0.52	0.52	0.24	0.24
Sat Flow, veh/h	1619	1800	1800	1525	1619	1525
Grp Volume(v), veh/h	65	783	578	121	157	84
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1619	1525
Q Serve(g_s), s	3.0	20.8	18.3	3.3	6.6	3.6
Cycle Q Clear(g_c), s	3.0	20.8	18.3	3.3	6.6	3.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	155	1193	931	789	385	362
V/C Ratio(X)	0.42	0.66	0.62	0.15	0.41	0.23
Avail Cap(c_a), veh/h	202	1193	931	789	385	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	8.1	13.7	10.1	25.8	24.6
Incr Delay (d2), s/veh	1.8	2.8	3.1	0.4	3.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.3	7.5	1.1	2.8	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.9	10.9	16.9	10.5	28.9	26.1
LnGrp LOS	D	B	B	B	C	C
Approach Vol, veh/h		848	699		241	
Approach Delay, s/veh		12.8	15.8		28.0	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	11.6	45.4
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		22.8		8.6	5.0	20.3
Green Ext Time (p_c), s		6.6		0.5	0.0	4.1
Intersection Summary						
HCM 6th Ctrl Delay			16.0			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	1	20	21	271	256	3
Future Vol, veh/h	1	20	21	271	256	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	21	22	282	267	3

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	595	269	270	0	-	0
Stage 1	269	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	470	775	1305	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	736	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	461	775	1305	-	-	-
Mov Cap-2 Maneuver	461	-	-	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	736	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1305	-	751	-	-
HCM Lane V/C Ratio	0.017	-	0.029	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection

Int Delay, s/veh 9.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	219	138	80	167	69	150
Future Vol, veh/h	219	138	80	167	69	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	231	145	84	176	73	158

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	476	172	0	0	260
Stage 1	172	-	-	-	-
Stage 2	304	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	551	877	-	-	1316
Stage 1	863	-	-	-	-
Stage 2	753	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	517	877	-	-	1316
Mov Cap-2 Maneuver	517	-	-	-	-
Stage 1	810	-	-	-	-
Stage 2	753	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.6	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	615	1316
HCM Lane V/C Ratio	-	-	0.611	0.055
HCM Control Delay (s)	-	-	19.6	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2

Intersection

Intersection Delay, s/veh	29.2
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	192	199	214	325	247	46
Future Vol, veh/h	192	199	214	325	247	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	200	207	223	339	257	48
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	22.1	41.7	15.8
HCM LOS	C	E	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	49%	0%
Vol Thru, %	60%	0%	84%
Vol Right, %	0%	51%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	539	391	293
LT Vol	214	192	0
Through Vol	325	0	247
RT Vol	0	199	46
Lane Flow Rate	561	407	305
Geometry Grp	1	1	1
Degree of Util (X)	0.908	0.697	0.524
Departure Headway (Hd)	5.948	6.16	6.176
Convergence, Y/N	Yes	Yes	Yes
Cap	612	591	586
Service Time	3.948	4.16	4.204
HCM Lane V/C Ratio	0.917	0.689	0.52
HCM Control Delay	41.7	22.1	15.8
HCM Lane LOS	E	C	C
HCM 95th-tile Q	11.3	5.5	3

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	159	388	0	125	321
Future Vol, veh/h	1	159	388	0	125	321
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	164	400	0	129	331

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	989	400	0	0	400
Stage 1	400	-	-	-	-
Stage 2	589	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	276	654	-	-	1170
Stage 1	681	-	-	-	-
Stage 2	558	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	239	654	-	-	1170
Mov Cap-2 Maneuver	239	-	-	-	-
Stage 1	589	-	-	-	-
Stage 2	558	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	647	1170
HCM Lane V/C Ratio	-	-	0.255	0.11
HCM Control Delay (s)	-	-	12.5	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.4

Intersection

Int Delay, s/veh 5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↗		↘	
Traffic Vol, veh/h	381	482	330	1	4	317
Future Vol, veh/h	381	482	330	1	4	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	401	507	347	1	4	334

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	348	0	-	0	1657
Stage 1	-	-	-	-	348
Stage 2	-	-	-	-	1309
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1222	-	-	-	109
Stage 1	-	-	-	-	719
Stage 2	-	-	-	-	255
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1222	-	-	-	73
Mov Cap-2 Maneuver	-	-	-	-	73
Stage 1	-	-	-	-	483
Stage 2	-	-	-	-	255

Approach

	EB	WB	SB
HCM Control Delay, s	4.1	0	17
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1222	-	-	-	632
HCM Lane V/C Ratio	0.328	-	-	-	0.535
HCM Control Delay (s)	9.4	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1.4	-	-	-	3.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	482	342	180	130	7
Future Vol, veh/h	7	482	342	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	530	376	198	143	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	574	0	0	922	376
Stage 1	-	-	-	376	-
Stage 2	-	-	-	546	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1009	-	-	302	675
Stage 1	-	-	-	699	-
Stage 2	-	-	-	584	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1009	-	-	300	675
Mov Cap-2 Maneuver	-	-	-	300	-
Stage 1	-	-	-	693	-
Stage 2	-	-	-	584	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	27.2
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1009	-	-	-	309
HCM Lane V/C Ratio	0.008	-	-	-	0.487
HCM Control Delay (s)	8.6	-	-	-	27.2
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.5

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	230	302	218	99	86	201
Future Vol, veh/h	230	302	218	99	86	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	253	332	240	109	95	221
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.3	16.3	12.4
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	302	317	86	201
LT Vol	230	0	0	86	0
Through Vol	0	302	218	0	0
RT Vol	0	0	99	0	201
Lane Flow Rate	253	332	348	95	221
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.456	0.551	0.565	0.193	0.377
Departure Headway (Hd)	6.488	5.981	5.843	7.362	6.14
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	556	604	617	487	585
Service Time	4.231	3.723	3.885	5.113	3.89
HCM Lane V/C Ratio	0.455	0.55	0.564	0.195	0.378
HCM Control Delay	14.6	15.9	16.3	11.9	12.6
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.4	3.3	3.5	0.7	1.7

HCM 6th TWSC
13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	25	18	259	243	0
Future Vol, veh/h	0	25	18	259	243	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	27	20	282	264	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	586	264	264	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	322	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	476	780	1312	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	467	780	1312	-	-	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1312	-	780	-	-
HCM Lane V/C Ratio	0.015	-	0.035	-	-
HCM Control Delay (s)	7.8	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.4

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	20	358	291	2	2	9
Future Vol, veh/h	20	358	291	2	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	421	342	2	2	11

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	344	0	-	0	812	343
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	469	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1226	-	-	-	351	704
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	634	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1226	-	-	-	342	704
Mov Cap-2 Maneuver	-	-	-	-	342	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	634	-

Approach EB WB SB

HCM Control Delay, s	0.4	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1226	-	-	-	590
HCM Lane V/C Ratio	0.019	-	-	-	0.022
HCM Control Delay (s)	8	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	347	8	0	280	1	7	0	0	1	0	11
Future Vol, veh/h	9	347	8	0	280	1	7	0	0	1	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	408	9	0	329	1	8	0	0	1	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	330	0	0	417	0	0	771	765	413	765	769	330
Stage 1	-	-	-	-	-	-	435	435	-	330	330	-
Stage 2	-	-	-	-	-	-	336	330	-	435	439	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1241	-	-	1153	-	-	320	336	643	323	334	716
Stage 1	-	-	-	-	-	-	604	584	-	687	649	-
Stage 2	-	-	-	-	-	-	682	649	-	604	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1241	-	-	1153	-	-	311	332	643	320	330	716
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	332	-	320	330	-
Stage 1	-	-	-	-	-	-	597	577	-	679	649	-
Stage 2	-	-	-	-	-	-	670	649	-	597	575	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	16.9	10.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	311	1241	-	-	1153	-	-	649
HCM Lane V/C Ratio	0.026	0.009	-	-	-	-	-	0.022
HCM Control Delay (s)	16.9	7.9	0	-	0	-	-	10.7
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	3	268	14	2	154
Future Vol, veh/h	9	3	268	14	2	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	3	298	16	2	171

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	481	306	0	0	314
Stage 1	306	-	-	-	-
Stage 2	175	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	548	739	-	-	1258
Stage 1	751	-	-	-	-
Stage 2	860	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	547	739	-	-	1258
Mov Cap-2 Maneuver	547	-	-	-	-
Stage 1	749	-	-	-	-
Stage 2	860	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	585	1258
HCM Lane V/C Ratio	-	-	0.023	0.002
HCM Control Delay (s)	-	-	11.3	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	7.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	241	346	237	89	57	150
Future Vol, veh/h	241	346	237	89	57	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	262	376	258	97	62	163

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	355	0	0
Stage 1	-	-	307
Stage 2	-	-	900
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1215	-	204
Stage 1	-	-	751
Stage 2	-	-	400
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1215	-	160
Mov Cap-2 Maneuver	-	-	160
Stage 1	-	-	589
Stage 2	-	-	400

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	28.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1215	-	-	-	370
HCM Lane V/C Ratio	0.216	-	-	-	0.608
HCM Control Delay (s)	8.8	-	-	-	28.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.8	-	-	-	3.8

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection

Int Delay, s/veh 4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	604	34	130	440	1	34	0	119	2	0	1
Future Vol, veh/h	1	604	34	130	440	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	616	35	133	449	1	35	0	121	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	450	0	0	651
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1121	-	-	945
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1121	-	-	945
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.1	32.7	38.7
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	1121	-	-	945	-	-	110
HCM Lane V/C Ratio	0.556	0.001	-	-	0.14	-	-	0.028
HCM Control Delay (s)	32.7	8.2	0	-	9.4	-	-	38.7
HCM Lane LOS	D	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	3.1	0	-	-	0.5	-	-	0.1

Intersection

Int Delay, s/veh 1.1

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	1	260	572	38	51	0
Future Vol, veh/h	1	260	572	38	51	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	289	636	42	57	0

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	678	0	-	0	948	657
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	291	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	893	-	-	-	*294	*607
Stage 1	-	-	-	-	*572	-
Stage 2	-	-	-	-	*763	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	893	-	-	-	*294	*607
Mov Cap-2 Maneuver	-	-	-	-	*294	-
Stage 1	-	-	-	-	*572	-
Stage 2	-	-	-	-	*763	-

Approach EB WB SB

HCM Control Delay, s	0	0	20.1
HCM LOS			C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	893	-	-	-	294
HCM Lane V/C Ratio	0.001	-	-	-	0.193
HCM Control Delay (s)	9	0	-	-	20.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	106	51	156	63	53	199
Future Vol, veh/h	106	51	156	63	53	199
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	116	56	171	69	58	219

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	541	206	0	0	240
Stage 1	206	-	-	-	-
Stage 2	335	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	506	840	-	-	1339
Stage 1	833	-	-	-	-
Stage 2	729	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	481	840	-	-	1339
Mov Cap-2 Maneuver	481	-	-	-	-
Stage 1	792	-	-	-	-
Stage 2	729	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	559	1339
HCM Lane V/C Ratio	-	-	0.309	0.043
HCM Control Delay (s)	-	-	14.3	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	85	228	431	136	166	140	
Future Volume (veh/h)	85	228	431	136	166	140	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	97	259	490	155	189	159	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	179	863	574	486	721	642	
Arrive On Green	0.11	0.48	0.32	0.32	0.42	0.42	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	97	259	490	155	189	159	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.5	7.0	20.4	6.2	5.7	5.4	
Cycle Q Clear(g_c), s	4.5	7.0	20.4	6.2	5.7	5.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	179	863	574	486	721	642	
V/C Ratio(X)	0.54	0.30	0.85	0.32	0.26	0.25	
Avail Cap(c_a), veh/h	202	1125	810	686	721	642	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	12.7	25.5	20.7	15.1	15.0	
Incr Delay (d2), s/veh	2.5	0.2	6.4	0.4	0.9	0.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.9	2.7	9.2	2.2	2.3	5.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.2	12.9	31.9	21.0	16.0	15.9	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		356	645		348		
Approach Delay, s/veh		19.2	29.3		15.9		
Approach LOS		B	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				42.3	37.7	12.8	29.5
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				50.0	22.0	10.0	36.0
Max Q Clear Time (g_c+I1), s				9.0	7.7	6.5	22.4
Green Ext Time (p_c), s				1.6	0.9	0.1	3.1
Intersection Summary							
HCM 6th Ctrl Delay			23.2				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	421	0	2	632	32	0	0	2	34	0	18
Future Vol, veh/h	16	421	0	2	632	32	0	0	2	34	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	513	0	2	771	39	0	0	2	41	0	22

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	810	0	0	513
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	825	-	-	1063
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	825	-	-	1063
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

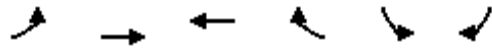
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	11.4	35.8
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	565	825	-	-	1063	-	-	126	393
HCM Lane V/C Ratio	-	0.004	0.024	-	-	0.002	-	-	0.329	0.056
HCM Control Delay (s)	0	11.4	9.5	-	-	8.4	-	-	47	14.7
HCM Lane LOS	A	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	1.3	0.2

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	68	388	596	127	130	70
Future Volume (veh/h)	68	388	596	127	130	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	74	422	648	138	141	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	163	1192	921	780	385	362
Arrive On Green	0.10	0.66	0.51	0.51	0.24	0.24
Sat Flow, veh/h	1619	1800	1800	1525	1619	1525
Grp Volume(v), veh/h	74	422	648	138	141	76
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1619	1525
Q Serve(g_s), s	3.4	8.3	22.0	3.9	5.8	3.2
Cycle Q Clear(g_c), s	3.4	8.3	22.0	3.9	5.8	3.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	163	1193	921	780	385	362
V/C Ratio(X)	0.45	0.35	0.70	0.18	0.37	0.21
Avail Cap(c_a), veh/h	202	1193	921	780	385	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	6.0	14.9	10.5	25.5	24.5
Incr Delay (d2), s/veh	2.0	0.8	4.5	0.5	2.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.8	9.2	1.3	2.5	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	6.8	19.4	11.0	28.2	25.8
LnGrp LOS	D	A	B	B	C	C
Approach Vol, veh/h		496	786		217	
Approach Delay, s/veh		11.1	17.9		27.3	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	12.1	44.9
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		10.3		7.8	5.4	24.0
Green Ext Time (p_c), s		2.9		0.5	0.0	4.4
Intersection Summary						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	2	16	14	192	306	4
Future Vol, veh/h	2	16	14	192	306	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	18	16	216	344	4

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	594	346	348	0	0
Stage 1	346	-	-	-	-
Stage 2	248	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	471	702	1222	-	-
Stage 1	721	-	-	-	-
Stage 2	798	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	464	702	1222	-	-
Mov Cap-2 Maneuver	464	-	-	-	-
Stage 1	710	-	-	-	-
Stage 2	798	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1222	-	664	-	-
HCM Lane V/C Ratio	0.013	-	0.03	-	-
HCM Control Delay (s)	8	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	9.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	220	138	55	116	60	134
Future Vol, veh/h	220	138	55	116	60	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	244	153	61	129	67	149

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	409	126	0	0	190
Stage 1	126	-	-	-	-
Stage 2	283	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	602	930	-	-	1396
Stage 1	905	-	-	-	-
Stage 2	770	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	571	930	-	-	1396
Mov Cap-2 Maneuver	571	-	-	-	-
Stage 1	858	-	-	-	-
Stage 2	770	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	671	1396
HCM Lane V/C Ratio	-	-	0.593	0.048
HCM Control Delay (s)	-	-	17.9	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.9	0.1

Intersection

Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	154	215	140	199	248	39
Future Vol, veh/h	154	215	140	199	248	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	177	247	161	229	285	45
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	18.9	18.2	15.1
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	41%	42%	0%
Vol Thru, %	59%	0%	86%
Vol Right, %	0%	58%	14%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	339	369	287
LT Vol	140	154	0
Through Vol	199	0	248
RT Vol	0	215	39
Lane Flow Rate	390	424	330
Geometry Grp	1	1	1
Degree of Util (X)	0.627	0.659	0.526
Departure Headway (Hd)	5.797	5.59	5.739
Convergence, Y/N	Yes	Yes	Yes
Cap	620	645	623
Service Time	3.87	3.656	3.815
HCM Lane V/C Ratio	0.629	0.657	0.53
HCM Control Delay	18.2	18.9	15.1
HCM Lane LOS	C	C	C
HCM 95th-tile Q	4.4	4.9	3.1

Intersection

Int Delay, s/veh 3.2

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations	W		T			T
Traffic Vol, veh/h	16	134	203	0	102	359
Future Vol, veh/h	16	134	203	0	102	359
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	154	233	0	117	413

Major/Minor Minor1 Major1 Major2

Conflicting Flow All	880	233	0	0	233	0
Stage 1	233	-	-	-	-	-
Stage 2	647	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	320	811	-	-	1346	-
Stage 1	810	-	-	-	-	-
Stage 2	525	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	284	811	-	-	1346	-
Mov Cap-2 Maneuver	284	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	525	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s	12.1	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	677	1346	-
HCM Lane V/C Ratio	-	-	0.255	0.087	-
HCM Control Delay (s)	-	-	12.1	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.3	-

Intersection

Int Delay, s/veh	9.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	196	321	350	5	2	374
Future Vol, veh/h	196	321	350	5	2	374
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	239	391	427	6	2	456

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	433	0	-	0	1299
Stage 1	-	-	-	-	430
Stage 2	-	-	-	-	869
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1137	-	-	-	180
Stage 1	-	-	-	-	660
Stage 2	-	-	-	-	414
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1137	-	-	-	142
Mov Cap-2 Maneuver	-	-	-	-	142
Stage 1	-	-	-	-	521
Stage 2	-	-	-	-	414

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	25.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1137	-	-	-	618
HCM Lane V/C Ratio	0.21	-	-	-	0.742
HCM Control Delay (s)	9	-	-	-	25.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.8	-	-	-	6.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	318	354	113	130	4
Future Vol, veh/h	11	318	354	113	130	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	357	398	127	146	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	525	0	0	779	398
Stage 1	-	-	-	398	-
Stage 2	-	-	-	381	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1052	-	-	367	656
Stage 1	-	-	-	683	-
Stage 2	-	-	-	695	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1052	-	-	363	656
Mov Cap-2 Maneuver	-	-	-	363	-
Stage 1	-	-	-	675	-
Stage 2	-	-	-	695	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1052	-	-	-	368
HCM Lane V/C Ratio	0.012	-	-	-	0.409
HCM Control Delay (s)	8.5	-	-	-	21.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	149	192	170	40	65	218
Future Vol, veh/h	149	192	170	40	65	218
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	164	211	187	44	71	240
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.2	11.7	10.9
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	192	210	65	218
LT Vol	149	0	0	65	0
Through Vol	0	192	170	0	0
RT Vol	0	0	40	0	218
Lane Flow Rate	164	211	231	71	240
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.281	0.333	0.357	0.131	0.359
Departure Headway (Hd)	6.188	5.682	5.567	6.614	5.4
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	581	635	646	543	666
Service Time	3.911	3.406	3.592	4.341	3.127
HCM Lane V/C Ratio	0.282	0.332	0.358	0.131	0.36
HCM Control Delay	11.3	11.2	11.7	10.3	11.1
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.1	1.5	1.6	0.4	1.6

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	24	19	156	267	2
Future Vol, veh/h	0	24	19	156	267	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	27	22	177	303	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	525	304	305	0	-	0
Stage 1	304	-	-	-	-	-
Stage 2	221	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	516	740	1267	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	506	740	1267	-	-	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1267	-	740	-	-
HCM Lane V/C Ratio	0.017	-	0.037	-	-
HCM Control Delay (s)	7.9	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	250	184	3	2	8
Future Vol, veh/h	7	250	184	3	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	263	194	3	2	8

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	197	0	473
Stage 1	-	-	196
Stage 2	-	-	277
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1388	-	553
Stage 1	-	-	842
Stage 2	-	-	774
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1388	-	550
Mov Cap-2 Maneuver	-	-	550
Stage 1	-	-	837
Stage 2	-	-	774

Approach

	EB	WB	SB
HCM Control Delay, s	0.2	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1388	-	-	-	766
HCM Lane V/C Ratio	0.005	-	-	-	0.014
HCM Control Delay (s)	7.6	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	231	7	1	191	0	6	0	2	0	0	5
Future Vol, veh/h	5	231	7	1	191	0	6	0	2	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	246	7	1	203	0	6	0	2	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	203	0	0	253	0	0	468	465	250	466	468	203
Stage 1	-	-	-	-	-	-	260	260	-	205	205	-
Stage 2	-	-	-	-	-	-	208	205	-	261	263	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1381	-	-	1324	-	-	509	498	794	510	496	843
Stage 1	-	-	-	-	-	-	749	697	-	802	736	-
Stage 2	-	-	-	-	-	-	799	736	-	748	694	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1381	-	-	1324	-	-	504	496	794	507	494	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	504	496	-	507	494	-
Stage 1	-	-	-	-	-	-	746	694	-	799	735	-
Stage 2	-	-	-	-	-	-	793	735	-	743	691	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	11.6	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	555	1381	-	-	1324	-	-	843
HCM Lane V/C Ratio	0.015	0.004	-	-	0.001	-	-	0.006
HCM Control Delay (s)	11.6	7.6	0	-	7.7	0	-	9.3
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	62	27	188	79	1	131
Future Vol, veh/h	62	27	188	79	1	131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	72	31	219	92	1	152

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	419	265	0	0	311	0
Stage 1	265	-	-	-	-	-
Stage 2	154	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	595	779	-	-	1261	-
Stage 1	784	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	594	779	-	-	1261	-
Mov Cap-2 Maneuver	594	-	-	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	879	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	640	1261
HCM Lane V/C Ratio	-	-	0.162	0.001
HCM Control Delay (s)	-	-	11.7	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	6.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	181	144	163	57	56	192
Future Vol, veh/h	181	144	163	57	56	192
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	197	157	177	62	61	209

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	239	0	-	0	759 208
Stage 1	-	-	-	-	208 -
Stage 2	-	-	-	-	551 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1340	-	-	-	377 837
Stage 1	-	-	-	-	832 -
Stage 2	-	-	-	-	581 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1340	-	-	-	322 837
Mov Cap-2 Maneuver	-	-	-	-	322 -
Stage 1	-	-	-	-	710 -
Stage 2	-	-	-	-	581 -

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	615
HCM Lane V/C Ratio	0.147	-	-	-	0.438
HCM Control Delay (s)	8.1	-	-	-	15.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.2

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	380	14	34	568	0	27	0	30	3	0	0
Future Vol, veh/h	0	380	14	34	568	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	463	17	41	693	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	693	0	0	480	0	0	1247	1247	472	1265	1255	693
Stage 1	-	-	-	-	-	-	472	472	-	775	775	-
Stage 2	-	-	-	-	-	-	775	775	-	490	480	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	912	-	-	1093	-	-	152	175	596	147	173	447
Stage 1	-	-	-	-	-	-	576	562	-	394	411	-
Stage 2	-	-	-	-	-	-	394	411	-	564	558	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	912	-	-	1093	-	-	148	168	596	134	166	447
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	168	-	134	166	-
Stage 1	-	-	-	-	-	-	576	562	-	394	395	-
Stage 2	-	-	-	-	-	-	379	395	-	529	558	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			25.4			32.6		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	245	912	-	-	1093	-	-	134
HCM Lane V/C Ratio	0.284	-	-	-	0.038	-	-	0.027
HCM Control Delay (s)	25.4	0	-	-	8.4	-	-	32.6
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	486	362	50	29	1
Future Vol, veh/h	1	486	362	50	29	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	579	431	60	35	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	491	0	-	0	1042
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	581
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1081	-	-	-	237
Stage 1	-	-	-	-	691
Stage 2	-	-	-	-	563
Platoon blocked, %	1	-	-	-	1
Mov Cap-1 Maneuver	1081	-	-	-	236
Mov Cap-2 Maneuver	-	-	-	-	236
Stage 1	-	-	-	-	691
Stage 2	-	-	-	-	563

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1081	-	-	-	241
HCM Lane V/C Ratio	0.001	-	-	-	0.148
HCM Control Delay (s)	8.3	0	-	-	22.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

HCM 6th TWSC
2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	4.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	87	76	183	82	70	255
Future Vol, veh/h	87	76	183	82	70	255
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	105	92	220	99	84	307

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	745	270	0	0	319
Stage 1	270	-	-	-	-
Stage 2	475	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	384	774	-	-	1252
Stage 1	780	-	-	-	-
Stage 2	630	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	353	774	-	-	1252
Mov Cap-2 Maneuver	353	-	-	-	-
Stage 1	717	-	-	-	-
Stage 2	630	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	473	1252
HCM Lane V/C Ratio	-	-	0.415	0.067
HCM Control Delay (s)	-	-	17.9	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	107	401	296	156	227	109	
Future Volume (veh/h)	107	401	296	156	227	109	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	126	472	348	184	267	128	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	190	724	423	358	853	759	
Arrive On Green	0.12	0.40	0.23	0.23	0.50	0.50	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	126	472	348	184	267	128	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	6.0	17.0	14.7	8.4	7.4	3.7	
Cycle Q Clear(g_c), s	6.0	17.0	14.7	8.4	7.4	3.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	190	724	423	358	853	759	
V/C Ratio(X)	0.66	0.65	0.82	0.51	0.31	0.17	
Avail Cap(c_a), veh/h	263	1013	630	534	853	759	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.8	19.4	29.0	26.6	12.0	11.0	
Incr Delay (d2), s/veh	3.9	1.0	5.5	1.1	1.0	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.5	6.9	6.7	3.1	2.8	4.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	37.7	20.4	34.5	27.8	12.9	11.5	
LnGrp LOS	D	C	C	C	B	B	
Approach Vol, veh/h		598	532		395		
Approach Delay, s/veh		24.0	32.2		12.5		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				36.2	43.8	13.4	22.8
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				19.0	9.4	8.0	16.7
Green Ext Time (p_c), s				3.2	1.1	0.1	2.1
Intersection Summary							
HCM 6th Ctrl Delay			23.9				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	764	2	5	522	22	3	0	1	23	1	46
Future Vol, veh/h	35	764	2	5	522	22	3	0	1	23	1	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	37	804	2	5	549	23	3	0	1	24	1	48

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	572	0	0	806
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1011	-	-	828
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1011	-	-	828
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	37.4	24.9
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	93	386	1011	-	-	828	-	-	107	531
HCM Lane V/C Ratio	0.034	0.003	0.036	-	-	0.006	-	-	0.236	0.091
HCM Control Delay (s)	45.1	14.4	8.7	-	-	9.4	-	-	48.7	12.5
HCM Lane LOS	E	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	0.9	0.3

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	10	8	265	252	3
Future Vol, veh/h	1	10	8	265	252	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	10	8	276	263	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	557	265	266	0	0
Stage 1	265	-	-	-	-
Stage 2	292	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	495	779	1310	-	-
Stage 1	784	-	-	-	-
Stage 2	762	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	492	779	1310	-	-
Mov Cap-2 Maneuver	492	-	-	-	-
Stage 1	779	-	-	-	-
Stage 2	762	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1310	-	740	-	-
HCM Lane V/C Ratio	0.006	-	0.015	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	8.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	203	139	80	146	71	150
Future Vol, veh/h	203	139	80	146	71	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	214	146	84	154	75	158

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	469	161	0	0	238
Stage 1	161	-	-	-	-
Stage 2	308	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	556	889	-	-	1341
Stage 1	873	-	-	-	-
Stage 2	750	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	525	889	-	-	1341
Mov Cap-2 Maneuver	525	-	-	-	-
Stage 1	824	-	-	-	-
Stage 2	750	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	630	1341
HCM Lane V/C Ratio	-	-	0.571	0.056
HCM Control Delay (s)	-	-	18.1	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.6	0.2

Intersection

Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	192	182	193	278	211	46
Future Vol, veh/h	192	182	193	278	211	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	200	190	201	290	220	48
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	17.9	24.8	13.2
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	41%	51%	0%
Vol Thru, %	59%	0%	82%
Vol Right, %	0%	49%	18%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	471	374	257
LT Vol	193	192	0
Through Vol	278	0	211
RT Vol	0	182	46
Lane Flow Rate	491	390	268
Geometry Grp	1	1	1
Degree of Util (X)	0.766	0.622	0.43
Departure Headway (Hd)	5.618	5.75	5.782
Convergence, Y/N	Yes	Yes	Yes
Cap	643	623	618
Service Time	3.682	3.818	3.858
HCM Lane V/C Ratio	0.764	0.626	0.434
HCM Control Delay	24.8	17.9	13.2
HCM Lane LOS	C	C	B
HCM 95th-tile Q	7.1	4.3	2.2

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	159	320	0	125	270
Future Vol, veh/h	1	159	320	0	125	270
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	164	330	0	129	278

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	866	330	0	0	330	0
Stage 1	330	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	326	716	-	-	1241	-
Stage 1	733	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	286	716	-	-	1241	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	2.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	709	1241
HCM Lane V/C Ratio	-	-	0.233	0.104
HCM Control Delay (s)	-	-	11.6	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.3

Intersection

Int Delay, s/veh	5.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	303	485	296	12	12	258
Future Vol, veh/h	303	485	296	12	12	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	319	511	312	13	13	272

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	325	0	-	0	1468
Stage 1	-	-	-	-	319
Stage 2	-	-	-	-	1149
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1246	-	-	-	142
Stage 1	-	-	-	-	741
Stage 2	-	-	-	-	305
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1246	-	-	-	106
Mov Cap-2 Maneuver	-	-	-	-	106
Stage 1	-	-	-	-	551
Stage 2	-	-	-	-	305

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1246	-	-	-	576
HCM Lane V/C Ratio	0.256	-	-	-	0.493
HCM Control Delay (s)	8.9	-	-	-	17.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1	-	-	-	2.7

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	489	312	180	130	7
Future Vol, veh/h	7	489	312	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	537	343	198	143	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	541	0	-	0	896 343
Stage 1	-	-	-	-	343 -
Stage 2	-	-	-	-	553 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1038	-	-	-	313 704
Stage 1	-	-	-	-	723 -
Stage 2	-	-	-	-	580 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1038	-	-	-	310 704
Mov Cap-2 Maneuver	-	-	-	-	310 -
Stage 1	-	-	-	-	717 -
Stage 2	-	-	-	-	580 -

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	26
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1038	-	-	-	319
HCM Lane V/C Ratio	0.007	-	-	-	0.472
HCM Control Delay (s)	8.5	-	-	-	26
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.4

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	208	277	199	99	86	184
Future Vol, veh/h	208	277	199	99	86	184
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	229	304	219	109	95	202
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.9	14.7	11.7
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	67%	0%	0%
Vol Right, %	0%	0%	33%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	277	298	86	184
LT Vol	208	0	0	86	0
Through Vol	0	277	199	0	0
RT Vol	0	0	99	0	184
Lane Flow Rate	229	304	327	95	202
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.404	0.495	0.518	0.189	0.335
Departure Headway (Hd)	6.363	5.856	5.693	7.19	5.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	567	615	632	499	603
Service Time	4.099	3.592	3.729	4.934	3.714
HCM Lane V/C Ratio	0.404	0.494	0.517	0.19	0.335
HCM Control Delay	13.4	14.2	14.7	11.6	11.7
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.9	2.7	3	0.7	1.5

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	18	9	246	233	0
Future Vol, veh/h	0	18	9	246	233	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	20	10	267	253	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	540	253	253	0	-	0
Stage 1	253	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	506	791	1324	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	501	791	1324	-	-	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1324	-	791	-	-
HCM Lane V/C Ratio	0.007	-	0.025	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
 14: SR-189 & Rocky Point Rd.

08/18/2017

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	13	344	282	2	2	4
Future Vol, veh/h	13	344	282	2	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	405	332	2	2	5

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	334	0	0	768	333
Stage 1	-	-	-	333	-
Stage 2	-	-	-	435	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1237	-	-	373	713
Stage 1	-	-	-	731	-
Stage 2	-	-	-	657	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1237	-	-	367	713
Mov Cap-2 Maneuver	-	-	-	367	-
Stage 1	-	-	-	719	-
Stage 2	-	-	-	657	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1237	-	-	-	543
HCM Lane V/C Ratio	0.012	-	-	-	0.013
HCM Control Delay (s)	7.9	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	342	1	0	278	1	2	0	0	1	0	8
Future Vol, veh/h	5	342	1	0	278	1	2	0	0	1	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	402	1	0	327	1	2	0	0	1	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	328	0	0	403	0	0	747	743	403	743	743	328
Stage 1	-	-	-	-	-	-	415	415	-	328	328	-
Stage 2	-	-	-	-	-	-	332	328	-	415	415	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1243	-	-	1167	-	-	332	346	652	334	346	718
Stage 1	-	-	-	-	-	-	619	596	-	689	651	-
Stage 2	-	-	-	-	-	-	686	651	-	619	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1243	-	-	1167	-	-	326	344	652	332	344	718
Mov Cap-2 Maneuver	-	-	-	-	-	-	326	344	-	332	344	-
Stage 1	-	-	-	-	-	-	615	592	-	685	651	-
Stage 2	-	-	-	-	-	-	677	651	-	615	592	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	16.1	10.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	326	1243	-	-	1167	-	-	636
HCM Lane V/C Ratio	0.007	0.005	-	-	-	-	-	0.017
HCM Control Delay (s)	16.1	7.9	0	-	0	-	-	10.8
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	3	272	3	2	166
Future Vol, veh/h	0	3	272	3	2	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	3	302	3	2	184

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	492	304	0	0	305
Stage 1	304	-	-	-	-
Stage 2	188	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	540	740	-	-	1267
Stage 1	753	-	-	-	-
Stage 2	849	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	539	740	-	-	1267
Mov Cap-2 Maneuver	539	-	-	-	-
Stage 1	751	-	-	-	-
Stage 2	849	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	740	1267
HCM Lane V/C Ratio	-	-	0.005	0.002
HCM Control Delay (s)	-	-	9.9	7.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	8.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	209	401	247	104	78	125
Future Vol, veh/h	209	401	247	104	78	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	227	436	268	113	85	136

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	381	0	-	0	1215 325
Stage 1	-	-	-	-	325 -
Stage 2	-	-	-	-	890 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1189	-	-	-	202 721
Stage 1	-	-	-	-	737 -
Stage 2	-	-	-	-	404 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1189	-	-	-	163 721
Mov Cap-2 Maneuver	-	-	-	-	163 -
Stage 1	-	-	-	-	596 -
Stage 2	-	-	-	-	404 -

Approach	EB	WB	SB
HCM Control Delay, s	3	0	40.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1189	-	-	-	311
HCM Lane V/C Ratio	0.191	-	-	-	0.709
HCM Control Delay (s)	8.7	-	-	-	40.5
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	5.1

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	573	34	130	395	1	34	0	119	2	0	1
Future Vol, veh/h	1	573	34	130	395	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	585	35	133	403	1	35	0	121	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	404	0	0	620
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1166	-	-	970
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1166	-	-	970
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	28.4	34.5
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	306	1166	-	-	970	-	-	125
HCM Lane V/C Ratio	0.51	0.001	-	-	0.137	-	-	0.024
HCM Control Delay (s)	28.4	8.1	0	-	9.3	-	-	34.5
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	2.7	0	-	-	0.5	-	-	0.1

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	314	578	28	41	0
Future Vol, veh/h	1	314	578	28	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	349	642	31	46	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	673	0	0 1009 658
Stage 1	-	-	- 658 -
Stage 2	-	-	- 351 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	900	-	- *254 *607
Stage 1	-	-	- *572 -
Stage 2	-	-	- *717 -
Platoon blocked, %	1	-	- 1 1
Mov Cap-1 Maneuver	900	-	- *254 *607
Mov Cap-2 Maneuver	-	-	- *254 -
Stage 1	-	-	- *572 -
Stage 2	-	-	- *717 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	900	-	-	-	254
HCM Lane V/C Ratio	0.001	-	-	-	0.179
HCM Control Delay (s)	9	0	-	-	22.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	106	51	128	63	53	172
Future Vol, veh/h	106	51	128	63	53	172
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	116	56	141	69	58	189

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	481	176	0	0	210
Stage 1	176	-	-	-	-
Stage 2	305	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	548	872	-	-	1373
Stage 1	859	-	-	-	-
Stage 2	752	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	522	872	-	-	1373
Mov Cap-2 Maneuver	522	-	-	-	-
Stage 1	819	-	-	-	-
Stage 2	752	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.4	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	600	1373
HCM Lane V/C Ratio	-	-	0.288	0.042
HCM Control Delay (s)	-	-	13.4	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0.1

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	85	272	427	108	139	140	
Future Volume (veh/h)	85	272	427	108	139	140	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	97	309	485	123	158	159	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	179	852	563	477	731	651	
Arrive On Green	0.11	0.47	0.31	0.31	0.43	0.43	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	97	309	485	123	158	159	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.5	8.7	20.3	4.8	4.7	5.3	
Cycle Q Clear(g_c), s	4.5	8.7	20.3	4.8	4.7	5.3	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	179	852	563	477	731	651	
V/C Ratio(X)	0.54	0.36	0.86	0.26	0.22	0.24	
Avail Cap(c_a), veh/h	243	1125	765	648	731	651	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	13.4	25.8	20.5	14.5	14.7	
Incr Delay (d2), s/veh	2.5	0.3	7.5	0.3	0.7	0.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.9	3.3	9.4	1.7	1.9	5.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.2	13.6	33.4	20.8	15.2	15.6	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		406	608		317		
Approach Delay, s/veh		19.0	30.8		15.4		
Approach LOS		B	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				41.9	38.1	12.8	29.0
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				50.0	22.0	12.0	34.0
Max Q Clear Time (g_c+I1), s				10.7	7.3	6.5	22.3
Green Ext Time (p_c), s				2.0	0.8	0.1	2.8
Intersection Summary							
HCM 6th Ctrl Delay			23.5				
HCM 6th LOS			C				

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	438	0	2	599	12	0	0	2	16	0	18
Future Vol, veh/h	16	438	0	2	599	12	0	0	2	16	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	534	0	2	730	15	0	0	2	20	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	745	0	0	534	0	0	1327	1323	534	1317	1316	738
Stage 1	-	-	-	-	-	-	574	574	-	742	742	-
Stage 2	-	-	-	-	-	-	753	749	-	575	574	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	872	-	-	1044	-	-	134	158	550	136	159	421
Stage 1	-	-	-	-	-	-	507	506	-	411	425	-
Stage 2	-	-	-	-	-	-	405	422	-	507	506	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	872	-	-	1044	-	-	125	154	550	133	155	421
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	154	-	133	155	-
Stage 1	-	-	-	-	-	-	495	494	-	402	424	-
Stage 2	-	-	-	-	-	-	383	421	-	493	494	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	11.6	24.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	550	872	-	-	1044	-	-	133	421
HCM Lane V/C Ratio	-	0.004	0.022	-	-	0.002	-	-	0.147	0.052
HCM Control Delay (s)	0	11.6	9.2	-	-	8.5	-	-	36.7	14
HCM Lane LOS	A	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	0.5	0.2

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	2	4	2	192	308	4
Future Vol, veh/h	2	4	2	192	308	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	4	2	216	346	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	568	348	350	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	488	700	1220	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	487	700	1220	-	-	-
Mov Cap-2 Maneuver	487	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	821	-	-	-	-	-




Approach	EB	NB	SB
HCM Control Delay, s	11	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1220	-	611	-	-
HCM Lane V/C Ratio	0.002	-	0.011	-	-
HCM Control Delay (s)	8	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection

Int Delay, s/veh 9.1

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations						
Traffic Vol, veh/h	207	141	49	101	63	129
Future Vol, veh/h	207	141	49	101	63	129
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	230	157	54	112	70	143

Major/Minor Minor1 Major1 Major2

Conflicting Flow All	393	110	0	0	166	0
Stage 1	110	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	615	949	-	-	1424	-
Stage 1	920	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	582	949	-	-	1424	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s	16.7	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	690	1424	-
HCM Lane V/C Ratio	-	-	0.56	0.049	-
HCM Control Delay (s)	-	-	16.7	7.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	3.5	0.2	-

Intersection

Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	154	197	119	156	205	39
Future Vol, veh/h	154	197	119	156	205	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	177	226	137	179	236	45
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	15.5	13.8	12.5
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	43%	44%	0%
Vol Thru, %	57%	0%	84%
Vol Right, %	0%	56%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	275	351	244
LT Vol	119	154	0
Through Vol	156	0	205
RT Vol	0	197	39
Lane Flow Rate	316	403	280
Geometry Grp	1	1	1
Degree of Util (X)	0.488	0.588	0.424
Departure Headway (Hd)	5.562	5.246	5.444
Convergence, Y/N	Yes	Yes	Yes
Cap	648	686	659
Service Time	3.607	3.287	3.491
HCM Lane V/C Ratio	0.488	0.587	0.425
HCM Control Delay	13.8	15.5	12.5
HCM Lane LOS	B	C	B
HCM 95th-tile Q	2.7	3.9	2.1

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	16	134	140	0	102	298
Future Vol, veh/h	16	134	140	0	102	298
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	154	161	0	117	343

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	738	161	0	0	161	0
Stage 1	161	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	388	889	-	-	1430	-
Stage 1	873	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	349	889	-	-	1430	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	566	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	763	1430
HCM Lane V/C Ratio	-	-	0.226	0.082
HCM Control Delay (s)	-	-	11.1	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.3

Intersection

Int Delay, s/veh 6.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	127	329	310	11	10	305
Future Vol, veh/h	127	329	310	11	10	305
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	155	401	378	13	12	372

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	391	0	0	1096	385
Stage 1	-	-	-	385	-
Stage 2	-	-	-	711	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1179	-	-	238	667
Stage 1	-	-	-	692	-
Stage 2	-	-	-	490	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1179	-	-	207	667
Mov Cap-2 Maneuver	-	-	-	207	-
Stage 1	-	-	-	601	-
Stage 2	-	-	-	490	-

Approach

	EB	WB	SB
HCM Control Delay, s	2.4	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1179	-	-	-	623
HCM Lane V/C Ratio	0.131	-	-	-	0.617
HCM Control Delay (s)	8.5	-	-	-	19.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	4.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	11	334	320	113	130	4
Future Vol, veh/h	11	334	320	113	130	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	375	360	127	146	4

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	487	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1086	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1086	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	20.7
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1086	-	-	-	378
HCM Lane V/C Ratio	0.011	-	-	-	0.398
HCM Control Delay (s)	8.4	-	-	-	20.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	129	169	147	40	65	198
Future Vol, veh/h	129	169	147	40	65	198
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	142	186	162	44	71	218
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.5	10.7	10.2
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	79%	0%	0%
Vol Right, %	0%	0%	21%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	169	187	65	198
LT Vol	129	0	0	65	0
Through Vol	0	169	147	0	0
RT Vol	0	0	40	0	198
Lane Flow Rate	142	186	205	71	218
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.235	0.282	0.303	0.126	0.31
Departure Headway (Hd)	5.966	5.461	5.311	6.333	5.122
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	597	650	670	562	694
Service Time	3.759	3.255	3.405	4.118	2.906
HCM Lane V/C Ratio	0.238	0.286	0.306	0.126	0.314
HCM Control Delay	10.6	10.4	10.7	10	10.2
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.9	1.2	1.3	0.4	1.3

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	16	11	144	255	2
Future Vol, veh/h	0	16	11	144	255	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	18	13	164	290	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	481	291	292	0	0
Stage 1	291	-	-	-	-
Stage 2	190	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	548	753	1281	-	-
Stage 1	763	-	-	-	-
Stage 2	847	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	542	753	1281	-	-
Mov Cap-2 Maneuver	542	-	-	-	-
Stage 1	755	-	-	-	-
Stage 2	847	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1281	-	753	-	-
HCM Lane V/C Ratio	0.01	-	0.024	-	-
HCM Control Delay (s)	7.8	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	237	171	3	2	2
Future Vol, veh/h	1	237	171	3	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	249	180	3	2	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	183	0	433
Stage 1	-	-	182
Stage 2	-	-	251
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1404	-	584
Stage 1	-	-	854
Stage 2	-	-	795
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1404	-	583
Mov Cap-2 Maneuver	-	-	583
Stage 1	-	-	853
Stage 2	-	-	795

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1404	-	-	-	697
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.6	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	226	1	1	186	0	0	0	2	0	0	1
Future Vol, veh/h	1	226	1	1	186	0	0	0	2	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	240	1	1	198	0	0	0	2	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	241	0	0	444	443	241	444	443	198
Stage 1	-	-	-	-	-	-	243	243	-	200	200	-
Stage 2	-	-	-	-	-	-	201	200	-	244	243	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1387	-	-	1337	-	-	528	512	803	528	512	848
Stage 1	-	-	-	-	-	-	765	708	-	806	739	-
Stage 2	-	-	-	-	-	-	805	739	-	764	708	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1387	-	-	1337	-	-	526	511	803	526	511	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	526	511	-	526	511	-
Stage 1	-	-	-	-	-	-	764	707	-	805	738	-
Stage 2	-	-	-	-	-	-	803	738	-	761	707	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.5			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	803	1387	-	-	1337	-	-	848
HCM Lane V/C Ratio	0.003	0.001	-	-	0.001	-	-	0.001
HCM Control Delay (s)	9.5	7.6	0	-	7.7	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	27	192	69	1	141
Future Vol, veh/h	52	27	192	69	1	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	31	223	80	1	164

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	429	263	0	0	303
Stage 1	263	-	-	-	-
Stage 2	166	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	587	781	-	-	1269
Stage 1	786	-	-	-	-
Stage 2	868	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	586	781	-	-	1269
Mov Cap-2 Maneuver	586	-	-	-	-
Stage 1	785	-	-	-	-
Stage 2	868	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	641	1269
HCM Lane V/C Ratio	-	-	0.143	0.001
HCM Control Delay (s)	-	-	11.6	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0

Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	152	199	167	70	76	164
Future Vol, veh/h	152	199	167	70	76	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	165	216	182	76	83	178

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	258	0	-	0	766 220
Stage 1	-	-	-	-	220 -
Stage 2	-	-	-	-	546 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1318	-	-	-	374 825
Stage 1	-	-	-	-	821 -
Stage 2	-	-	-	-	584 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1318	-	-	-	327 825
Mov Cap-2 Maneuver	-	-	-	-	327 -
Stage 1	-	-	-	-	718 -
Stage 2	-	-	-	-	584 -

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1318	-	-	-	557
HCM Lane V/C Ratio	0.125	-	-	-	0.468
HCM Control Delay (s)	8.1	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.5

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	343	14	34	528	0	27	0	30	3	0	0
Future Vol, veh/h	0	343	14	34	528	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	418	17	41	644	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	644	0	0	435	0	0	1153	1153	427	1171	1161	644
Stage 1	-	-	-	-	-	-	427	427	-	726	726	-
Stage 2	-	-	-	-	-	-	726	726	-	445	435	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	951	-	-	1135	-	-	176	199	632	171	197	476
Stage 1	-	-	-	-	-	-	610	589	-	419	433	-
Stage 2	-	-	-	-	-	-	419	433	-	596	584	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	951	-	-	1135	-	-	171	192	632	157	190	476
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	192	-	157	190	-
Stage 1	-	-	-	-	-	-	610	589	-	419	417	-
Stage 2	-	-	-	-	-	-	404	417	-	561	584	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	22.2	28.5
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	278	951	-	-	1135	-	-	157
HCM Lane V/C Ratio	0.25	-	-	-	0.037	-	-	0.023
HCM Control Delay (s)	22.2	0	-	-	8.3	-	-	28.5
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1	0	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	495	373	61	38	1
Future Vol, veh/h	1	495	373	61	38	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	589	444	73	45	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	517	0	-	0	1072
Stage 1	-	-	-	-	481
Stage 2	-	-	-	-	591
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1049	-	-	-	224
Stage 1	-	-	-	-	673
Stage 2	-	-	-	-	557
Platoon blocked, %	1	-	-	-	1
Mov Cap-1 Maneuver	1049	-	-	-	224
Mov Cap-2 Maneuver	-	-	-	-	224
Stage 1	-	-	-	-	672
Stage 2	-	-	-	-	557

Approach	EB	WB	SB
HCM Control Delay, s	0	0	24.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1049	-	-	-	228
HCM Lane V/C Ratio	0.001	-	-	-	0.204
HCM Control Delay (s)	8.4	0	-	-	24.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

HCM 6th TWSC
2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	87	76	216	82	70	281
Future Vol, veh/h	87	76	216	82	70	281
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	105	92	260	99	84	339

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	817	310	0	0	359
Stage 1	310	-	-	-	-
Stage 2	507	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	349	735	-	-	1211
Stage 1	748	-	-	-	-
Stage 2	609	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	319	735	-	-	1211
Mov Cap-2 Maneuver	319	-	-	-	-
Stage 1	684	-	-	-	-
Stage 2	609	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	433	1211
HCM Lane V/C Ratio	-	-	0.454	0.07
HCM Control Delay (s)	-	-	20	8.2
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.3	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	107	418	318	189	253	109	
Future Volume (veh/h)	107	418	318	189	253	109	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	126	492	374	222	298	128	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	190	752	450	382	827	736	
Arrive On Green	0.12	0.42	0.25	0.25	0.48	0.48	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	126	492	374	222	298	128	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	6.0	17.5	15.7	10.2	8.7	3.8	
Cycle Q Clear(g_c), s	6.0	17.5	15.7	10.2	8.7	3.8	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	190	752	450	382	827	736	
V/C Ratio(X)	0.66	0.65	0.83	0.58	0.36	0.17	
Avail Cap(c_a), veh/h	263	1013	630	534	827	736	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.8	18.7	28.4	26.3	13.0	11.7	
Incr Delay (d2), s/veh	3.9	1.0	6.6	1.4	1.2	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.5	7.0	7.3	3.7	3.4	4.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	37.7	19.7	34.9	27.7	14.2	12.2	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		618	596		426		
Approach Delay, s/veh		23.3	32.3		13.6		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				37.4	42.6	13.4	24.0
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				19.5	10.7	8.0	17.7
Green Ext Time (p_c), s				3.3	1.2	0.1	2.3
Intersection Summary							
HCM 6th Ctrl Delay			24.0				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↶	↷		↶	↷
Traffic Vol, veh/h	35	807	2	5	577	44	3	0	1	40	1	46
Future Vol, veh/h	35	807	2	5	577	44	3	0	1	40	1	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	37	849	2	5	607	46	3	0	1	42	1	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	653	0	0	851	0	0	1589	1587	850	1565	1565	630
Stage 1	-	-	-	-	-	-	924	924	-	640	640	-
Stage 2	-	-	-	-	-	-	665	663	-	925	925	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	943	-	-	796	-	-	88	109	363	91	113	485
Stage 1	-	-	-	-	-	-	326	351	-	467	473	-
Stage 2	-	-	-	-	-	-	453	462	-	325	351	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	943	-	-	796	-	-	76	104	363	88	108	485
Mov Cap-2 Maneuver	-	-	-	-	-	-	76	104	-	88	108	-
Stage 1	-	-	-	-	-	-	313	337	-	449	470	-
Stage 2	-	-	-	-	-	-	404	459	-	311	337	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			44.5			44.8		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	76	363	943	-	-	796	-	-	88	485
HCM Lane V/C Ratio	0.042	0.003	0.039	-	-	0.007	-	-	0.49	0.1
HCM Control Delay (s)	54.4	14.9	9	-	-	9.6	-	-	80.2	13.2
HCM Lane LOS	F	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	2.1	0.3

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	788	549	111	144	77
Future Volume (veh/h)	60	788	549	111	144	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	65	857	597	121	157	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	155	1192	931	789	385	362
Arrive On Green	0.10	0.66	0.52	0.52	0.24	0.24
Sat Flow, veh/h	1619	1800	1800	1525	1619	1525
Grp Volume(v), veh/h	65	857	597	121	157	84
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1619	1525
Q Serve(g_s), s	3.0	24.5	19.2	3.3	6.6	3.6
Cycle Q Clear(g_c), s	3.0	24.5	19.2	3.3	6.6	3.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	155	1193	931	789	385	362
V/C Ratio(X)	0.42	0.72	0.64	0.15	0.41	0.23
Avail Cap(c_a), veh/h	202	1193	931	789	385	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	8.7	14.0	10.1	25.8	24.6
Incr Delay (d2), s/veh	1.8	3.7	3.4	0.4	3.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.8	7.9	1.1	2.8	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.9	12.4	17.4	10.5	28.9	26.1
LnGrp LOS	D	B	B	B	C	C
Approach Vol, veh/h		922	718		241	
Approach Delay, s/veh		14.1	16.2		28.0	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	11.6	45.4
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		26.5		8.6	5.0	21.2
Green Ext Time (p_c), s		7.3		0.5	0.0	4.2
Intersection Summary						
HCM 6th Ctrl Delay			16.7			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	1	20	21	278	262	3
Future Vol, veh/h	1	20	21	278	262	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	21	22	290	273	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	609	275	276	0	0
Stage 1	275	-	-	-	-
Stage 2	334	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	462	769	1299	-	-
Stage 1	776	-	-	-	-
Stage 2	730	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	453	769	1299	-	-
Mov Cap-2 Maneuver	453	-	-	-	-
Stage 1	760	-	-	-	-
Stage 2	730	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1299	-	744	-	-
HCM Lane V/C Ratio	0.017	-	0.029	-	-
HCM Control Delay (s)	7.8	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	9.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	223	139	87	172	71	155
Future Vol, veh/h	223	139	87	172	71	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	235	146	92	181	75	163

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	496	183	0	0	273
Stage 1	183	-	-	-	-
Stage 2	313	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	537	865	-	-	1302
Stage 1	853	-	-	-	-
Stage 2	746	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	503	865	-	-	1302
Mov Cap-2 Maneuver	503	-	-	-	-
Stage 1	799	-	-	-	-
Stage 2	746	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	599	1302
HCM Lane V/C Ratio	-	-	0.636	0.057
HCM Control Delay (s)	-	-	20.9	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.5	0.2

Intersection

Intersection Delay, s/veh	36
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	192	208	226	333	254	46
Future Vol, veh/h	192	208	226	333	254	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	200	217	235	347	265	48
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	23.9	55.1	16.7
HCM LOS	C	F	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	48%	0%
Vol Thru, %	60%	0%	85%
Vol Right, %	0%	52%	15%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	559	400	300
LT Vol	226	192	0
Through Vol	333	0	254
RT Vol	0	208	46
Lane Flow Rate	582	417	313
Geometry Grp	1	1	1
Degree of Util (X)	0.975	0.722	0.546
Departure Headway (Hd)	6.029	6.237	6.288
Convergence, Y/N	Yes	Yes	Yes
Cap	606	579	572
Service Time	4.029	4.286	4.342
HCM Lane V/C Ratio	0.96	0.72	0.547
HCM Control Delay	55.1	23.9	16.7
HCM Lane LOS	F	C	C
HCM 95th-tile Q	13.9	6	3.3

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	1	159	408	0	125	338
Future Vol, veh/h	1	159	408	0	125	338
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	164	421	0	129	348

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1027	421	0	0	421	0
Stage 1	421	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	262	637	-	-	1149	-
Stage 1	667	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	226	637	-	-	1149	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	548	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	630	1149
HCM Lane V/C Ratio	-	-	0.262	0.112
HCM Control Delay (s)	-	-	12.7	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.4

Intersection						
Int Delay, s/veh	8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	391	540	339	12	12	326
Future Vol, veh/h	391	540	339	12	12	326
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	412	568	357	13	13	343

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	370	0	-	0	1756 364
Stage 1	-	-	-	-	364 -
Stage 2	-	-	-	-	1392 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1200	-	-	-	95 685
Stage 1	-	-	-	-	707 -
Stage 2	-	-	-	-	233 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1200	-	-	-	62 685
Mov Cap-2 Maneuver	-	-	-	-	62 -
Stage 1	-	-	-	-	464 -
Stage 2	-	-	-	-	233 -

Approach	EB	WB	SB
HCM Control Delay, s	4	0	27.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1200	-	-	-	505
HCM Lane V/C Ratio	0.343	-	-	-	0.705
HCM Control Delay (s)	9.6	-	-	-	27.4
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	1.5	-	-	-	5.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	7	544	355	180	130	7
Future Vol, veh/h	7	544	355	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	598	390	198	143	8

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	588	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	997	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	997	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	32.7
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	997	-	-	-	276
HCM Lane V/C Ratio	0.008	-	-	-	0.545
HCM Control Delay (s)	8.6	-	-	-	32.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	230	310	225	99	86	201
Future Vol, veh/h	230	310	225	99	86	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	253	341	247	109	95	221
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.6	16.7	12.5
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	310	324	86	201
LT Vol	230	0	0	86	0
Through Vol	0	310	225	0	0
RT Vol	0	0	99	0	201
Lane Flow Rate	253	341	356	95	221
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.457	0.567	0.58	0.194	0.379
Departure Headway (Hd)	6.504	5.997	5.86	7.398	6.175
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	554	600	616	485	581
Service Time	4.25	3.742	3.904	5.151	3.928
HCM Lane V/C Ratio	0.457	0.568	0.578	0.196	0.38
HCM Control Delay	14.6	16.4	16.7	11.9	12.7
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.4	3.5	3.7	0.7	1.8

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	25	18	259	243	0
Future Vol, veh/h	0	25	18	259	243	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	27	20	282	264	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	586	264	264	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	322	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	476	780	1312	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	467	780	1312	-	-	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1312	-	780	-	-
HCM Lane V/C Ratio	0.015	-	0.035	-	-
HCM Control Delay (s)	7.8	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
 14: SR-189 & Rocky Point Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	20	366	299	2	2	9
Future Vol, veh/h	20	366	299	2	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	431	352	2	2	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	354	0	-	0	832
Stage 1	-	-	-	-	353
Stage 2	-	-	-	-	479
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1216	-	-	-	342
Stage 1	-	-	-	-	716
Stage 2	-	-	-	-	627
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1216	-	-	-	333
Mov Cap-2 Maneuver	-	-	-	-	333
Stage 1	-	-	-	-	697
Stage 2	-	-	-	-	627

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1216	-	-	-	580
HCM Lane V/C Ratio	0.019	-	-	-	0.022
HCM Control Delay (s)	8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	355	8	0	288	1	7	0	0	1	0	11
Future Vol, veh/h	9	355	8	0	288	1	7	0	0	1	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	418	9	0	339	1	8	0	0	1	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	340	0	0	427	0	0	791	785	423	785	789	340
Stage 1	-	-	-	-	-	-	445	445	-	340	340	-
Stage 2	-	-	-	-	-	-	346	340	-	445	449	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1230	-	-	1143	-	-	310	327	635	313	325	707
Stage 1	-	-	-	-	-	-	596	578	-	679	643	-
Stage 2	-	-	-	-	-	-	674	643	-	596	576	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1230	-	-	1143	-	-	302	323	635	310	321	707
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	323	-	310	321	-
Stage 1	-	-	-	-	-	-	589	571	-	671	643	-
Stage 2	-	-	-	-	-	-	662	643	-	589	569	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	17.3	10.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	302	1230	-	-	1143	-	-	639
HCM Lane V/C Ratio	0.027	0.009	-	-	-	-	-	0.022
HCM Control Delay (s)	17.3	8	0	-	0	-	-	10.8
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	9	3	283	14	2	175
Future Vol, veh/h	9	3	283	14	2	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	3	314	16	2	194

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	520	322	0	0	330
Stage 1	322	-	-	-	-
Stage 2	198	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	520	724	-	-	1241
Stage 1	739	-	-	-	-
Stage 2	840	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	519	724	-	-	1241
Mov Cap-2 Maneuver	519	-	-	-	-
Stage 1	738	-	-	-	-
Stage 2	840	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	559	1241
HCM Lane V/C Ratio	-	-	0.024	0.002
HCM Control Delay (s)	-	-	11.6	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	12.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	242	412	256	104	78	151
Future Vol, veh/h	242	412	256	104	78	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	263	448	278	113	85	164

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	391	0	-	0	1309 335
Stage 1	-	-	-	-	335 -
Stage 2	-	-	-	-	974 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1179	-	-	-	177 712
Stage 1	-	-	-	-	729 -
Stage 2	-	-	-	-	369 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1179	-	-	-	138 712
Mov Cap-2 Maneuver	-	-	-	-	138 -
Stage 1	-	-	-	-	566 -
Stage 2	-	-	-	-	369 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	58.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1179	-	-	-	295
HCM Lane V/C Ratio	0.223	-	-	-	0.844
HCM Control Delay (s)	8.9	-	-	-	58.7
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.9	-	-	-	7.2

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	616	34	130	450	1	34	0	119	2	0	1
Future Vol, veh/h	1	616	34	130	450	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	629	35	133	459	1	35	0	121	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	664	0	0	1375	1375	647	1435	1392	460
Stage 1	-	-	-	-	-	-	649	649	-	726	726	-
Stage 2	-	-	-	-	-	-	726	726	-	709	666	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1112	-	-	935	-	-	124	147	475	113	143	605
Stage 1	-	-	-	-	-	-	462	469	-	419	433	-
Stage 2	-	-	-	-	-	-	419	433	-	428	460	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1112	-	-	935	-	-	110	126	475	75	123	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	126	-	75	123	-
Stage 1	-	-	-	-	-	-	462	469	-	419	372	-
Stage 2	-	-	-	-	-	-	359	372	-	318	460	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.1	34.4	40
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	273	1112	-	-	935	-	-	106
HCM Lane V/C Ratio	0.572	0.001	-	-	0.142	-	-	0.029
HCM Control Delay (s)	34.4	8.2	0	-	9.5	-	-	40
HCM Lane LOS	D	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	3.3	0	-	-	0.5	-	-	0.1

Intersection

Int Delay, s/veh 1.3

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	1	324	588	38	51	0
Future Vol, veh/h	1	324	588	38	51	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	360	653	42	57	0

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	695	0	-	0	1036	674
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	362	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	871	-	-	-	238	595
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	709	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	871	-	-	-	237	595
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	709	-

Approach EB WB SB

HCM Control Delay, s	0	0	24.9
HCM LOS			C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	871	-	-	-	237
HCM Lane V/C Ratio	0.001	-	-	-	0.239
HCM Control Delay (s)	9.1	0	-	-	24.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	106	51	158	63	53	201
Future Vol, veh/h	106	51	158	63	53	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	116	56	174	69	58	221

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	546	209	0	0	243	0
Stage 1	209	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	502	836	-	-	1335	-
Stage 1	831	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	477	836	-	-	1335	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	554	1335
HCM Lane V/C Ratio	-	-	0.311	0.044
HCM Control Delay (s)	-	-	14.4	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↑	↑	↗	↖	↗	
Traffic Volume (veh/h)	85	292	447	138	168	140	
Future Volume (veh/h)	85	292	447	138	168	140	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	
Adj Flow Rate, veh/h	97	332	508	157	191	159	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	179	878	589	499	706	629	
Arrive On Green	0.11	0.49	0.33	0.33	0.41	0.41	
Sat Flow, veh/h	1619	1800	1800	1525	1714	1525	
Grp Volume(v), veh/h	97	332	508	157	191	159	
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1714	1525	
Q Serve(g_s), s	4.5	9.3	21.2	6.2	5.9	5.5	
Cycle Q Clear(g_c), s	4.5	9.3	21.2	6.2	5.9	5.5	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	179	878	589	499	706	629	
V/C Ratio(X)	0.54	0.38	0.86	0.31	0.27	0.25	
Avail Cap(c_a), veh/h	223	1125	788	667	706	629	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.7	12.9	25.2	20.2	15.6	15.4	
Incr Delay (d2), s/veh	2.5	0.3	7.6	0.4	0.9	1.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.9	3.5	9.8	2.2	2.4	5.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.2	13.1	32.8	20.5	16.5	16.4	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		429	665		350		
Approach Delay, s/veh		18.3	29.9		16.5		
Approach LOS		B	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				43.0	37.0	12.8	30.2
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				50.0	22.0	11.0	35.0
Max Q Clear Time (g_c+I1), s				11.3	7.9	6.5	23.2
Green Ext Time (p_c), s				2.2	0.9	0.1	3.0
Intersection Summary							
HCM 6th Ctrl Delay			23.2				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	487	0	2	649	32	0	0	2	36	0	18
Future Vol, veh/h	16	487	0	2	649	32	0	0	2	36	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	594	0	2	791	39	0	0	2	44	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	830	0	0	594	0	0	1460	1468	594	1450	1449	811
Stage 1	-	-	-	-	-	-	634	634	-	815	815	-
Stage 2	-	-	-	-	-	-	826	834	-	635	634	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	811	-	-	992	-	-	108	129	509	110	132	383
Stage 1	-	-	-	-	-	-	471	476	-	374	394	-
Stage 2	-	-	-	-	-	-	369	386	-	470	476	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	811	-	-	992	-	-	100	126	509	107	128	383
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	126	-	107	128	-
Stage 1	-	-	-	-	-	-	459	464	-	365	393	-
Stage 2	-	-	-	-	-	-	347	385	-	456	464	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	12.1	45.2
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	509	811	-	-	992	-	-	107	383
HCM Lane V/C Ratio	-	0.005	0.024	-	-	0.002	-	-	0.41	0.057
HCM Control Delay (s)	0	12.1	9.5	-	-	8.6	-	-	60.3	15
HCM Lane LOS		A	B	A	-	A	-	-	F	C
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	1.7	0.2

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	68	456	613	127	130	70
Future Volume (veh/h)	68	456	613	127	130	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	74	496	666	138	141	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	163	1192	921	780	385	362
Arrive On Green	0.10	0.66	0.51	0.51	0.24	0.24
Sat Flow, veh/h	1619	1800	1800	1525	1619	1525
Grp Volume(v), veh/h	74	496	666	138	141	76
Grp Sat Flow(s),veh/h/ln	1619	1800	1800	1525	1619	1525
Q Serve(g_s), s	3.4	10.3	22.9	3.9	5.8	3.2
Cycle Q Clear(g_c), s	3.4	10.3	22.9	3.9	5.8	3.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	163	1193	921	780	385	362
V/C Ratio(X)	0.45	0.42	0.72	0.18	0.37	0.21
Avail Cap(c_a), veh/h	202	1193	921	780	385	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	6.3	15.1	10.5	25.5	24.5
Incr Delay (d2), s/veh	2.0	1.1	4.9	0.5	2.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.5	9.7	1.3	2.5	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	7.4	20.1	11.0	28.2	25.8
LnGrp LOS	D	A	C	B	C	C
Approach Vol, veh/h		570	804		217	
Approach Delay, s/veh		11.1	18.5		27.3	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	12.1	44.9
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		12.3		7.8	5.4	24.9
Green Ext Time (p_c), s		3.6		0.5	0.0	4.4
Intersection Summary						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	16	14	204	320	4
Future Vol, veh/h	2	16	14	204	320	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	18	16	229	360	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	623	362	364	0	-	0
Stage 1	362	-	-	-	-	-
Stage 2	261	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	453	687	1206	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	446	687	1206	-	-	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	787	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1206	-	648	-	-
HCM Lane V/C Ratio	0.013	-	0.031	-	-
HCM Control Delay (s)	8	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	10.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	230	141	55	125	63	135
Future Vol, veh/h	230	141	55	125	63	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	256	157	61	139	70	150

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	421	131	0	0	200
Stage 1	131	-	-	-	-
Stage 2	290	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	593	924	-	-	1384
Stage 1	900	-	-	-	-
Stage 2	764	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	560	924	-	-	1384
Mov Cap-2 Maneuver	560	-	-	-	-
Stage 1	851	-	-	-	-
Stage 2	764	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	659	1384
HCM Lane V/C Ratio	-	-	0.626	0.051
HCM Control Delay (s)	-	-	19.1	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.4	0.2

Intersection

Intersection Delay, s/veh	19
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	154	226	149	206	254	39
Future Vol, veh/h	154	226	149	206	254	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	177	260	171	237	292	45
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.4	20	15.8
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	42%	41%	0%
Vol Thru, %	58%	0%	87%
Vol Right, %	0%	59%	13%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	355	380	293
LT Vol	149	154	0
Through Vol	206	0	254
RT Vol	0	226	39
Lane Flow Rate	408	437	337
Geometry Grp	1	1	1
Degree of Util (X)	0.666	0.687	0.546
Departure Headway (Hd)	5.875	5.663	5.838
Convergence, Y/N	Yes	Yes	Yes
Cap	612	633	613
Service Time	3.955	3.738	3.923
HCM Lane V/C Ratio	0.667	0.69	0.55
HCM Control Delay	20	20.4	15.8
HCM Lane LOS	C	C	C
HCM 95th-tile Q	5	5.4	3.3

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	16	134	220	0	102	376
Future Vol, veh/h	16	134	220	0	102	376
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	154	253	0	117	432

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	919	253	0	0	253	0
Stage 1	253	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	304	791	-	-	1324	-
Stage 1	794	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	269	791	-	-	1324	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	515	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	655	1324
HCM Lane V/C Ratio	-	-	0.263	0.089
HCM Control Delay (s)	-	-	12.4	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.1	0.3

Intersection						
Int Delay, s/veh	12.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	207	379	359	11	10	383
Future Vol, veh/h	207	379	359	11	10	383
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	252	462	438	13	12	467

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	451	0	-	0	1411 445
Stage 1	-	-	-	-	445 -
Stage 2	-	-	-	-	966 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1120	-	-	-	154 617
Stage 1	-	-	-	-	650 -
Stage 2	-	-	-	-	372 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1120	-	-	-	119 617
Mov Cap-2 Maneuver	-	-	-	-	119 -
Stage 1	-	-	-	-	504 -
Stage 2	-	-	-	-	372 -

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	38.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1120	-	-	-	558
HCM Lane V/C Ratio	0.225	-	-	-	0.859
HCM Control Delay (s)	9.1	-	-	-	38.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.9	-	-	-	9.4

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↗
Traffic Vol, veh/h	11	384	369	113	130	4
Future Vol, veh/h	11	384	369	113	130	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	431	415	127	146	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	542	0	0	870	415
Stage 1	-	-	-	415	-
Stage 2	-	-	-	455	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1037	-	-	325	642
Stage 1	-	-	-	671	-
Stage 2	-	-	-	643	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1037	-	-	321	642
Mov Cap-2 Maneuver	-	-	-	321	-
Stage 1	-	-	-	663	-
Stage 2	-	-	-	643	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.2	0	25.2
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1037	-	-	-	326
HCM Lane V/C Ratio	0.012	-	-	-	0.462
HCM Control Delay (s)	8.5	-	-	-	25.2
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.3

Intersection

Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	149	199	176	40	65	218
Future Vol, veh/h	149	199	176	40	65	218
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	164	219	193	44	71	240
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.4	11.8	11
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	199	216	65	218
LT Vol	149	0	0	65	0
Through Vol	0	199	176	0	0
RT Vol	0	0	40	0	218
Lane Flow Rate	164	219	237	71	240
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.282	0.346	0.368	0.132	0.362
Departure Headway (Hd)	6.205	5.699	5.587	6.651	5.437
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	580	632	646	540	664
Service Time	3.929	3.423	3.612	4.378	3.164
HCM Lane V/C Ratio	0.283	0.347	0.367	0.131	0.361
HCM Control Delay	11.4	11.4	11.8	10.4	11.2
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.2	1.5	1.7	0.5	1.7

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	24	19	156	267	2
Future Vol, veh/h	0	24	19	156	267	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	27	22	177	303	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	525	304	305	0	-	0
Stage 1	304	-	-	-	-	-
Stage 2	221	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	516	740	1267	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	506	740	1267	-	-	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1267	-	740	-	-
HCM Lane V/C Ratio	0.017	-	0.037	-	-
HCM Control Delay (s)	7.9	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	7	257	191	3	2	8
Future Vol, veh/h	7	257	191	3	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	271	201	3	2	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	204	0	-	0	488 203
Stage 1	-	-	-	-	203 -
Stage 2	-	-	-	-	285 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1380	-	-	-	543 843
Stage 1	-	-	-	-	836 -
Stage 2	-	-	-	-	768 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1380	-	-	-	540 843
Mov Cap-2 Maneuver	-	-	-	-	540 -
Stage 1	-	-	-	-	831 -
Stage 2	-	-	-	-	768 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1380	-	-	-	758
HCM Lane V/C Ratio	0.005	-	-	-	0.014
HCM Control Delay (s)	7.6	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	238	7	1	198	0	6	0	2	0	0	5
Future Vol, veh/h	5	238	7	1	198	0	6	0	2	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	253	7	1	211	0	6	0	2	0	0	5

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	211	0	0	260
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1372	-	-	1316
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1372	-	-	1316
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	11.7	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	543	1372	-	-	1316	-	-	834
HCM Lane V/C Ratio	0.016	0.004	-	-	0.001	-	-	0.006
HCM Control Delay (s)	11.7	7.6	0	-	7.7	0	-	9.3
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	62	27	202	79	1	151
Future Vol, veh/h	62	27	202	79	1	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	72	31	235	92	1	176

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	459	281	0	0	327
Stage 1	281	-	-	-	-
Stage 2	178	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	564	763	-	-	1244
Stage 1	771	-	-	-	-
Stage 2	858	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	563	763	-	-	1244
Mov Cap-2 Maneuver	563	-	-	-	-
Stage 1	770	-	-	-	-
Stage 2	858	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	612	1244
HCM Lane V/C Ratio	-	-	0.169	0.001
HCM Control Delay (s)	-	-	12.1	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	7.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	182	209	177	70	76	193
Future Vol, veh/h	182	209	177	70	76	193
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	198	227	192	76	83	210

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	268	0	-	0	853 230
Stage 1	-	-	-	-	230 -
Stage 2	-	-	-	-	623 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1307	-	-	-	332 814
Stage 1	-	-	-	-	813 -
Stage 2	-	-	-	-	539 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1307	-	-	-	282 814
Mov Cap-2 Maneuver	-	-	-	-	282 -
Stage 1	-	-	-	-	690 -
Stage 2	-	-	-	-	539 -

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1307	-	-	-	531
HCM Lane V/C Ratio	0.151	-	-	-	0.551
HCM Control Delay (s)	8.2	-	-	-	19.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	3.3

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	392	14	34	578	0	27	0	30	3	0	0
Future Vol, veh/h	0	392	14	34	578	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	478	17	41	705	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	705	0	0	495	0	0	1274	1274	487	1292	1282	705
Stage 1	-	-	-	-	-	-	487	487	-	787	787	-
Stage 2	-	-	-	-	-	-	787	787	-	505	495	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	902	-	-	1079	-	-	145	169	585	141	167	440
Stage 1	-	-	-	-	-	-	566	554	-	388	406	-
Stage 2	-	-	-	-	-	-	388	406	-	553	549	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	902	-	-	1079	-	-	141	163	585	128	161	440
Mov Cap-2 Maneuver	-	-	-	-	-	-	141	163	-	128	161	-
Stage 1	-	-	-	-	-	-	566	554	-	388	391	-
Stage 2	-	-	-	-	-	-	373	391	-	518	549	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	26.6	34
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	235	902	-	-	1079	-	-	128
HCM Lane V/C Ratio	0.296	-	-	-	0.038	-	-	0.029
HCM Control Delay (s)	26.6	0	-	-	8.5	-	-	34
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.2	0	-	-	0.1	-	-	0.1

HCM 6th TWSC
1: SR-18 & Crest Forest Dr.

08/18/2017

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	526	443	64	39	1
Future Vol, veh/h	1	526	443	64	39	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	554	466	67	41	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	533	0	0 1056 500
Stage 1	-	-	- 500 -
Stage 2	-	-	- 556 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1047	-	- *227 *725
Stage 1	-	-	- *683 -
Stage 2	-	-	- *578 -
Platoon blocked, %	1	-	- 1 1
Mov Cap-1 Maneuver	1047	-	- *227 *725
Mov Cap-2 Maneuver	-	-	- *227 -
Stage 1	-	-	- *683 -
Stage 2	-	-	- *578 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	24
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1047	-	-	-	231
HCM Lane V/C Ratio	0.001	-	-	-	0.182
HCM Control Delay (s)	8.4	0	-	-	24
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	101	95	230	86	89	318
Future Vol, veh/h	101	95	230	86	89	318
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	106	100	242	91	94	335

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	811	288	0	0	333
Stage 1	288	-	-	-	-
Stage 2	523	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	352	756	-	-	1238
Stage 1	766	-	-	-	-
Stage 2	599	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	319	756	-	-	1238
Mov Cap-2 Maneuver	319	-	-	-	-
Stage 1	695	-	-	-	-
Stage 2	599	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	1.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	443	1238
HCM Lane V/C Ratio	-	-	0.466	0.076
HCM Control Delay (s)	-	-	20	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.4	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	118	447	372	190	273	136	
Future Volume (veh/h)	118	447	372	190	273	136	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900	
Adj Flow Rate, veh/h	124	471	392	200	287	143	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	201	791	473	401	829	779	
Arrive On Green	0.12	0.42	0.25	0.25	0.48	0.48	
Sat Flow, veh/h	1714	1900	1900	1610	1714	1610	
Grp Volume(v), veh/h	124	471	392	200	287	143	
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1610	1714	1610	
Q Serve(g_s), s	5.5	15.4	15.6	8.5	8.3	4.0	
Cycle Q Clear(g_c), s	5.5	15.4	15.6	8.5	8.3	4.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	201	791	473	401	829	779	
V/C Ratio(X)	0.62	0.60	0.83	0.50	0.35	0.18	
Avail Cap(c_a), veh/h	279	1069	665	564	829	779	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.6	18.1	28.4	25.8	12.8	11.7	
Incr Delay (d2), s/veh	3.1	0.7	6.1	1.0	1.1	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.4	6.5	7.6	3.3	3.2	4.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.7	18.9	34.5	26.7	13.9	12.2	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		595	592		430		
Approach Delay, s/veh		22.6	31.9		13.4		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				37.3	42.7	13.4	23.9
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				17.4	10.3	7.5	17.6
Green Ext Time (p_c), s				3.2	1.2	0.1	2.3
Intersection Summary							
HCM 6th Ctrl Delay			23.5				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	831	2	7	618	27	4	0	1	25	1	54
Future Vol, veh/h	41	831	2	7	618	27	4	0	1	25	1	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	875	2	7	651	28	4	0	1	26	1	57

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	679	0	0	877
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	923	-	-	779
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	923	-	-	779
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	55.2	33.5
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	64	351	923	-	-	779	-	-	78	464
HCM Lane V/C Ratio	0.066	0.003	0.047	-	-	0.009	-	-	0.351	0.123
HCM Control Delay (s)	65.2	15.3	9.1	-	-	9.7	-	-	74.3	13.8
HCM Lane LOS	F	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	0	0.1	-	-	0	-	-	1.3	0.4

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	11	9	294	281	3
Future Vol, veh/h	1	11	9	294	281	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	12	9	309	296	3

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	625	298	299	0	-	0
Stage 1	298	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	452	746	1274	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	448	746	1274	-	-	-
Mov Cap-2 Maneuver	448	-	-	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	735	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1274	-	707	-	-
HCM Lane V/C Ratio	0.007	-	0.018	-	-
HCM Control Delay (s)	7.8	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 10.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	227	156	83	159	79	165
Future Vol, veh/h	227	156	83	159	79	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	239	164	87	167	83	174

Major/Minor

	Minor1	Major1	Major2		
Conflicting Flow All	511	171	0	0	254
Stage 1	171	-	-	-	-
Stage 2	340	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	526	878	-	-	1323
Stage 1	864	-	-	-	-
Stage 2	725	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	493	878	-	-	1323
Mov Cap-2 Maneuver	493	-	-	-	-
Stage 1	810	-	-	-	-
Stage 2	725	-	-	-	-

Approach

	WB	NB	SB
HCM Control Delay, s	22.4	0	2.6
HCM LOS	C		

Minor Lane/Major Mvmt

	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	600	1323
HCM Lane V/C Ratio	-	-	0.672	0.063
HCM Control Delay (s)	-	-	22.4	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	5.1	0.2

Intersection

Intersection Delay, s/veh	26.6
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	215	193	202	301	228	51
Future Vol, veh/h	215	193	202	301	228	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	226	203	213	317	240	54
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	23.5	35.3	15.3
HCM LOS	C	E	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	53%	0%
Vol Thru, %	60%	0%	82%
Vol Right, %	0%	47%	18%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	503	408	279
LT Vol	202	215	0
Through Vol	301	0	228
RT Vol	0	193	51
Lane Flow Rate	529	429	294
Geometry Grp	1	1	1
Degree of Util (X)	0.862	0.726	0.504
Departure Headway (Hd)	5.99	6.089	6.176
Convergence, Y/N	Yes	Yes	Yes
Cap	609	597	584
Service Time	3.99	4.089	4.204
HCM Lane V/C Ratio	0.869	0.719	0.503
HCM Control Delay	35.3	23.5	15.3
HCM Lane LOS	E	C	C
HCM 95th-tile Q	9.7	6.1	2.8

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	179	362	0	139	308
Future Vol, veh/h	1	179	362	0	139	308
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	188	381	0	146	324

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	997	381	0	0	381	0
Stage 1	381	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	273	671	-	-	1189	-
Stage 1	695	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	232	671	-	-	1189	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	543	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	2.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	664	1189
HCM Lane V/C Ratio	-	-	0.285	0.123
HCM Control Delay (s)	-	-	12.6	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0.4

HCM 6th TWSC
10: SR-18 & Daley Canyon Rd.

08/18/2017

Intersection

Int Delay, s/veh 7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	348	509	356	14	13	296
Future Vol, veh/h	348	509	356	14	13	296
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	366	536	375	15	14	312

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	390	0	0	1651	383
Stage 1	-	-	-	383	-
Stage 2	-	-	-	1268	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1180	-	-	110	669
Stage 1	-	-	-	694	-
Stage 2	-	-	-	267	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1180	-	-	76	669
Mov Cap-2 Maneuver	-	-	-	76	-
Stage 1	-	-	-	479	-
Stage 2	-	-	-	267	-

Approach

	EB	WB	SB
HCM Control Delay, s	3.8	0	24.2
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1180	-	-	-	504
HCM Lane V/C Ratio	0.31	-	-	-	0.645
HCM Control Delay (s)	9.4	-	-	-	24.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1.3	-	-	-	4.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	515	361	217	157	8
Future Vol, veh/h	8	515	361	217	157	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	542	380	228	165	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	608	0	0	938	380
Stage 1	-	-	-	380	-
Stage 2	-	-	-	558	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	980	-	-	296	671
Stage 1	-	-	-	696	-
Stage 2	-	-	-	577	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	980	-	-	294	671
Mov Cap-2 Maneuver	-	-	-	294	-
Stage 1	-	-	-	690	-
Stage 2	-	-	-	577	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	31.9
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	980	-	-	-	302
HCM Lane V/C Ratio	0.009	-	-	-	0.575
HCM Control Delay (s)	8.7	-	-	-	31.9
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3.4

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	221	285	204	105	91	196
Future Vol, veh/h	221	285	204	105	91	196
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	233	300	215	111	96	206
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.8	14.7	11.7
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	66%	0%	0%
Vol Right, %	0%	0%	34%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	221	285	309	91	196
LT Vol	221	0	0	91	0
Through Vol	0	285	204	0	0
RT Vol	0	0	105	0	196
Lane Flow Rate	233	300	325	96	206
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.412	0.489	0.515	0.191	0.342
Departure Headway (Hd)	6.377	5.871	5.705	7.187	5.967
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	565	615	631	499	602
Service Time	4.114	3.607	3.741	4.931	3.711
HCM Lane V/C Ratio	0.412	0.488	0.515	0.192	0.342
HCM Control Delay	13.5	14.1	14.7	11.6	11.8
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	2	2.7	3	0.7	1.5

HCM 6th TWSC
13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	21	10	280	265	0
Future Vol, veh/h	0	21	10	280	265	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	22	11	295	279	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	596	279	279	0	-	0
Stage 1	279	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	470	765	1295	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	465	765	1295	-	-	-
Mov Cap-2 Maneuver	465	-	-	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	743	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1295	-	765	-	-
HCM Lane V/C Ratio	0.008	-	0.029	-	-
HCM Control Delay (s)	7.8	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	13	361	296	2	2	4
Future Vol, veh/h	13	361	296	2	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	380	312	2	2	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	314	0	-	0	721 313
Stage 1	-	-	-	-	313 -
Stage 2	-	-	-	-	408 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1258	-	-	-	397 732
Stage 1	-	-	-	-	746 -
Stage 2	-	-	-	-	676 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1258	-	-	-	391 732
Mov Cap-2 Maneuver	-	-	-	-	391 -
Stage 1	-	-	-	-	736 -
Stage 2	-	-	-	-	676 -

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1258	-	-	-	567
HCM Lane V/C Ratio	0.011	-	-	-	0.011
HCM Control Delay (s)	7.9	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	359	1	0	292	1	2	0	0	1	0	8
Future Vol, veh/h	5	359	1	0	292	1	2	0	0	1	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	378	1	0	307	1	2	0	0	1	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	308	0	0	379	0	0	701	697	379	697	697	308
Stage 1	-	-	-	-	-	-	389	389	-	308	308	-
Stage 2	-	-	-	-	-	-	312	308	-	389	389	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1264	-	-	1191	-	-	356	367	672	358	367	737
Stage 1	-	-	-	-	-	-	639	612	-	706	664	-
Stage 2	-	-	-	-	-	-	703	664	-	639	612	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1264	-	-	1191	-	-	351	365	672	357	365	737
Mov Cap-2 Maneuver	-	-	-	-	-	-	351	365	-	357	365	-
Stage 1	-	-	-	-	-	-	636	609	-	702	664	-
Stage 2	-	-	-	-	-	-	695	664	-	636	609	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	15.3	10.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	351	1264	-	-	1191	-	-	659
HCM Lane V/C Ratio	0.006	0.004	-	-	-	-	-	0.014
HCM Control Delay (s)	15.3	7.9	0	-	0	-	-	10.5
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	291	3	2	175
Future Vol, veh/h	0	3	291	3	2	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	3	306	3	2	184

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	496	308	0	0	309
Stage 1	308	-	-	-	-
Stage 2	188	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	537	737	-	-	1263
Stage 1	750	-	-	-	-
Stage 2	849	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	536	737	-	-	1263
Mov Cap-2 Maneuver	536	-	-	-	-
Stage 1	749	-	-	-	-
Stage 2	849	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	737	1263
HCM Lane V/C Ratio	-	-	0.004	0.002
HCM Control Delay (s)	-	-	9.9	7.9
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	19.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	272	439	298	117	82	162
Future Vol, veh/h	272	439	298	117	82	162
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	286	462	314	123	86	171

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	437	0	-	0	1410 376
Stage 1	-	-	-	-	376 -
Stage 2	-	-	-	-	1034 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1134	-	-	-	154 675
Stage 1	-	-	-	-	699 -
Stage 2	-	-	-	-	346 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1134	-	-	-	115 675
Mov Cap-2 Maneuver	-	-	-	-	115 -
Stage 1	-	-	-	-	523 -
Stage 2	-	-	-	-	346 -

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	99.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1134	-	-	-	256
HCM Lane V/C Ratio	0.252	-	-	-	1.003
HCM Control Delay (s)	9.2	-	-	-	99.5
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	1	-	-	-	9.9

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	10.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	667	40	155	458	1	40	0	142	2	0	1
Future Vol, veh/h	1	667	40	155	458	1	40	0	142	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	702	42	163	482	1	42	0	149	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	483	0	0	744	0	0	1534	1534	723	1609	1555	483
Stage 1	-	-	-	-	-	-	725	725	-	809	809	-
Stage 2	-	-	-	-	-	-	809	809	-	800	746	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1090	-	-	873	-	-	96	118	430	85	114	588
Stage 1	-	-	-	-	-	-	420	433	-	377	396	-
Stage 2	-	-	-	-	-	-	377	396	-	382	424	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1090	-	-	873	-	-	82	96	430	47	92	588
Mov Cap-2 Maneuver	-	-	-	-	-	-	82	96	-	47	92	-
Stage 1	-	-	-	-	-	-	419	432	-	376	322	-
Stage 2	-	-	-	-	-	-	306	322	-	249	423	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.5			75.5			60.5		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	222	1090	-	-	873	-	-	68
HCM Lane V/C Ratio	0.863	0.001	-	-	0.187	-	-	0.046
HCM Control Delay (s)	75.5	8.3	0	-	10.1	-	-	60.5
HCM Lane LOS	F	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	6.8	0	-	-	0.7	-	-	0.1

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	330	680	35	50	0
Future Vol, veh/h	1	330	680	35	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	347	716	37	53	0

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	753	0	0	1084	735
Stage 1	-	-	-	735	-
Stage 2	-	-	-	349	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	*792	-	-	*214	*528
Stage 1	-	-	-	*498	-
Stage 2	-	-	-	*719	-
Platoon blocked, %	1	-	-	1	1
Mov Cap-1 Maneuver	*792	-	-	*214	*528
Mov Cap-2 Maneuver	-	-	-	*214	-
Stage 1	-	-	-	*497	-
Stage 2	-	-	-	*719	-

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	27.2
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	*792	-	-	-	214
HCM Lane V/C Ratio	0.001	-	-	-	0.246
HCM Control Delay (s)	9.6	0	-	-	27.2
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
2: Lake Gregory Dr. & SR-189

08/18/2017

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	132	60	149	75	62	211
Future Vol, veh/h	132	60	149	75	62	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	139	63	157	79	65	222

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	549	197	0	0	236
Stage 1	197	-	-	-	-
Stage 2	352	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	500	849	-	-	1343
Stage 1	841	-	-	-	-
Stage 2	716	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	473	849	-	-	1343
Mov Cap-2 Maneuver	473	-	-	-	-
Stage 1	795	-	-	-	-
Stage 2	716	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	1.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	549	1343
HCM Lane V/C Ratio	-	-	0.368	0.049
HCM Control Delay (s)	-	-	15.3	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.7	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	99	282	533	126	162	182	
Future Volume (veh/h)	99	282	533	126	162	182	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900	
Adj Flow Rate, veh/h	104	297	561	133	171	192	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	193	926	617	523	708	665	
Arrive On Green	0.11	0.49	0.32	0.32	0.41	0.41	
Sat Flow, veh/h	1714	1900	1900	1610	1714	1610	
Grp Volume(v), veh/h	104	297	561	133	171	192	
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1610	1714	1610	
Q Serve(g_s), s	4.6	7.6	22.6	4.9	5.2	6.4	
Cycle Q Clear(g_c), s	4.6	7.6	22.6	4.9	5.2	6.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	193	926	617	523	708	665	
V/C Ratio(X)	0.54	0.32	0.91	0.25	0.24	0.29	
Avail Cap(c_a), veh/h	279	1069	665	564	708	665	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.5	12.5	25.9	19.9	15.3	15.7	
Incr Delay (d2), s/veh	2.3	0.2	15.9	0.3	0.8	1.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	3.0	12.4	1.8	2.1	7.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	35.9	12.7	41.8	20.1	16.1	16.8	
LnGrp LOS	D	B	D	C	B	B	
Approach Vol, veh/h		401	694		363		
Approach Delay, s/veh		18.7	37.6		16.5		
Approach LOS		B	D		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				43.0	37.0	13.0	30.0
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				9.6	8.4	6.6	24.6
Green Ext Time (p_c), s				1.9	1.1	0.1	1.3
Intersection Summary							
HCM 6th Ctrl Delay			27.2				
HCM 6th LOS			C				

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Vol, veh/h	20	470	0	2	727	14	0	0	2	18	0	23
Future Vol, veh/h	20	470	0	2	727	14	0	0	2	18	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	495	0	2	765	15	0	0	2	19	0	24

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	780	0	0	495	0	0	1326	1321	495	1315	1314	773
Stage 1	-	-	-	-	-	-	537	537	-	777	777	-
Stage 2	-	-	-	-	-	-	789	784	-	538	537	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	846	-	-	1079	-	-	134	158	579	136	160	402
Stage 1	-	-	-	-	-	-	532	526	-	393	410	-
Stage 2	-	-	-	-	-	-	387	407	-	531	526	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	846	-	-	1079	-	-	123	154	579	133	156	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	154	-	133	156	-
Stage 1	-	-	-	-	-	-	519	513	-	383	409	-
Stage 2	-	-	-	-	-	-	363	406	-	516	513	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	11.2	24.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	579	846	-	-	1079	-	-	133	402
HCM Lane V/C Ratio	-	0.004	0.025	-	-	0.002	-	-	0.142	0.06
HCM Control Delay (s)	0	11.2	9.4	-	-	8.3	-	-	36.5	14.5
HCM Lane LOS	A	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	0.5	0.2

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	2	5	2	208	339	5
Future Vol, veh/h	2	5	2	208	339	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	5	2	219	357	5

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	583	360	362	0	0
Stage 1	360	-	-	-	-
Stage 2	223	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	478	689	1208	-	-
Stage 1	710	-	-	-	-
Stage 2	819	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	477	689	1208	-	-
Mov Cap-2 Maneuver	477	-	-	-	-
Stage 1	709	-	-	-	-
Stage 2	819	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1208	-	611	-	-
HCM Lane V/C Ratio	0.002	-	0.012	-	-
HCM Control Delay (s)	8	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

08/18/2017

Intersection						
Int Delay, s/veh	9.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	229	159	56	106	69	147
Future Vol, veh/h	229	159	56	106	69	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	241	167	59	112	73	155

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	416	115	0	0	171
Stage 1	115	-	-	-	-
Stage 2	301	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	597	943	-	-	1418
Stage 1	915	-	-	-	-
Stage 2	755	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	567	943	-	-	1418
Mov Cap-2 Maneuver	567	-	-	-	-
Stage 1	868	-	-	-	-
Stage 2	755	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	678	1418
HCM Lane V/C Ratio	-	-	0.602	0.051
HCM Control Delay (s)	-	-	18	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2

Intersection

Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	173	209	123	167	224	44
Future Vol, veh/h	173	209	123	167	224	44
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	182	220	129	176	236	46
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	15.4	13.5	12.4
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	42%	45%	0%
Vol Thru, %	58%	0%	84%
Vol Right, %	0%	55%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	290	382	268
LT Vol	123	173	0
Through Vol	167	0	224
RT Vol	0	209	44
Lane Flow Rate	305	402	282
Geometry Grp	1	1	1
Degree of Util (X)	0.471	0.584	0.424
Departure Headway (Hd)	5.554	5.229	5.417
Convergence, Y/N	Yes	Yes	Yes
Cap	647	688	663
Service Time	3.597	3.27	3.461
HCM Lane V/C Ratio	0.471	0.584	0.425
HCM Control Delay	13.5	15.4	12.4
HCM Lane LOS	B	C	B
HCM 95th-tile Q	2.5	3.8	2.1

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	149	152	0	114	347
Future Vol, veh/h	20	149	152	0	114	347
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	157	160	0	120	365

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	765	160	0	0	160
Stage 1	160	-	-	-	-
Stage 2	605	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	374	890	-	-	1432
Stage 1	874	-	-	-	-
Stage 2	549	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	335	890	-	-	1432
Mov Cap-2 Maneuver	335	-	-	-	-
Stage 1	782	-	-	-	-
Stage 2	549	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	744	1432
HCM Lane V/C Ratio	-	-	0.239	0.084
HCM Control Delay (s)	-	-	11.4	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.3

Intersection

Int Delay, s/veh 7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	140	351	386	13	11	357
Future Vol, veh/h	140	351	386	13	11	357
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	147	369	406	14	12	376

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	420	0	0 1076 413
Stage 1	-	-	- 413 -
Stage 2	-	-	- 663 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1150	-	- 245 643
Stage 1	-	-	- 672 -
Stage 2	-	-	- 516 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1150	-	- 214 643
Mov Cap-2 Maneuver	-	-	- 214 -
Stage 1	-	-	- 586 -
Stage 2	-	-	- 516 -

Approach

	EB	WB	SB
HCM Control Delay, s	2.4	0	20.8
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1150	-	-	-	607
HCM Lane V/C Ratio	0.128	-	-	-	0.638
HCM Control Delay (s)	8.6	-	-	-	20.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	4.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	347	394	146	168	5
Future Vol, veh/h	14	347	394	146	168	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	365	415	154	177	5

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	569	0	0	810	415
Stage 1	-	-	-	415	-
Stage 2	-	-	-	395	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1013	-	-	352	642
Stage 1	-	-	-	671	-
Stage 2	-	-	-	685	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1013	-	-	347	642
Mov Cap-2 Maneuver	-	-	-	347	-
Stage 1	-	-	-	661	-
Stage 2	-	-	-	685	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	25.7
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1013	-	-	-	352
HCM Lane V/C Ratio	0.015	-	-	-	0.517
HCM Control Delay (s)	8.6	-	-	-	25.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.8

Intersection

Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↑	↷		↶	↷
Traffic Vol, veh/h	141	176	153	43	72	216
Future Vol, veh/h	141	176	153	43	72	216
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	148	185	161	45	76	227
Number of Lanes	1	1	1	0	1	1

Approach

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.6	10.9	10.3
HCM LOS	B	B	B

Lane

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	78%	0%	0%
Vol Right, %	0%	0%	22%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	141	176	196	72	216
LT Vol	141	0	0	72	0
Through Vol	0	176	153	0	0
RT Vol	0	0	43	0	216
Lane Flow Rate	148	185	206	76	227
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.248	0.283	0.307	0.134	0.325
Departure Headway (Hd)	6.009	5.504	5.356	6.356	5.145
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	592	645	662	560	691
Service Time	3.806	3.301	3.453	4.145	2.933
HCM Lane V/C Ratio	0.25	0.287	0.311	0.136	0.329
HCM Control Delay	10.8	10.5	10.9	10.1	10.4
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1	1.2	1.3	0.5	1.4

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	18	12	160	284	2
Future Vol, veh/h	0	18	12	160	284	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	19	13	168	299	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	494	300	301	0	0
Stage 1	300	-	-	-	-
Stage 2	194	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	538	744	1272	-	-
Stage 1	756	-	-	-	-
Stage 2	844	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	532	744	1272	-	-
Mov Cap-2 Maneuver	532	-	-	-	-
Stage 1	748	-	-	-	-
Stage 2	844	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1272	-	744	-	-
HCM Lane V/C Ratio	0.01	-	0.025	-	-
HCM Control Delay (s)	7.9	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	249	179	3	2	2
Future Vol, veh/h	1	249	179	3	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	262	188	3	2	2

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	191	0	0	454	190
Stage 1	-	-	-	190	-
Stage 2	-	-	-	264	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1395	-	-	568	857
Stage 1	-	-	-	847	-
Stage 2	-	-	-	785	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1395	-	-	567	857
Mov Cap-2 Maneuver	-	-	-	567	-
Stage 1	-	-	-	846	-
Stage 2	-	-	-	785	-

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1395	-	-	-	682
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.6	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	237	1	1	195	0	0	0	2	0	0	1
Future Vol, veh/h	1	237	1	1	195	0	0	0	2	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	249	1	1	205	0	0	0	2	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	205	0	0	250	0	0	460	459	250	460	459	205
Stage 1	-	-	-	-	-	-	252	252	-	207	207	-
Stage 2	-	-	-	-	-	-	208	207	-	253	252	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1378	-	-	1327	-	-	515	502	794	515	502	841
Stage 1	-	-	-	-	-	-	757	702	-	800	734	-
Stage 2	-	-	-	-	-	-	799	734	-	756	702	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1378	-	-	1327	-	-	513	501	794	513	501	841
Mov Cap-2 Maneuver	-	-	-	-	-	-	513	501	-	513	501	-
Stage 1	-	-	-	-	-	-	756	701	-	799	733	-
Stage 2	-	-	-	-	-	-	797	733	-	753	701	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.5			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	794	1378	-	-	1327	-	-	841
HCM Lane V/C Ratio	0.003	0.001	-	-	0.001	-	-	0.001
HCM Control Delay (s)	9.5	7.6	0	-	7.7	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	60	30	201	79	1	149
Future Vol, veh/h	60	30	201	79	1	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	63	32	212	83	1	157

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	413	254	0	0	295
Stage 1	254	-	-	-	-
Stage 2	159	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	599	790	-	-	1278
Stage 1	793	-	-	-	-
Stage 2	875	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	598	790	-	-	1278
Mov Cap-2 Maneuver	598	-	-	-	-
Stage 1	792	-	-	-	-
Stage 2	875	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	651	1278
HCM Lane V/C Ratio	-	-	0.146	0.001
HCM Control Delay (s)	-	-	11.5	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0

Intersection						
Int Delay, s/veh	8.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	199	209	202	76	80	216
Future Vol, veh/h	199	209	202	76	80	216
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	209	220	213	80	84	227

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	293	0	-	0	891
Stage 1	-	-	-	-	253
Stage 2	-	-	-	-	638
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1280	-	-	-	315
Stage 1	-	-	-	-	794
Stage 2	-	-	-	-	530
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1280	-	-	-	264
Mov Cap-2 Maneuver	-	-	-	-	264
Stage 1	-	-	-	-	665
Stage 2	-	-	-	-	530

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	22.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1280	-	-	-	514
HCM Lane V/C Ratio	0.164	-	-	-	0.606
HCM Control Delay (s)	8.4	-	-	-	22.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	4

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	399	17	41	626	0	33	0	37	4	0	0
Future Vol, veh/h	0	399	17	41	626	0	33	0	37	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	420	18	43	659	0	35	0	39	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	659	0	0	438	0	0	1174	1174	429	1194	1183	659
Stage 1	-	-	-	-	-	-	429	429	-	745	745	-
Stage 2	-	-	-	-	-	-	745	745	-	449	438	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	939	-	-	1133	-	-	170	193	630	165	191	467
Stage 1	-	-	-	-	-	-	608	587	-	409	424	-
Stage 2	-	-	-	-	-	-	409	424	-	593	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	939	-	-	1133	-	-	165	186	630	150	184	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	186	-	150	184	-
Stage 1	-	-	-	-	-	-	608	587	-	409	408	-
Stage 2	-	-	-	-	-	-	393	408	-	556	582	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			23.2			29.7		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	939	-	-	1133	-	-	150
HCM Lane V/C Ratio	0.272	-	-	-	0.038	-	-	0.028
HCM Control Delay (s)	23.2	0	-	-	8.3	-	-	29.7
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.1

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	535	454	75	48	1
Future Vol, veh/h	1	535	454	75	48	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	563	478	79	51	1

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	557	0	0	1083	518
Stage 1	-	-	-	518	-
Stage 2	-	-	-	565	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1017	-	-	215	705
Stage 1	-	-	-	668	-
Stage 2	-	-	-	573	-
Platoon blocked, %	1	-	-	1	1
Mov Cap-1 Maneuver	1017	-	-	215	705
Mov Cap-2 Maneuver	-	-	-	215	-
Stage 1	-	-	-	667	-
Stage 2	-	-	-	573	-

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1017	-	-	-	218
HCM Lane V/C Ratio	0.001	-	-	-	0.237
HCM Control Delay (s)	8.5	0	-	-	26.6
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	101	95	263	86	89	344
Future Vol, veh/h	101	95	263	86	89	344
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	106	100	277	91	94	362

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	873	323	0	0	368	0
Stage 1	323	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	323	723	-	-	1202	-
Stage 1	738	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	291	723	-	-	1202	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	582	-	-	-	-	-

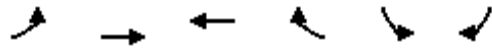
Approach	WB	NB	SB
HCM Control Delay, s	22.3	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	410	1202
HCM Lane V/C Ratio	-	-	0.503	0.078
HCM Control Delay (s)	-	-	22.3	8.2
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.7	0.3

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	118	464	394	223	299	136	
Future Volume (veh/h)	118	464	394	223	299	136	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900	
Adj Flow Rate, veh/h	124	488	415	235	315	143	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	201	814	497	421	808	759	
Arrive On Green	0.12	0.43	0.26	0.26	0.47	0.47	
Sat Flow, veh/h	1714	1900	1900	1610	1714	1610	
Grp Volume(v), veh/h	124	488	415	235	315	143	
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1610	1714	1610	
Q Serve(g_s), s	5.5	15.8	16.5	10.1	9.5	4.1	
Cycle Q Clear(g_c), s	5.5	15.8	16.5	10.1	9.5	4.1	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	201	814	497	421	808	759	
V/C Ratio(X)	0.62	0.60	0.84	0.56	0.39	0.19	
Avail Cap(c_a), veh/h	279	1069	665	564	808	759	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.6	17.6	27.9	25.5	13.7	12.3	
Incr Delay (d2), s/veh	3.1	0.7	6.9	1.2	1.4	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.4	6.6	8.1	3.9	3.7	5.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.7	18.3	34.8	26.7	15.1	12.8	
LnGrp LOS	D	B	C	C	B	B	
Approach Vol, veh/h		612	650		458		
Approach Delay, s/veh		22.0	31.9		14.4		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				38.3	41.7	13.4	24.9
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				17.8	11.5	7.5	18.5
Green Ext Time (p_c), s				3.3	1.3	0.1	2.4
Intersection Summary							
HCM 6th Ctrl Delay			23.7				
HCM 6th LOS			C				

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	874	2	7	673	49	4	0	1	42	1	54
Future Vol, veh/h	41	874	2	7	673	49	4	0	1	42	1	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	920	2	7	708	52	4	0	1	44	1	57

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	760	0	0	922	0	0	1784	1781	921	1756	1756	734
Stage 1	-	-	-	-	-	-	1007	1007	-	748	748	-
Stage 2	-	-	-	-	-	-	777	774	-	1008	1008	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	861	-	-	749	-	-	64	83	331	67	86	423
Stage 1	-	-	-	-	-	-	293	321	-	408	423	-
Stage 2	-	-	-	-	-	-	393	411	-	292	321	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	861	-	-	749	-	-	52	78	331	64	81	423
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	78	-	64	81	-
Stage 1	-	-	-	-	-	-	278	305	-	388	419	-
Stage 2	-	-	-	-	-	-	336	407	-	277	305	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			67.3			72.3		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	52	331	861	-	-	749	-	-	64	423
HCM Lane V/C Ratio	0.081	0.003	0.05	-	-	0.01	-	-	0.707	0.134
HCM Control Delay (s)	80.2	15.9	9.4	-	-	9.9	-	-	144.5	14.8
HCM Lane LOS	F	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	0	0.2	-	-	0	-	-	3.1	0.5

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	857	651	111	144	77
Future Volume (veh/h)	60	857	651	111	144	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900
Adj Flow Rate, veh/h	63	902	685	117	152	81
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	161	1259	985	835	407	382
Arrive On Green	0.09	0.66	0.52	0.52	0.24	0.24
Sat Flow, veh/h	1714	1900	1900	1610	1714	1610
Grp Volume(v), veh/h	63	902	685	117	152	81
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1610	1714	1610
Q Serve(g_s), s	2.8	24.4	21.7	3.0	5.9	3.2
Cycle Q Clear(g_c), s	2.8	24.4	21.7	3.0	5.9	3.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	161	1259	985	835	407	382
V/C Ratio(X)	0.39	0.72	0.70	0.14	0.37	0.21
Avail Cap(c_a), veh/h	214	1259	985	835	407	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	8.7	14.5	10.0	25.5	24.5
Incr Delay (d2), s/veh	1.5	3.5	4.1	0.4	2.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	9.1	9.5	1.1	2.6	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.6	12.2	18.6	10.4	28.1	25.7
LnGrp LOS	D	B	B	B	C	C
Approach Vol, veh/h		965	802		233	
Approach Delay, s/veh		13.7	17.4		27.3	
Approach LOS		B	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	11.5	45.5
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		26.4		7.9	4.8	23.7
Green Ext Time (p_c), s		8.0		0.5	0.0	4.6
Intersection Summary						
HCM 6th Ctrl Delay			16.8			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	21	22	307	291	3
Future Vol, veh/h	1	21	22	307	291	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	22	23	323	306	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	677	308	309	0	0
Stage 1	308	-	-	-	-
Stage 2	369	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	421	737	1263	-	-
Stage 1	750	-	-	-	-
Stage 2	704	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	412	737	1263	-	-
Mov Cap-2 Maneuver	412	-	-	-	-
Stage 1	734	-	-	-	-
Stage 2	704	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1263	-	711	-	-
HCM Lane V/C Ratio	0.018	-	0.033	-	-
HCM Control Delay (s)	7.9	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	12.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	247	156	90	185	79	170
Future Vol, veh/h	247	156	90	185	79	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	260	164	95	195	83	179




Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	538	193	0	0	290
Stage 1	193	-	-	-	-
Stage 2	345	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	508	854	-	-	1283
Stage 1	845	-	-	-	-
Stage 2	722	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	471	854	-	-	1283
Mov Cap-2 Maneuver	471	-	-	-	-
Stage 1	784	-	-	-	-
Stage 2	722	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.4	0	2.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	1283
HCM Lane V/C Ratio	-	-	0.744	0.065
HCM Control Delay (s)	-	-	27.4	8
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	6.4	0.2

Intersection

Intersection Delay, s/veh	49.8
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	215	219	235	356	271	51
Future Vol, veh/h	215	219	235	356	271	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	226	231	247	375	285	54
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	30.3	80.9	19.1
HCM LOS	D	F	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	50%	0%
Vol Thru, %	60%	0%	84%
Vol Right, %	0%	50%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	591	434	322
LT Vol	235	215	0
Through Vol	356	0	271
RT Vol	0	219	51
Lane Flow Rate	622	457	339
Geometry Grp	1	1	1
Degree of Util (X)	1.066	0.797	0.601
Departure Headway (Hd)	6.166	6.509	6.624
Convergence, Y/N	Yes	Yes	Yes
Cap	585	562	549
Service Time	4.258	4.509	4.624
HCM Lane V/C Ratio	1.063	0.813	0.617
HCM Control Delay	80.9	30.3	19.1
HCM Lane LOS	F	D	C
HCM 95th-tile Q	17.7	7.6	3.9

HCM 6th TWSC
 9: Daley Canyon Rd. & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	179	450	0	139	376
Future Vol, veh/h	1	179	450	0	139	376
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	188	474	0	146	396

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1162	474	0	0	474	0
Stage 1	474	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	218	595	-	-	1099	-
Stage 1	630	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	181	595	-	-	1099	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	503	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	1099
HCM Lane V/C Ratio	-	-	0.322	0.133
HCM Control Delay (s)	-	-	14	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.5

Intersection						
Int Delay, s/veh	14.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	436	564	399	14	13	364
Future Vol, veh/h	436	564	399	14	13	364
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	459	594	420	15	14	383

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	435	0	-	0	1940 428
Stage 1	-	-	-	-	428 -
Stage 2	-	-	-	-	1512 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1135	-	-	-	73 631
Stage 1	-	-	-	-	662 -
Stage 2	-	-	-	-	203 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1135	-	-	-	44 631
Mov Cap-2 Maneuver	-	-	-	-	44 -
Stage 1	-	-	-	-	395 -
Stage 2	-	-	-	-	203 -

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	56.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1135	-	-	-	432
HCM Lane V/C Ratio	0.404	-	-	-	0.919
HCM Control Delay (s)	10.3	-	-	-	56.5
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	2	-	-	-	10.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	8	570	404	217	157	8
Future Vol, veh/h	8	570	404	217	157	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	600	425	228	165	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	653	0	-	0	1041 425
Stage 1	-	-	-	-	425 -
Stage 2	-	-	-	-	616 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	943	-	-	-	257 634
Stage 1	-	-	-	-	664 -
Stage 2	-	-	-	-	543 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	943	-	-	-	255 634
Mov Cap-2 Maneuver	-	-	-	-	255 -
Stage 1	-	-	-	-	659 -
Stage 2	-	-	-	-	543 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	41.8
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	943	-	-	-	263
HCM Lane V/C Ratio	0.009	-	-	-	0.66
HCM Control Delay (s)	8.9	-	-	-	41.8
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	4.2

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	243	318	230	105	91	213
Future Vol, veh/h	243	318	230	105	91	213
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	256	335	242	111	96	224
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.5	16.6	12.5
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	243	318	335	91	213
LT Vol	243	0	0	91	0
Through Vol	0	318	230	0	0
RT Vol	0	0	105	0	213
Lane Flow Rate	256	335	353	96	224
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.463	0.559	0.575	0.197	0.384
Departure Headway (Hd)	6.515	6.007	5.867	7.388	6.166
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	553	599	614	486	583
Service Time	4.26	3.753	3.911	5.141	3.919
HCM Lane V/C Ratio	0.463	0.559	0.575	0.198	0.384
HCM Control Delay	14.8	16.1	16.6	12	12.7
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.4	3.4	3.6	0.7	1.8

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	28	19	293	275	0
Future Vol, veh/h	0	28	19	293	275	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	29	20	308	289	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	637	289	289	0	0
Stage 1	289	-	-	-	-
Stage 2	348	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	445	755	1284	-	-
Stage 1	765	-	-	-	-
Stage 2	719	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	437	755	1284	-	-
Mov Cap-2 Maneuver	437	-	-	-	-
Stage 1	750	-	-	-	-
Stage 2	719	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1284	-	755	-	-
HCM Lane V/C Ratio	0.016	-	0.039	-	-
HCM Control Delay (s)	7.8	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	20	383	313	2	2	9
Future Vol, veh/h	20	383	313	2	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	403	329	2	2	9

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	331	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1240	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1240	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1240	-	-	-	607
HCM Lane V/C Ratio	0.017	-	-	-	0.019
HCM Control Delay (s)	8	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	372	8	0	302	1	7	0	0	1	0	11
Future Vol, veh/h	9	372	8	0	302	1	7	0	0	1	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	392	8	0	318	1	7	0	0	1	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	319	0	0	400	0	0	739	733	396	733	737	319
Stage 1	-	-	-	-	-	-	414	414	-	319	319	-
Stage 2	-	-	-	-	-	-	325	319	-	414	418	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1252	-	-	1170	-	-	336	350	658	339	348	726
Stage 1	-	-	-	-	-	-	620	597	-	697	657	-
Stage 2	-	-	-	-	-	-	692	657	-	620	594	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1252	-	-	1170	-	-	328	347	658	337	345	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	328	347	-	337	345	-
Stage 1	-	-	-	-	-	-	614	592	-	691	657	-
Stage 2	-	-	-	-	-	-	681	657	-	614	589	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	16.2	10.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	328	1252	-	-	1170	-	-	662
HCM Lane V/C Ratio	0.022	0.008	-	-	-	-	-	0.019
HCM Control Delay (s)	16.2	7.9	0	-	0	-	-	10.5
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	3	302	14	2	184
Future Vol, veh/h	9	3	302	14	2	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	3	318	15	2	194

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	524	326	0	0	333
Stage 1	326	-	-	-	-
Stage 2	198	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	517	720	-	-	1238
Stage 1	736	-	-	-	-
Stage 2	840	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	516	720	-	-	1238
Mov Cap-2 Maneuver	516	-	-	-	-
Stage 1	735	-	-	-	-
Stage 2	840	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	555	1238
HCM Lane V/C Ratio	-	-	0.023	0.002
HCM Control Delay (s)	-	-	11.6	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	31.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	305	450	307	117	82	188
Future Vol, veh/h	305	450	307	117	82	188
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	321	474	323	123	86	198

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	446	0	-	0	1501 385
Stage 1	-	-	-	-	385 -
Stage 2	-	-	-	-	1116 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1125	-	-	-	136 667
Stage 1	-	-	-	-	692 -
Stage 2	-	-	-	-	316 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1125	-	-	-	97 667
Mov Cap-2 Maneuver	-	-	-	-	97 -
Stage 1	-	-	-	-	495 -
Stage 2	-	-	-	-	316 -

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	160
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1125	-	-	-	240
HCM Lane V/C Ratio	0.285	-	-	-	1.184
HCM Control Delay (s)	9.5	-	-	-	160
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	1.2	-	-	-	13.5

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection

Int Delay, s/veh 13.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	710	40	155	513	1	40	0	142	2	0	1
Future Vol, veh/h	1	710	40	155	513	1	40	0	142	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	747	42	163	540	1	42	0	149	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	541	0	0	789
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1038	-	-	840
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1038	-	-	840
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	108.3	73.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	196	1038	-	-	840	-	-	56
HCM Lane V/C Ratio	0.977	0.001	-	-	0.194	-	-	0.056
HCM Control Delay (s)	108.3	8.5	0	-	10.3	-	-	73.1
HCM Lane LOS	F	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	8.2	0	-	-	0.7	-	-	0.2

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	340	690	45	60	0
Future Vol, veh/h	1	340	690	45	60	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	358	726	47	63	0

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	773	0	-	0	1110 750
Stage 1	-	-	-	-	750 -
Stage 2	-	-	-	-	360 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	*792	-	-	-	*199 *528
Stage 1	-	-	-	-	*498 -
Stage 2	-	-	-	-	*710 -
Platoon blocked, %	1	-	-	-	1 1
Mov Cap-1 Maneuver	*792	-	-	-	*199 *528
Mov Cap-2 Maneuver	-	-	-	-	*199 -
Stage 1	-	-	-	-	*497 -
Stage 2	-	-	-	-	*710 -

Approach

EB WB SB
 HCM Control Delay, s 0 0 31.3
 HCM LOS D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 792	-	-	-	199
HCM Lane V/C Ratio	0.001	-	-	-	0.317
HCM Control Delay (s)	9.6	0	-	-	31.3
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.3

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	4.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	132	60	179	75	62	240
Future Vol, veh/h	132	60	179	75	62	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	139	63	188	79	65	253

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	611	228	0	0	267
Stage 1	228	-	-	-	-
Stage 2	383	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	460	816	-	-	1308
Stage 1	815	-	-	-	-
Stage 2	694	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	433	816	-	-	1308
Mov Cap-2 Maneuver	433	-	-	-	-
Stage 1	768	-	-	-	-
Stage 2	694	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	507	1308
HCM Lane V/C Ratio	-	-	0.399	0.05
HCM Control Delay (s)	-	-	16.7	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.9	0.2

HCM 6th Signalized Intersection Summary

3: SR-18 & Lake Gregory Dr.

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	99	302	553	156	191	182	
Future Volume (veh/h)	99	302	553	156	191	182	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900	
Adj Flow Rate, veh/h	104	318	582	164	201	192	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	193	942	633	536	693	651	
Arrive On Green	0.11	0.50	0.33	0.33	0.40	0.40	
Sat Flow, veh/h	1714	1900	1900	1610	1714	1610	
Grp Volume(v), veh/h	104	318	582	164	201	192	
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1610	1714	1610	
Q Serve(g_s), s	4.6	8.1	23.6	6.1	6.3	6.5	
Cycle Q Clear(g_c), s	4.6	8.1	23.6	6.1	6.3	6.5	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	193	942	633	536	693	651	
V/C Ratio(X)	0.54	0.34	0.92	0.31	0.29	0.29	
Avail Cap(c_a), veh/h	279	1069	665	564	693	651	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.5	12.2	25.7	19.8	16.1	16.1	
Incr Delay (d2), s/veh	2.3	0.2	17.6	0.3	1.1	1.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	3.2	13.1	2.2	2.6	7.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	35.9	12.4	43.3	20.1	17.1	17.3	
LnGrp LOS	D	B	D	C	B	B	
Approach Vol, veh/h		422	746		393		
Approach Delay, s/veh		18.2	38.2		17.2		
Approach LOS		B	D		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				43.6	36.4	13.0	30.6
Change Period (Y+Rc), s				4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s				45.0	27.0	13.0	28.0
Max Q Clear Time (g_c+I1), s				10.1	8.5	6.6	25.6
Green Ext Time (p_c), s				2.0	1.2	0.1	1.1
Intersection Summary							
HCM 6th Ctrl Delay			27.5				
HCM 6th LOS			C				

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	519	0	2	777	34	0	0	2	38	0	23
Future Vol, veh/h	20	519	0	2	777	34	0	0	2	38	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	546	0	2	818	36	0	0	2	40	0	24

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	854	0	0	546
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	794	-	-	1033
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	794	-	-	1033
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

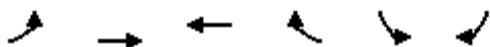
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	11.7	39.9
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	541	794	-	-	1033	-	-	111	370
HCM Lane V/C Ratio	-	0.004	0.027	-	-	0.002	-	-	0.36	0.065
HCM Control Delay (s)	0	11.7	9.7	-	-	8.5	-	-	54.7	15.4
HCM Lane LOS	A	B	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	1.5	0.2

HCM 6th Signalized Intersection Summary

5: SR-18 & Project Driveway

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	68	490	743	127	130	70
Future Volume (veh/h)	68	490	743	127	130	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900
Adj Flow Rate, veh/h	72	516	782	134	137	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	171	1259	974	826	407	382
Arrive On Green	0.10	0.66	0.51	0.51	0.24	0.24
Sat Flow, veh/h	1714	1900	1900	1610	1714	1610
Grp Volume(v), veh/h	72	516	782	134	137	74
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1610	1714	1610
Q Serve(g_s), s	3.2	10.1	27.3	3.5	5.3	2.9
Cycle Q Clear(g_c), s	3.2	10.1	27.3	3.5	5.3	2.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	171	1259	974	826	407	382
V/C Ratio(X)	0.42	0.41	0.80	0.16	0.34	0.19
Avail Cap(c_a), veh/h	214	1259	974	826	407	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	6.3	16.1	10.4	25.3	24.4
Incr Delay (d2), s/veh	1.6	1.0	7.0	0.4	2.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.6	12.4	1.3	2.3	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.5	7.2	23.1	10.8	27.5	25.5
LnGrp LOS	D	A	C	B	C	C
Approach Vol, veh/h		588	916		211	
Approach Delay, s/veh		10.7	21.3		26.8	
Approach LOS		B	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	12.0	45.0
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		53.0		19.0	10.0	39.0
Max Q Clear Time (g_c+I1), s		12.1		7.3	5.2	29.3
Green Ext Time (p_c), s		3.8		0.5	0.0	4.2
Intersection Summary						
HCM 6th Ctrl Delay			18.3			
HCM 6th LOS			B			

HCM 6th TWSC
6: Lake Forest Dr. & Grass Valley Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	2	17	14	220	351	5
Future Vol, veh/h	2	17	14	220	351	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	18	15	232	369	5

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	634	372	374	0	-	0
Stage 1	372	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	446	678	1196	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	440	678	1196	-	-	-
Mov Cap-2 Maneuver	440	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	786	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1196	-	641	-	-
HCM Lane V/C Ratio	0.012	-	0.031	-	-
HCM Control Delay (s)	8	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	11.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	252	159	62	130	69	153
Future Vol, veh/h	252	159	62	130	69	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	265	167	65	137	73	161

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	441	134	0	0	202
Stage 1	134	-	-	-	-
Stage 2	307	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	577	920	-	-	1382
Stage 1	897	-	-	-	-
Stage 2	751	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	544	920	-	-	1382
Mov Cap-2 Maneuver	544	-	-	-	-
Stage 1	845	-	-	-	-
Stage 2	751	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	646	1382
HCM Lane V/C Ratio	-	-	0.67	0.053
HCM Control Delay (s)	-	-	21.1	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	5.1	0.2

Intersection

Intersection Delay, s/veh	18
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	173	238	153	217	273	44
Future Vol, veh/h	173	238	153	217	273	44
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	182	251	161	228	287	46
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	19.6	18.5	15.4
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	41%	42%	0%
Vol Thru, %	59%	0%	86%
Vol Right, %	0%	58%	14%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	370	411	317
LT Vol	153	173	0
Through Vol	217	0	273
RT Vol	0	238	44
Lane Flow Rate	389	433	334
Geometry Grp	1	1	1
Degree of Util (X)	0.632	0.674	0.535
Departure Headway (Hd)	5.839	5.61	5.774
Convergence, Y/N	Yes	Yes	Yes
Cap	615	640	621
Service Time	3.913	3.68	3.852
HCM Lane V/C Ratio	0.633	0.677	0.538
HCM Control Delay	18.5	19.6	15.4
HCM Lane LOS	C	C	C
HCM 95th-tile Q	4.4	5.2	3.2

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	149	232	0	114	425
Future Vol, veh/h	20	149	232	0	114	425
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	157	244	0	120	447

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	931	244	0	0	244
Stage 1	244	-	-	-	-
Stage 2	687	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	299	800	-	-	1334
Stage 1	801	-	-	-	-
Stage 2	503	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	263	800	-	-	1334
Mov Cap-2 Maneuver	263	-	-	-	-
Stage 1	705	-	-	-	-
Stage 2	503	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	644	1334
HCM Lane V/C Ratio	-	-	0.276	0.09
HCM Control Delay (s)	-	-	12.7	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.1	0.3

Intersection						
Int Delay, s/veh	12.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	220	401	435	13	11	435
Future Vol, veh/h	220	401	435	13	11	435
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	232	422	458	14	12	458

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	472	0	-	0	1351 465
Stage 1	-	-	-	-	465 -
Stage 2	-	-	-	-	886 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1100	-	-	-	167 602
Stage 1	-	-	-	-	636 -
Stage 2	-	-	-	-	406 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1100	-	-	-	132 602
Mov Cap-2 Maneuver	-	-	-	-	132 -
Stage 1	-	-	-	-	502 -
Stage 2	-	-	-	-	406 -

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	37.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1100	-	-	-	553
HCM Lane V/C Ratio	0.211	-	-	-	0.849
HCM Control Delay (s)	9.1	-	-	-	37.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.8	-	-	-	9

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

08/18/2017

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	397	443	146	168	5
Future Vol, veh/h	14	397	443	146	168	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	418	466	154	177	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	620	0	-	0	914
Stage 1	-	-	-	-	466
Stage 2	-	-	-	-	448
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	970	-	-	-	306
Stage 1	-	-	-	-	636
Stage 2	-	-	-	-	648
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	970	-	-	-	301
Mov Cap-2 Maneuver	-	-	-	-	301
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	648

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	32.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	970	-	-	-	305
HCM Lane V/C Ratio	0.015	-	-	-	0.597
HCM Control Delay (s)	8.8	-	-	-	32.9
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3.6

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↑	↷		↶	↷
Traffic Vol, veh/h	161	206	182	43	72	236
Future Vol, veh/h	161	206	182	43	72	236
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	169	217	192	45	76	248
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.5	11.9	11.2
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	161	206	225	72	236
LT Vol	161	0	0	72	0
Through Vol	0	206	182	0	0
RT Vol	0	0	43	0	236
Lane Flow Rate	169	217	237	76	248
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.294	0.346	0.37	0.14	0.376
Departure Headway (Hd)	6.247	5.742	5.629	6.666	5.451
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	576	627	639	539	661
Service Time	3.972	3.466	3.655	4.397	3.182
HCM Lane V/C Ratio	0.293	0.346	0.371	0.141	0.375
HCM Control Delay	11.6	11.5	11.9	10.5	11.4
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.2	1.5	1.7	0.5	1.7

HCM 6th TWSC
 13: Bay Rd. & Little Bear Rd.

08/18/2017

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	26	20	172	296	2
Future Vol, veh/h	0	26	20	172	296	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	27	21	181	312	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	536	313	314	0	0
Stage 1	313	-	-	-	-
Stage 2	223	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	509	732	1258	-	-
Stage 1	746	-	-	-	-
Stage 2	819	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	499	732	1258	-	-
Mov Cap-2 Maneuver	499	-	-	-	-
Stage 1	732	-	-	-	-
Stage 2	819	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1258	-	732	-	-
HCM Lane V/C Ratio	0.017	-	0.037	-	-
HCM Control Delay (s)	7.9	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	269	199	3	2	8
Future Vol, veh/h	7	269	199	3	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	283	209	3	2	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	212	0	-	0	508
Stage 1	-	-	-	-	211
Stage 2	-	-	-	-	297
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1370	-	-	-	528
Stage 1	-	-	-	-	829
Stage 2	-	-	-	-	758
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1370	-	-	-	525
Mov Cap-2 Maneuver	-	-	-	-	525
Stage 1	-	-	-	-	824
Stage 2	-	-	-	-	758

Approach

	EB	WB	SB
HCM Control Delay, s	0.2	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1370	-	-	-	746
HCM Lane V/C Ratio	0.005	-	-	-	0.014
HCM Control Delay (s)	7.6	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SR-189 & Greenway Dr.

08/18/2017

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	249	7	1	207	0	6	0	2	0	0	5
Future Vol, veh/h	5	249	7	1	207	0	6	0	2	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	262	7	1	218	0	6	0	2	0	0	5

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	218	0	0	269
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1364	-	-	1306
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1364	-	-	1306
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	11.9	9.4
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	531	1364	-	-	1306	-	-	827
HCM Lane V/C Ratio	0.016	0.004	-	-	0.001	-	-	0.006
HCM Control Delay (s)	11.9	7.7	0	-	7.8	0	-	9.4
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	70	30	211	89	1	159
Future Vol, veh/h	70	30	211	89	1	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	74	32	222	94	1	167

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	438	269	0	0	316
Stage 1	269	-	-	-	-
Stage 2	169	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	580	775	-	-	1256
Stage 1	781	-	-	-	-
Stage 2	866	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	579	775	-	-	1256
Mov Cap-2 Maneuver	579	-	-	-	-
Stage 1	780	-	-	-	-
Stage 2	866	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	627	1256
HCM Lane V/C Ratio	-	-	0.168	0.001
HCM Control Delay (s)	-	-	11.9	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	10.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	229	219	212	76	80	245
Future Vol, veh/h	229	219	212	76	80	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	241	231	223	80	84	258

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	303	0	-	0	976 263
Stage 1	-	-	-	-	263 -
Stage 2	-	-	-	-	713 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1269	-	-	-	281 781
Stage 1	-	-	-	-	786 -
Stage 2	-	-	-	-	489 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1269	-	-	-	228 781
Mov Cap-2 Maneuver	-	-	-	-	228 -
Stage 1	-	-	-	-	637 -
Stage 2	-	-	-	-	489 -

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	27.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	489
HCM Lane V/C Ratio	0.19	-	-	-	0.7
HCM Control Delay (s)	8.5	-	-	-	27.8
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.7	-	-	-	5.4

HCM 6th TWSC
18: Pine Ave & SR-18

08/18/2017

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	448	17	41	676	0	33	0	37	4	0	0
Future Vol, veh/h	0	448	17	41	676	0	33	0	37	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	472	18	43	712	0	35	0	39	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	712	0	0	490	0	0	1279	1279	481	1299	1288	712
Stage 1	-	-	-	-	-	-	481	481	-	798	798	-
Stage 2	-	-	-	-	-	-	798	798	-	501	490	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	897	-	-	1084	-	-	144	167	589	140	165	436
Stage 1	-	-	-	-	-	-	570	557	-	382	401	-
Stage 2	-	-	-	-	-	-	382	401	-	556	552	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	897	-	-	1084	-	-	140	160	589	127	158	436
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	160	-	127	158	-
Stage 1	-	-	-	-	-	-	570	557	-	382	385	-
Stage 2	-	-	-	-	-	-	367	385	-	519	552	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			27.3			34.3		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	234	897	-	-	1084	-	-	127
HCM Lane V/C Ratio	0.315	-	-	-	0.04	-	-	0.033
HCM Control Delay (s)	27.3	0	-	-	8.5	-	-	34.3
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.3	0	-	-	0.1	-	-	0.1

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	736	2	5	556	44	3	0	1	38	1	46
Future Volume (veh/h)	35	736	2	5	556	44	3	0	1	38	1	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	37	775	2	5	585	46	3	0	1	40	1	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	832	2	21	670	53	169	0	569	187	4	569
Arrive On Green	0.07	0.46	0.46	0.01	0.41	0.41	0.37	0.00	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1619	1795	5	1619	1647	130	211	0	1525	262	10	1525
Grp Volume(v), veh/h	37	0	777	5	0	631	3	0	1	41	0	48
Grp Sat Flow(s),veh/h/ln	1619	0	1799	1619	0	1777	211	0	1525	271	0	1525
Q Serve(g_s), s	1.7	0.0	32.6	0.2	0.0	26.1	0.2	0.0	0.0	2.1	0.0	1.6
Cycle Q Clear(g_c), s	1.7	0.0	32.6	0.2	0.0	26.1	25.4	0.0	0.0	26.4	0.0	1.6
Prop In Lane	1.00		0.00	1.00		0.07	1.00		1.00	0.98		1.00
Lane Grp Cap(c), veh/h	113	0	835	21	0	723	169	0	569	190	0	569
V/C Ratio(X)	0.33	0.00	0.93	0.23	0.00	0.87	0.02	0.00	0.00	0.22	0.00	0.08
Avail Cap(c_a), veh/h	202	0	900	202	0	888	169	0	569	190	0	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.81	0.00	0.81	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	20.2	39.1	0.0	21.8	35.6	0.0	15.7	34.9	0.0	16.2
Incr Delay (d2), s/veh	1.7	0.0	15.3	4.5	0.0	6.8	0.2	0.0	0.0	2.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	15.9	0.1	0.0	11.4	0.1	0.0	0.0	0.9	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	35.6	43.6	0.0	28.6	35.8	0.0	15.7	37.5	0.0	16.5
LnGrp LOS	D	A	D	D	A	C	D	A	B	D	A	B
Approach Vol, veh/h		814			636			4				89
Approach Delay, s/veh		35.6			28.7			30.8				26.2
Approach LOS		D			C			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.8	5.1	41.1		33.8	9.6	36.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	10.0	40.0		18.0	10.0	40.0				
Max Q Clear Time (g_c+I1), s		27.4	2.2	34.6		28.4	3.7	28.1				
Green Ext Time (p_c), s		0.0	0.0	2.5		0.0	0.0	3.4				
Intersection Summary												
HCM 6th Ctrl Delay												32.2
HCM 6th LOS												C

Intersection	
Intersection Delay, s/veh	29.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	599	34	129	437	1	34	0	118	2	0	1
Future Vol, veh/h	1	599	34	129	437	1	34	0	118	2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	611	35	132	446	1	35	0	120	2	0	1
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	43.2	18.8	11.6	10.3
HCM LOS	E	C	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	22%	0%	100%	0%	67%
Vol Thru, %	0%	94%	0%	100%	0%
Vol Right, %	78%	5%	0%	0%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	634	129	438	3
LT Vol	34	1	129	0	2
Through Vol	0	599	0	437	0
RT Vol	118	34	0	1	1
Lane Flow Rate	155	647	132	447	3
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.27	0.937	0.227	0.708	0.006
Departure Headway (Hd)	6.274	5.214	6.211	5.702	7.214
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	571	699	578	635	494
Service Time	4.326	3.245	3.946	3.437	5.294
HCM Lane V/C Ratio	0.271	0.926	0.228	0.704	0.006
HCM Control Delay	11.6	43.2	10.8	21.1	10.3
HCM Lane LOS	B	E	B	C	B
HCM 95th-tile Q	1.1	13.1	0.9	5.8	0

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	418	0	2	627	32	0	0	2	34	0	18
Future Volume (veh/h)	16	418	0	2	627	32	0	0	2	34	0	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	20	510	0	2	765	39	0	0	2	41	0	22
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	930	0	9	811	41	0	590	500	561	0	500
Arrive On Green	0.04	0.52	0.00	0.01	0.48	0.48	0.00	0.00	0.33	0.33	0.00	0.33
Sat Flow, veh/h	1619	1800	0	1619	1698	87	0	1800	1525	1437	0	1525
Grp Volume(v), veh/h	20	510	0	2	0	804	0	0	2	41	0	22
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1784	0	1800	1525	1437	0	1525
Q Serve(g_s), s	1.0	15.3	0.0	0.1	0.0	34.3	0.0	0.0	0.1	1.6	0.0	0.8
Cycle Q Clear(g_c), s	1.0	15.3	0.0	0.1	0.0	34.3	0.0	0.0	0.1	1.6	0.0	0.8
Prop In Lane	1.00		0.00	1.00		0.05	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	930	0	9	0	852	0	590	500	561	0	500
V/C Ratio(X)	0.28	0.55	0.00	0.23	0.00	0.94	0.00	0.00	0.00	0.07	0.00	0.04
Avail Cap(c_a), veh/h	202	930	0	202	0	892	0	590	500	561	0	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.74	0.00	0.74	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	13.0	0.0	39.6	0.0	19.9	0.0	0.0	18.1	18.6	0.0	18.3
Incr Delay (d2), s/veh	2.0	0.7	0.0	9.4	0.0	14.2	0.0	0.0	0.0	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.8	0.0	0.1	0.0	16.2	0.0	0.0	0.0	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	13.7	0.0	49.0	0.0	34.1	0.0	0.0	18.1	18.9	0.0	18.5
LnGrp LOS	D	B	A	D	A	C	A	A	B	B	A	B
Approach Vol, veh/h	530			806			2			63		
Approach Delay, s/veh	14.7			34.1			18.1			18.7		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	30.2	4.4	45.4		30.2	7.6	42.2					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	18.0	10.0	40.0		18.0	10.0	40.0					
Max Q Clear Time (g_c+11), s	2.1	2.1	17.3		3.6	3.0	36.3					
Green Ext Time (p_c), s	0.0	0.0	3.4		0.2	0.0	1.9					
Intersection Summary												
HCM 6th Ctrl Delay	26.0											
HCM 6th LOS	C											

Intersection	
Intersection Delay, s/veh	34.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	376	14	34	564	0	27	0	30	3	0	0
Future Vol, veh/h	0	376	14	34	564	0	27	0	30	3	0	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	459	17	41	688	0	33	0	37	4	0	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	17.5	47.9	10.4	10.2
HCM LOS	C	E	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	47%	0%	100%	0%	100%
Vol Thru, %	0%	96%	0%	100%	0%
Vol Right, %	53%	4%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	390	34	564	3
LT Vol	27	0	34	0	3
Through Vol	0	376	0	564	0
RT Vol	30	14	0	0	0
Lane Flow Rate	70	476	41	688	4
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.124	0.663	0.065	0.975	0.007
Departure Headway (Hd)	6.445	5.017	5.607	5.103	7.129
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	560	713	634	708	505
Service Time	4.445	3.096	3.383	2.879	5.133
HCM Lane V/C Ratio	0.125	0.668	0.065	0.972	0.008
HCM Control Delay	10.4	17.5	8.8	50.3	10.2
HCM Lane LOS	B	C	A	F	B
HCM 95th-tile Q	0.4	5	0.2	14.9	0

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	741	2	5	560	44	3	0	1	38	1	46
Future Volume (veh/h)	35	741	2	5	560	44	3	0	1	38	1	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	37	780	2	5	589	46	3	0	1	40	1	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	820	2	21	659	52	175	0	579	193	4	579
Arrive On Green	0.14	0.91	0.91	0.01	0.40	0.40	0.38	0.00	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1619	1795	5	1619	1648	129	224	0	1525	274	10	1525
Grp Volume(v), veh/h	37	0	782	5	0	635	3	0	1	41	0	48
Grp Sat Flow(s),veh/h/ln	1619	0	1799	1619	0	1777	224	0	1525	284	0	1525
Q Serve(g_s), s	1.6	0.0	22.9	0.2	0.0	26.7	0.2	0.0	0.0	2.1	0.0	1.6
Cycle Q Clear(g_c), s	1.6	0.0	22.9	0.2	0.0	26.7	25.6	0.0	0.0	26.6	0.0	1.6
Prop In Lane	1.00		0.00	1.00		0.07	1.00		1.00	0.98		1.00
Lane Grp Cap(c), veh/h	113	0	822	21	0	711	175	0	579	197	0	579
V/C Ratio(X)	0.33	0.00	0.95	0.23	0.00	0.89	0.02	0.00	0.00	0.21	0.00	0.08
Avail Cap(c_a), veh/h	202	0	900	202	0	888	175	0	579	197	0	579
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.00	0.41	0.81	0.00	0.81	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	2.8	39.1	0.0	22.4	35.3	0.0	15.4	34.6	0.0	15.9
Incr Delay (d2), s/veh	0.7	0.0	9.6	4.5	0.0	8.1	0.2	0.0	0.0	2.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	3.4	0.1	0.0	11.9	0.1	0.0	0.0	0.9	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	12.5	43.6	0.0	30.5	35.5	0.0	15.4	37.0	0.0	16.2
LnGrp LOS	C	A	B	D	A	C	D	A	B	D	A	B
Approach Vol, veh/h		819			640			4				89
Approach Delay, s/veh		13.4			30.6			30.4				25.8
Approach LOS		B			C			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.4	5.1	40.6		34.4	9.6	36.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	10.0	40.0		18.0	10.0	40.0				
Max Q Clear Time (g_c+I1), s		27.6	2.2	24.9		28.6	3.6	28.7				
Green Ext Time (p_c), s		0.0	0.0	5.1		0.0	0.0	3.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

18: Pine Ave & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Volume (veh/h)	1	604	34	130	440	1	34	0	119	2	0	1
Future Volume (veh/h)	1	604	34	130	440	1	34	0	119	2	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1800	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	1	616	35	133	449	1	35	0	121	2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	45	674	38	192	1021	2	145	32	421	393	14	166
Arrive On Green	0.42	0.40	0.40	0.24	1.00	1.00	0.33	0.00	0.33	0.36	0.00	0.36
Sat Flow, veh/h	1	1686	96	1619	1795	4	253	89	1182	892	40	466
Grp Volume(v), veh/h	652	0	0	133	0	450	156	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	1782	0	0	1619	0	1799	1524	0	0	1397	0	0
Q Serve(g_s), s	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	26.8	0.0	0.0	6.0	0.0	0.0	5.9	0.0	0.0	0.1	0.0	0.0
Prop In Lane	0.00		0.05	1.00		0.00	0.22		0.78	0.67		0.33
Lane Grp Cap(c), veh/h	803	0	0	192	0	1023	560	0	0	573	0	0
V/C Ratio(X)	0.81	0.00	0.00	0.69	0.00	0.44	0.28	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	958	0	0	202	0	1192	560	0	0	573	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	0.62	0.00	0.62	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.4	0.0	0.0	29.2	0.0	0.0	19.2	0.0	0.0	16.6	0.0	0.0
Incr Delay (d2), s/veh	4.6	0.0	0.0	5.8	0.0	0.2	1.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.4	0.0	0.1	2.3	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	0.0	35.0	0.0	0.2	20.4	0.0	0.0	16.6	0.0	0.0
LnGrp LOS	C	A	A	D	A	A	C	A	A	B	A	A
Approach Vol, veh/h		652			583			156				3
Approach Delay, s/veh		27.0			8.1			20.4				16.6
Approach LOS		C			A			C				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		30.5	13.5	36.0		30.5		49.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0	10.0	39.0		19.0		53.0				
Max Q Clear Time (g_c+I1), s		7.9	8.0	28.8		2.1		2.0				
Green Ext Time (p_c), s		0.6	0.1	3.2		0.0		3.2				
Intersection Summary												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	421	0	2	632	32	0	0	2	34	0	18
Future Volume (veh/h)	16	421	0	2	632	32	0	0	2	34	0	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	20	513	0	2	771	39	0	0	2	41	0	22
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	935	0	9	815	41	0	586	496	558	0	496
Arrive On Green	0.09	1.00	0.00	0.01	0.48	0.48	0.00	0.00	0.33	0.33	0.00	0.33
Sat Flow, veh/h	1619	1800	0	1619	1699	86	0	1800	1525	1437	0	1525
Grp Volume(v), veh/h	20	513	0	2	0	810	0	0	2	41	0	22
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1785	0	1800	1525	1437	0	1525
Q Serve(g_s), s	0.9	0.0	0.0	0.1	0.0	34.6	0.0	0.0	0.1	1.6	0.0	0.8
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.1	0.0	34.6	0.0	0.0	0.1	1.6	0.0	0.8
Prop In Lane	1.00		0.00	1.00		0.05	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	935	0	9	0	856	0	586	496	558	0	496
V/C Ratio(X)	0.28	0.55	0.00	0.23	0.00	0.95	0.00	0.00	0.00	0.07	0.00	0.04
Avail Cap(c_a), veh/h	202	935	0	202	0	892	0	586	496	558	0	496
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.00	0.73	0.00	0.73	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	0.0	39.6	0.0	19.8	0.0	0.0	18.2	18.7	0.0	18.5
Incr Delay (d2), s/veh	1.4	0.5	0.0	9.2	0.0	14.4	0.0	0.0	0.0	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.0	0.1	0.0	16.3	0.0	0.0	0.0	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.5	0.0	48.9	0.0	34.3	0.0	0.0	18.2	19.0	0.0	18.6
LnGrp LOS	D	A	A	D	A	C	A	A	B	B	A	B
Approach Vol, veh/h	533			812			2			63		
Approach Delay, s/veh	1.8			34.3			18.2			18.9		
Approach LOS	A			C			B			B		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	30.0	4.4	45.5	30.0	7.6	42.4						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0						
Max Green Setting (Gmax), s	18.0	10.0	40.0	18.0	10.0	40.0						
Max Q Clear Time (g_c+I1), s	2.1	2.1	2.0	3.6	2.9	36.6						
Green Ext Time (p_c), s	0.0	0.0	3.7	0.2	0.0	1.8						
Intersection Summary												
HCM 6th Ctrl Delay	21.3											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

18: Pine Ave & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	0	380	14	34	568	0	27	0	30	3	0	0
Future Volume (veh/h)	0	380	14	34	568	0	27	0	30	3	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	0	463	17	41	693	0	33	0	37	4	0	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	537	20	121	784	0	388	23	386	779	0	0
Arrive On Green	0.00	0.31	0.31	0.15	0.87	0.00	0.46	0.00	0.46	0.49	0.00	0.00
Sat Flow, veh/h	0	1725	63	1619	1800	0	657	47	789	1408	0	0
Grp Volume(v), veh/h	0	0	480	41	693	0	70	0	0	4	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1789	1619	1800	0	1494	0	0	1408	0	0
Q Serve(g_s), s	0.0	0.0	20.2	1.8	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	20.2	1.8	17.2	0.0	1.9	0.0	0.0	0.1	0.0	0.0
Prop In Lane	0.00		0.04	1.00		0.00	0.47		0.53	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	556	121	784	0	760	0	0	779	0	0
V/C Ratio(X)	0.00	0.00	0.86	0.34	0.88	0.00	0.09	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	0	0	827	202	1148	0	760	0	0	779	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.31	0.31	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	26.0	32.2	4.0	0.0	11.5	0.0	0.0	10.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.3	0.5	2.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	9.1	0.7	2.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	32.3	32.8	6.0	0.0	11.7	0.0	0.0	10.5	0.0	0.0
LnGrp LOS	A	A	C	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		480			734			70				4
Approach Delay, s/veh		32.3			7.5			11.7				10.5
Approach LOS		C			A			B				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		41.1	10.0	28.9		41.1		38.9				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0	10.0	37.0		21.0		51.0				
Max Q Clear Time (g_c+1), s		3.9	3.8	22.2		2.1		19.2				
Green Ext Time (p_c), s		0.3	0.0	2.7		0.0		5.5				
Intersection Summary												
HCM 6th Ctrl Delay					16.9							
HCM 6th LOS					B							

HCM 2010 Signalized Intersection Summary
 8: Daley Canyon Rd. /Daley Canyon Rd. & SR-189

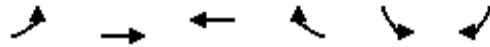
08/18/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	192	208	226	333	254	46		
Future Volume (veh/h)	192	208	226	333	254	46		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800		
Adj Flow Rate, veh/h	200	217	235	347	265	48		
Adj No. of Lanes	0	0	0	1	1	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	216	235	278	410	312	56		
Arrive On Green	0.28	0.28	0.39	0.39	0.21	0.21		
Sat Flow, veh/h	772	838	712	1052	1484	269		
Grp Volume(v), veh/h	418	0	582	0	0	313		
Grp Sat Flow(s),veh/h/ln	1614	0	1764	0	0	1753		
Q Serve(g_s), s	25.2	0.0	30.0	0.0	0.0	17.2		
Cycle Q Clear(g_c), s	25.2	0.0	30.0	0.0	0.0	17.2		
Prop In Lane	0.48	0.52	0.40			0.15		
Lane Grp Cap(c), veh/h	452	0	688	0	0	368		
V/C Ratio(X)	0.93	0.00	0.85	0.00	0.00	0.85		
Avail Cap(c_a), veh/h	452	0	688	0	0	368		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	35.0	0.0	27.8	0.0	0.0	38.0		
Incr Delay (d2), s/veh	27.2	0.0	12.2	0.0	0.0	21.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.6	0.0	16.9	0.0	0.0	10.4		
LnGrp Delay(d),s/veh	62.2	0.0	40.0	0.0	0.0	59.1		
LnGrp LOS	E		D			E		
Approach Vol, veh/h	418			582	313			
Approach Delay, s/veh	62.2			40.0	59.1			
Approach LOS	E			D	E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		32.0		25.0				43.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		21.0				39.0
Max Q Clear Time (g_c+I1), s		27.2		19.2				32.0
Green Ext Time (p_c), s		0.1		0.3				2.2
Intersection Summary								
HCM 2010 Ctrl Delay			51.6					
HCM 2010 LOS			D					
Notes								

HCM 2010 Signalized Intersection Summary
 10: SR-18 & Daley Canyon Rd.

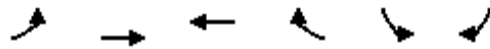
08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	391	540	339	12	12	326		
Future Volume (veh/h)	391	540	339	12	12	326		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800		
Adj Flow Rate, veh/h	412	568	357	13	13	343		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	454	1013	402	15	19	497		
Arrive On Green	0.28	0.56	0.23	0.23	0.34	0.34		
Sat Flow, veh/h	1619	1800	1726	63	56	1476		
Grp Volume(v), veh/h	412	568	0	370	357	0		
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1789	1537	0		
Q Serve(g_s), s	19.7	16.1	0.0	16.0	16.1	0.0		
Cycle Q Clear(g_c), s	19.7	16.1	0.0	16.0	16.1	0.0		
Prop In Lane	1.00			0.04	0.04	0.96		
Lane Grp Cap(c), veh/h	454	1013	0	417	518	0		
V/C Ratio(X)	0.91	0.56	0.00	0.89	0.69	0.00		
Avail Cap(c_a), veh/h	567	1193	0	470	518	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	27.8	11.2	0.0	29.7	22.9	0.0		
Incr Delay (d2), s/veh	16.2	0.5	0.0	17.1	7.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	10.7	8.0	0.0	9.9	7.8	0.0		
LnGrp Delay(d),s/veh	44.0	11.6	0.0	46.7	30.2	0.0		
LnGrp LOS	D	B		D	C			
Approach Vol, veh/h		980	370		357			
Approach Delay, s/veh		25.2	46.7		30.2			
Approach LOS		C	D		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				49.0		31.0	26.4	22.6
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				53.0		19.0	28.0	21.0
Max Q Clear Time (g_c+I1), s				18.1		18.1	21.7	18.0
Green Ext Time (p_c), s				4.2		0.1	0.8	0.6
Intersection Summary								
HCM 2010 Ctrl Delay			30.9					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
 17: SR-18 & SR-173

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	242	412	256	104	78	151		
Future Volume (veh/h)	242	412	256	104	78	151		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800		
Adj Flow Rate, veh/h	263	448	278	113	85	164		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	304	896	317	129	217	419		
Arrive On Green	0.19	0.50	0.26	0.26	0.40	0.40		
Sat Flow, veh/h	1619	1800	1218	495	540	1042		
Grp Volume(v), veh/h	263	448	0	391	250	0		
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1713	1589	0		
Q Serve(g_s), s	12.6	13.3	0.0	17.5	8.9	0.0		
Cycle Q Clear(g_c), s	12.6	13.3	0.0	17.5	8.9	0.0		
Prop In Lane	1.00			0.29	0.34	0.66		
Lane Grp Cap(c), veh/h	304	896	0	445	639	0		
V/C Ratio(X)	0.87	0.50	0.00	0.88	0.39	0.00		
Avail Cap(c_a), veh/h	445	1170	0	557	639	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	31.5	13.4	0.0	28.4	17.0	0.0		
Incr Delay (d2), s/veh	11.5	0.4	0.0	12.6	1.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.6	6.7	0.0	9.8	4.2	0.0		
LnGrp Delay(d),s/veh	43.0	13.9	0.0	41.0	18.8	0.0		
LnGrp LOS	D	B		D	B			
Approach Vol, veh/h		711	391		250			
Approach Delay, s/veh		24.6	41.0		18.8			
Approach LOS		C	D		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				43.8		36.2	19.0	24.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				52.0		20.0	22.0	26.0
Max Q Clear Time (g_c+I1), s				15.3		10.9	14.6	19.5
Green Ext Time (p_c), s				3.1		0.5	0.5	1.3
Intersection Summary								
HCM 2010 Ctrl Delay			28.3					
HCM 2010 LOS			C					
Notes								

HCM 6th Signalized Intersection Summary

18: Pine Ave & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↕	
Traffic Volume (veh/h)	1	616	34	130	450	1	34	0	119	2	0	1
Future Volume (veh/h)	1	616	34	130	450	1	34	0	119	2	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	1	629	35	133	459	1	35	0	121	2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	45	686	38	192	1032	2	143	32	414	387	14	163
Arrive On Green	0.43	0.41	0.41	0.24	1.00	1.00	0.33	0.00	0.33	0.35	0.00	0.35
Sat Flow, veh/h	1	1688	94	1619	1795	4	251	91	1182	890	40	465
Grp Volume(v), veh/h	665	0	0	133	0	460	156	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	1783	0	0	1619	0	1799	1524	0	0	1396	0	0
Q Serve(g_s), s	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	27.3	0.0	0.0	6.0	0.0	0.0	5.9	0.0	0.0	0.1	0.0	0.0
Prop In Lane	0.00		0.05	1.00		0.00	0.22		0.78	0.67		0.33
Lane Grp Cap(c), veh/h	814	0	0	192	0	1034	551	0	0	564	0	0
V/C Ratio(X)	0.82	0.00	0.00	0.69	0.00	0.44	0.28	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	959	0	0	202	0	1192	551	0	0	564	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.61	0.00	0.61	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.2	0.0	0.0	29.2	0.0	0.0	19.5	0.0	0.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.0	0.0	5.7	0.0	0.2	1.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	0.0	0.0	2.4	0.0	0.1	2.4	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	0.0	34.9	0.0	0.2	20.8	0.0	0.0	16.9	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	B	A	A
Approach Vol, veh/h		665			593			156				3
Approach Delay, s/veh		27.1			8.0			20.8				16.9
Approach LOS		C			A			C				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		30.0	13.5	36.5		30.0		50.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0	10.0	39.0		19.0		53.0				
Max Q Clear Time (g_c+I1), s		7.9	8.0	29.3		2.1		2.0				
Green Ext Time (p_c), s		0.6	0.1	3.2		0.0		3.3				
Intersection Summary												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	807	2	5	577	44	3	0	1	40	1	46
Future Volume (veh/h)	35	807	2	5	577	44	3	0	1	40	1	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	37	849	2	5	607	46	3	0	1	42	1	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	870	2	21	707	54	133	0	537	152	3	537
Arrive On Green	0.14	0.97	0.97	0.01	0.43	0.43	0.35	0.00	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1619	1795	4	1619	1652	125	124	0	1525	179	7	1525
Grp Volume(v), veh/h	37	0	851	5	0	653	3	0	1	43	0	48
Grp Sat Flow(s),veh/h/ln	1619	0	1799	1619	0	1777	124	0	1525	186	0	1525
Q Serve(g_s), s	1.6	0.0	21.3	0.2	0.0	26.6	0.2	0.0	0.0	2.3	0.0	1.7
Cycle Q Clear(g_c), s	1.6	0.0	21.3	0.2	0.0	26.6	25.8	0.0	0.0	26.9	0.0	1.7
Prop In Lane	1.00		0.00	1.00		0.07	1.00		1.00	0.98		1.00
Lane Grp Cap(c), veh/h	113	0	872	21	0	761	134	0	537	154	0	537
V/C Ratio(X)	0.33	0.00	0.98	0.23	0.00	0.86	0.02	0.00	0.00	0.28	0.00	0.09
Avail Cap(c_a), veh/h	202	0	900	202	0	889	134	0	537	154	0	537
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.00	0.40	0.79	0.00	0.79	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	0.9	39.1	0.0	20.7	37.6	0.0	16.8	37.0	0.0	17.3
Incr Delay (d2), s/veh	0.7	0.0	13.5	4.4	0.0	6.1	0.3	0.0	0.0	4.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	3.7	0.1	0.0	11.4	0.1	0.0	0.0	1.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	14.5	43.5	0.0	26.8	37.9	0.0	16.8	41.4	0.0	17.7
LnGrp LOS	C	A	B	D	A	C	D	A	B	D	A	B
Approach Vol, veh/h		888			658			4				91
Approach Delay, s/veh		15.3			26.9			32.6				28.9
Approach LOS		B			C			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.3	5.1	41.7		33.3	9.6	37.1				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	10.0	40.0		18.0	10.0	40.0				
Max Q Clear Time (g_c+I1), s		27.8	2.2	23.3		28.9	3.6	28.6				
Green Ext Time (p_c), s		0.0	0.0	6.0		0.0	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

HCM 2010 Signalized Intersection Summary
 8: Daley Canyon Rd. /Daley Canyon Rd. & SR-189

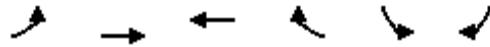
08/18/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations									
Traffic Volume (veh/h)	154	226	149	206	254	39			
Future Volume (veh/h)	154	226	149	206	254	39			
Number	5	12	3	8	4	14			
Initial Q (Qb), veh	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800			
Adj Flow Rate, veh/h	177	260	171	237	292	45			
Adj No. of Lanes	0	0	0	1	1	0			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	0	0	0	0			
Cap, veh/h	186	273	240	333	362	56			
Arrive On Green	0.29	0.29	0.32	0.32	0.24	0.24			
Sat Flow, veh/h	647	950	739	1024	1524	235			
Grp Volume(v), veh/h	438	0	408	0	0	337			
Grp Sat Flow(s),veh/h/ln	1600	0	1763	0	0	1759			
Q Serve(g_s), s	21.5	0.0	16.3	0.0	0.0	14.5			
Cycle Q Clear(g_c), s	21.5	0.0	16.3	0.0	0.0	14.5			
Prop In Lane	0.40	0.59	0.42			0.13			
Lane Grp Cap(c), veh/h	460	0	573	0	0	418			
V/C Ratio(X)	0.95	0.00	0.71	0.00	0.00	0.81			
Avail Cap(c_a), veh/h	460	0	573	0	0	418			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00			
Uniform Delay (d), s/veh	28.0	0.0	23.7	0.0	0.0	28.8			
Incr Delay (d2), s/veh	31.6	0.0	7.4	0.0	0.0	15.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	13.5	0.0	9.0	0.0	0.0	8.8			
LnGrp Delay(d),s/veh	59.5	0.0	31.1	0.0	0.0	44.1			
LnGrp LOS	E		C			D			
Approach Vol, veh/h	438			408	337				
Approach Delay, s/veh	59.5			31.1	44.1				
Approach LOS	E			C	D				
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2		4				8	
Phs Duration (G+Y+Rc), s		27.0		23.0				30.0	
Change Period (Y+Rc), s		4.0		4.0				4.0	
Max Green Setting (Gmax), s		23.0		19.0				26.0	
Max Q Clear Time (g_c+I1), s		23.5		16.5				18.3	
Green Ext Time (p_c), s		0.0		0.5				1.5	
Intersection Summary									
HCM 2010 Ctrl Delay			45.3						
HCM 2010 LOS			D						
Notes									

HCM 2010 Signalized Intersection Summary
 10: SR-18 & Daley Canyon Rd.

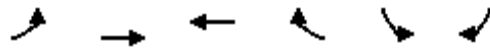
08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	207	379	359	11	10	383		
Future Volume (veh/h)	207	379	359	11	10	383		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800		
Adj Flow Rate, veh/h	252	462	438	13	12	467		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	290	919	490	15	15	582		
Arrive On Green	0.18	0.51	0.28	0.28	0.39	0.39		
Sat Flow, veh/h	1619	1800	1739	52	38	1493		
Grp Volume(v), veh/h	252	462	0	451	480	0		
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1791	1535	0		
Q Serve(g_s), s	12.1	13.5	0.0	19.3	22.2	0.0		
Cycle Q Clear(g_c), s	12.1	13.5	0.0	19.3	22.2	0.0		
Prop In Lane	1.00			0.03	0.02	0.97		
Lane Grp Cap(c), veh/h	290	919	0	504	598	0		
V/C Ratio(X)	0.87	0.50	0.00	0.89	0.80	0.00		
Avail Cap(c_a), veh/h	364	1080	0	582	598	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	31.9	12.9	0.0	27.6	21.7	0.0		
Incr Delay (d2), s/veh	16.6	0.4	0.0	14.9	10.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.7	6.8	0.0	11.6	11.1	0.0		
LnGrp Delay(d),s/veh	48.6	13.3	0.0	42.5	32.6	0.0		
LnGrp LOS	D	B		D	C			
Approach Vol, veh/h		714	451		480			
Approach Delay, s/veh		25.8	42.5		32.6			
Approach LOS		C	D		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				44.8		35.2	18.3	26.5
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				48.0		24.0	18.0	26.0
Max Q Clear Time (g_c+I1), s				15.5		24.2	14.1	21.3
Green Ext Time (p_c), s				3.2		0.0	0.3	1.2
Intersection Summary								
HCM 2010 Ctrl Delay			32.4					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
 17: SR-18 & SR-173

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	182	209	177	70	76	193		
Future Volume (veh/h)	182	209	177	70	76	193		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800		
Adj Flow Rate, veh/h	198	227	192	76	83	210		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	237	692	231	91	230	582		
Arrive On Green	0.15	0.38	0.19	0.19	0.52	0.52		
Sat Flow, veh/h	1619	1800	1228	486	446	1128		
Grp Volume(v), veh/h	198	227	0	268	294	0		
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1714	1579	0		
Q Serve(g_s), s	9.5	7.1	0.0	12.0	8.9	0.0		
Cycle Q Clear(g_c), s	9.5	7.1	0.0	12.0	8.9	0.0		
Prop In Lane	1.00			0.28	0.28	0.71		
Lane Grp Cap(c), veh/h	237	692	0	322	814	0		
V/C Ratio(X)	0.84	0.33	0.00	0.83	0.36	0.00		
Avail Cap(c_a), veh/h	405	1058	0	493	814	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	33.2	17.4	0.0	31.3	11.5	0.0		
Incr Delay (d2), s/veh	7.6	0.3	0.0	7.2	1.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.7	3.6	0.0	6.3	4.1	0.0		
LnGrp Delay(d),s/veh	40.8	17.6	0.0	38.4	12.8	0.0		
LnGrp LOS	D	B		D	B			
Approach Vol, veh/h		425	268		294			
Approach Delay, s/veh		28.4	38.4		12.8			
Approach LOS		C	D		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				34.7		45.3	15.7	19.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				47.0		25.0	20.0	23.0
Max Q Clear Time (g_c+I1), s				9.1		10.9	11.5	14.0
Green Ext Time (p_c), s				1.4		0.8	0.3	1.0
Intersection Summary								
HCM 2010 Ctrl Delay			26.5					
HCM 2010 LOS			C					
Notes								

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	487	0	2	649	32	0	0	2	36	0	18
Future Volume (veh/h)	16	487	0	2	649	32	0	0	2	36	0	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	20	594	0	2	791	39	0	0	2	44	0	22
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	948	0	9	829	41	0	572	485	547	0	485
Arrive On Green	0.09	1.00	0.00	0.01	0.49	0.49	0.00	0.00	0.32	0.32	0.00	0.32
Sat Flow, veh/h	1619	1800	0	1619	1701	84	0	1800	1525	1437	0	1525
Grp Volume(v), veh/h	20	594	0	2	0	830	0	0	2	44	0	22
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1785	0	1800	1525	1437	0	1525
Q Serve(g_s), s	0.9	0.0	0.0	0.1	0.0	35.7	0.0	0.0	0.1	1.7	0.0	0.8
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.1	0.0	35.7	0.0	0.0	0.1	1.7	0.0	0.8
Prop In Lane	1.00		0.00	1.00		0.05	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	948	0	9	0	870	0	572	485	547	0	485
V/C Ratio(X)	0.28	0.63	0.00	0.23	0.00	0.95	0.00	0.00	0.00	0.08	0.00	0.05
Avail Cap(c_a), veh/h	202	948	0	202	0	892	0	572	485	547	0	485
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.00	0.71	0.00	0.71	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	0.0	39.6	0.0	19.7	0.0	0.0	18.6	19.2	0.0	18.9
Incr Delay (d2), s/veh	1.4	0.9	0.0	9.0	0.0	15.6	0.0	0.0	0.0	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.0	0.1	0.0	17.0	0.0	0.0	0.0	0.6	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.9	0.0	48.6	0.0	35.3	0.0	0.0	18.6	19.5	0.0	19.1
LnGrp LOS	D	A	A	D	A	D	A	A	B	B	A	B
Approach Vol, veh/h		614			832			2				66
Approach Delay, s/veh		2.1			35.3			18.6				19.3
Approach LOS		A			D			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.4	4.4	46.1		29.4	7.6	43.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	10.0	40.0		18.0	10.0	40.0				
Max Q Clear Time (g_c+I1), s		2.1	2.1	2.0		3.7	2.9	37.7				
Green Ext Time (p_c), s		0.0	0.0	4.6		0.2	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

18: Pine Ave & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↕	
Traffic Volume (veh/h)	0	392	14	34	578	0	27	0	30	3	0	0
Future Volume (veh/h)	0	392	14	34	578	0	27	0	30	3	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	0	478	17	41	705	0	33	0	37	4	0	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	552	20	121	799	0	382	23	380	768	0	0
Arrive On Green	0.00	0.32	0.32	0.15	0.89	0.00	0.46	0.00	0.46	0.48	0.00	0.00
Sat Flow, veh/h	0	1728	61	1619	1800	0	657	48	790	1409	0	0
Grp Volume(v), veh/h	0	0	495	41	705	0	70	0	0	4	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1789	1619	1800	0	1494	0	0	1409	0	0
Q Serve(g_s), s	0.0	0.0	20.8	1.8	16.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	20.8	1.8	16.2	0.0	1.9	0.0	0.0	0.1	0.0	0.0
Prop In Lane	0.00		0.03	1.00		0.00	0.47		0.53	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	571	121	799	0	747	0	0	768	0	0
V/C Ratio(X)	0.00	0.00	0.87	0.34	0.88	0.00	0.09	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	0	0	827	202	1148	0	747	0	0	768	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.29	0.29	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	25.6	32.2	3.4	0.0	11.8	0.0	0.0	10.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.8	0.5	1.9	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	9.5	0.7	1.9	0.0	0.8	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	32.4	32.7	5.3	0.0	12.1	0.0	0.0	10.8	0.0	0.0
LnGrp LOS	A	A	C	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		495			746			70				4
Approach Delay, s/veh		32.4			6.8			12.1				10.8
Approach LOS		C			A			B				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		40.5	10.0	29.5		40.5		39.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0	10.0	37.0		21.0		51.0				
Max Q Clear Time (g_c+I1), s		3.9	3.8	22.8		2.1		18.2				
Green Ext Time (p_c), s		0.3	0.0	2.7		0.0		5.7				
Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									

HCM 2010 Signalized Intersection Summary
 8: Daley Canyon Rd. /Daley Canyon Rd. & SR-189

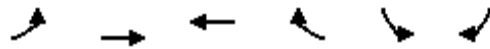
08/18/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	215	219	235	356	271	51		
Future Volume (veh/h)	215	219	235	356	271	51		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	226	231	247	375	285	54		
Adj No. of Lanes	0	0	0	1	1	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	261	267	274	416	311	59		
Arrive On Green	0.31	0.31	0.37	0.37	0.20	0.20		
Sat Flow, veh/h	842	860	740	1123	1554	294		
Grp Volume(v), veh/h	458	0	622	0	0	339		
Grp Sat Flow(s),veh/h/ln	1706	0	1863	0	0	1848		
Q Serve(g_s), s	25.3	0.0	31.6	0.0	0.0	18.0		
Cycle Q Clear(g_c), s	25.3	0.0	31.6	0.0	0.0	18.0		
Prop In Lane	0.49	0.50	0.40			0.16		
Lane Grp Cap(c), veh/h	529	0	689	0	0	370		
V/C Ratio(X)	0.87	0.00	0.90	0.00	0.00	0.92		
Avail Cap(c_a), veh/h	529	0	689	0	0	370		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	32.5	0.0	29.8	0.0	0.0	39.2		
Incr Delay (d2), s/veh	17.1	0.0	17.3	0.0	0.0	29.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.3	0.0	19.6	0.0	0.0	12.2		
LnGrp Delay(d),s/veh	49.7	0.0	47.1	0.0	0.0	69.1		
LnGrp LOS	D		D			E		
Approach Vol, veh/h	458			622	339			
Approach Delay, s/veh	49.7			47.1	69.1			
Approach LOS	D			D	E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		35.0		24.0				41.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		31.0		20.0				37.0
Max Q Clear Time (g_c+I1), s		27.3		20.0				33.6
Green Ext Time (p_c), s		0.6		0.0				1.3
Intersection Summary								
HCM 2010 Ctrl Delay			53.2					
HCM 2010 LOS			D					
Notes								

HCM 2010 Signalized Intersection Summary
 10: SR-18 & Daley Canyon Rd.

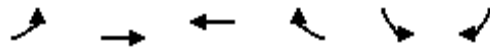
08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	436	564	399	14	13	364		
Future Volume (veh/h)	436	564	399	14	13	364		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	459	594	420	15	14	383		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	501	1135	465	17	17	472		
Arrive On Green	0.29	0.60	0.26	0.26	0.30	0.30		
Sat Flow, veh/h	1714	1900	1823	65	57	1561		
Grp Volume(v), veh/h	459	594	0	435	398	0		
Grp Sat Flow(s),veh/h/ln	1714	1900	0	1889	1622	0		
Q Serve(g_s), s	20.7	14.7	0.0	17.8	18.1	0.0		
Cycle Q Clear(g_c), s	20.7	14.7	0.0	17.8	18.1	0.0		
Prop In Lane	1.00			0.03	0.04	0.96		
Lane Grp Cap(c), veh/h	501	1135	0	482	491	0		
V/C Ratio(X)	0.92	0.52	0.00	0.90	0.81	0.00		
Avail Cap(c_a), veh/h	579	1259	0	519	491	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.80	1.00	0.00		
Uniform Delay (d), s/veh	27.4	9.4	0.0	28.8	25.8	0.0		
Incr Delay (d2), s/veh	18.0	0.4	0.0	15.4	13.6	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	12.3	7.7	0.0	11.4	9.9	0.0		
LnGrp Delay(d),s/veh	45.4	9.8	0.0	44.2	39.3	0.0		
LnGrp LOS	D	A		D	D			
Approach Vol, veh/h		1053	435		398			
Approach Delay, s/veh		25.3	44.2		39.3			
Approach LOS		C	D		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				51.8		28.2	27.4	24.4
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				53.0		19.0	27.0	22.0
Max Q Clear Time (g_c+I1), s				16.7		20.1	22.7	19.8
Green Ext Time (p_c), s				4.5		0.0	0.7	0.6
Intersection Summary								
HCM 2010 Ctrl Delay			32.6					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
 11: SR-18 & Daley Canyon Access Rd.

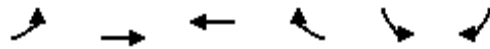
08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	8	570	404	217	157	8		
Future Volume (veh/h)	8	570	404	217	157	8		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	8	600	425	228	165	8		
Adj No. of Lanes	1	1	1	1	0	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	35	715	581	494	894	43		
Arrive On Green	0.01	0.25	0.31	0.31	0.52	0.52		
Sat Flow, veh/h	1714	1900	1900	1615	1707	83		
Grp Volume(v), veh/h	8	600	425	228	174	0		
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1615	1800	0		
Q Serve(g_s), s	0.4	24.0	16.0	9.1	4.1	0.0		
Cycle Q Clear(g_c), s	0.4	24.0	16.0	9.1	4.1	0.0		
Prop In Lane	1.00			1.00	0.95	0.05		
Lane Grp Cap(c), veh/h	35	715	581	494	943	0		
V/C Ratio(X)	0.23	0.84	0.73	0.46	0.18	0.00		
Avail Cap(c_a), veh/h	214	1140	808	686	943	0		
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.84	0.84	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	38.8	27.6	24.8	22.4	10.0	0.0		
Incr Delay (d2), s/veh	2.8	2.8	2.1	0.7	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	13.1	8.7	4.1	2.1	0.0		
LnGrp Delay(d),s/veh	41.6	30.4	27.0	23.1	10.5	0.0		
LnGrp LOS	D	C	C	C	B			
Approach Vol, veh/h		608	653		174			
Approach Delay, s/veh		30.5	25.6		10.5			
Approach LOS		C	C		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				34.1		45.9	5.6	28.5
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				48.0		24.0	10.0	34.0
Max Q Clear Time (g_c+I1), s				26.0		6.1	2.4	18.0
Green Ext Time (p_c), s				4.1		0.4	0.0	3.1
Intersection Summary								
HCM 2010 Ctrl Delay			25.9					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
 17: SR-18 & SR-173

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	305	450	307	117	82	188		
Future Volume (veh/h)	305	450	307	117	82	188		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	321	474	323	123	86	198		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	364	1025	363	138	182	418		
Arrive On Green	0.21	0.54	0.28	0.28	0.36	0.36		
Sat Flow, veh/h	1714	1900	1312	500	504	1160		
Grp Volume(v), veh/h	321	474	0	446	285	0		
Grp Sat Flow(s),veh/h/ln	1714	1900	0	1812	1670	0		
Q Serve(g_s), s	14.5	12.2	0.0	18.9	10.5	0.0		
Cycle Q Clear(g_c), s	14.5	12.2	0.0	18.9	10.5	0.0		
Prop In Lane	1.00			0.28	0.30	0.69		
Lane Grp Cap(c), veh/h	364	1025	0	502	602	0		
V/C Ratio(X)	0.88	0.46	0.00	0.89	0.47	0.00		
Avail Cap(c_a), veh/h	471	1235	0	589	602	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	30.5	11.3	0.0	27.7	19.7	0.0		
Incr Delay (d2), s/veh	14.5	0.3	0.0	13.9	2.7	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.3	6.4	0.0	11.4	5.3	0.0		
LnGrp Delay(d),s/veh	45.0	11.6	0.0	41.6	22.4	0.0		
LnGrp LOS	D	B		D	C			
Approach Vol, veh/h		795	446		285			
Approach Delay, s/veh		25.1	41.6		22.4			
Approach LOS		C	D		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				47.2		32.8	21.0	26.2
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				52.0		20.0	22.0	26.0
Max Q Clear Time (g_c+I1), s				14.2		12.5	16.5	20.9
Green Ext Time (p_c), s				3.4		0.6	0.5	1.3
Intersection Summary								
HCM 2010 Ctrl Delay			29.4					
HCM 2010 LOS			C					
Notes								

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	874	2	7	673	49	4	0	1	42	1	54
Future Volume (veh/h)	41	874	2	7	673	49	4	0	1	42	1	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	920	2	7	708	52	4	0	1	44	1	57
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	953	2	31	776	57	94	0	530	105	1	530
Arrive On Green	0.15	1.00	1.00	0.02	0.44	0.44	0.33	0.00	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1714	1895	4	1714	1748	128	14	0	1610	48	4	1610
Grp Volume(v), veh/h	43	0	922	7	0	760	4	0	1	45	0	57
Grp Sat Flow(s),veh/h/ln	1714	0	1899	1714	0	1877	14	0	1610	52	0	1610
Q Serve(g_s), s	1.8	0.0	0.0	0.3	0.0	30.3	0.2	0.0	0.0	0.9	0.0	2.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.3	0.0	30.3	26.3	0.0	0.0	26.3	0.0	2.0
Prop In Lane	1.00		0.00	1.00		0.07	1.00		1.00	0.98		1.00
Lane Grp Cap(c), veh/h	132	0	955	31	0	833	94	0	530	106	0	530
V/C Ratio(X)	0.33	0.00	0.97	0.23	0.00	0.91	0.04	0.00	0.00	0.42	0.00	0.11
Avail Cap(c_a), veh/h	214	0	955	214	0	938	94	0	530	106	0	530
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.31	0.00	0.31	0.77	0.00	0.77	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.0	0.0	0.0	38.7	0.0	20.8	39.8	0.0	18.0	39.2	0.0	18.7
Incr Delay (d2), s/veh	0.4	0.0	9.6	2.8	0.0	9.7	0.8	0.0	0.0	11.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.5	0.2	0.0	14.4	0.1	0.0	0.0	1.2	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	0.0	9.6	41.6	0.0	30.5	40.7	0.0	18.0	51.1	0.0	19.1
LnGrp LOS	C	A	A	D	A	C	D	A	B	D	A	B
Approach Vol, veh/h		965			767			5				102
Approach Delay, s/veh		10.6			30.6			36.2				33.2
Approach LOS		B			C			D				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.3	5.4	44.2		30.3	10.2	39.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	10.0	40.0		18.0	10.0	40.0				
Max Q Clear Time (g_c+I1), s		28.3	2.3	2.0		28.3	3.8	32.3				
Green Ext Time (p_c), s		0.0	0.0	9.2		0.0	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

18: Pine Ave & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Volume (veh/h)	1	710	40	155	513	1	40	0	142	2	0	1
Future Volume (veh/h)	1	710	40	155	513	1	40	0	142	2	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	747	42	163	540	1	42	0	149	2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	45	795	45	209	1172	2	130	33	383	340	15	140
Arrive On Green	0.47	0.45	0.45	0.24	1.00	1.00	0.28	0.00	0.28	0.31	0.00	0.31
Sat Flow, veh/h	0	1781	100	1714	1896	4	243	108	1246	863	49	456
Grp Volume(v), veh/h	790	0	0	163	0	541	191	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	1882	0	0	1714	0	1899	1598	0	0	1368	0	0
Q Serve(g_s), s	0.0	0.0	0.0	7.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	30.9	0.0	0.0	7.1	0.0	0.0	7.5	0.0	0.0	0.1	0.0	0.0
Prop In Lane	0.00		0.05	1.00		0.00	0.22		0.78	0.67		0.33
Lane Grp Cap(c), veh/h	932	0	0	209	0	1174	506	0	0	495	0	0
V/C Ratio(X)	0.85	0.00	0.00	0.78	0.00	0.46	0.38	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	1009	0	0	214	0	1258	506	0	0	495	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.57	0.00	0.57	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	0.0	0.0	29.3	0.0	0.0	22.6	0.0	0.0	19.2	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	0.0	10.0	0.0	0.2	2.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	0.0	0.0	3.1	0.0	0.1	3.2	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	0.0	0.0	39.3	0.0	0.2	24.7	0.0	0.0	19.3	0.0	0.0
LnGrp LOS	C	A	A	D	A	A	C	A	A	B	A	A
Approach Vol, veh/h		790			704			191				3
Approach Delay, s/veh		27.3			9.2			24.7				19.3
Approach LOS		C			A			C				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		26.6	13.7	39.7		26.6		53.4				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0	10.0	39.0		19.0		53.0				
Max Q Clear Time (g_c+I1), s		9.5	9.1	32.9		2.1		2.0				
Green Ext Time (p_c), s		0.7	0.0	2.8		0.0		4.1				
Intersection Summary												
HCM 6th Ctrl Delay				19.4								
HCM 6th LOS				B								

HCM 2010 Signalized Intersection Summary
 8: Daley Canyon Rd. /Daley Canyon Rd. & SR-189

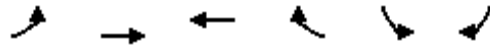
08/18/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	173	238	153	217	273	44		
Future Volume (veh/h)	173	238	153	217	273	44		
Number	7	14	5	2	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	182	251	161	228	287	46		
Adj No. of Lanes	0	0	0	1	1	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	199	274	266	377	360	58		
Arrive On Green	0.28	0.28	0.35	0.35	0.22	0.22		
Sat Flow, veh/h	709	978	770	1091	1599	256		
Grp Volume(v), veh/h	434	0	389	0	0	333		
Grp Sat Flow(s),veh/h/ln	1692	0	1861	0	0	1855		
Q Serve(g_s), s	19.9	0.0	13.8	0.0	0.0	13.6		
Cycle Q Clear(g_c), s	19.9	0.0	13.8	0.0	0.0	13.6		
Prop In Lane	0.42	0.58	0.41			0.14		
Lane Grp Cap(c), veh/h	473	0	643	0	0	417		
V/C Ratio(X)	0.92	0.00	0.61	0.00	0.00	0.80		
Avail Cap(c_a), veh/h	529	0	643	0	0	417		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	27.9	0.0	21.7	0.0	0.0	29.3		
Incr Delay (d2), s/veh	19.7	0.0	4.2	0.0	0.0	14.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	11.9	0.0	7.8	0.0	0.0	8.6		
LnGrp Delay(d),s/veh	47.6	0.0	25.9	0.0	0.0	43.9		
LnGrp LOS	D		C			D		
Approach Vol, veh/h	434			389	333			
Approach Delay, s/veh	47.6			25.9	43.9			
Approach LOS	D			C	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		31.6		26.4		22.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		25.0		25.0		18.0		
Max Q Clear Time (g_c+I1), s		15.8		21.9		15.6		
Green Ext Time (p_c), s		1.6		0.5		0.5		
Intersection Summary								
HCM 2010 Ctrl Delay			39.2					
HCM 2010 LOS			D					
Notes								

HCM 2010 Signalized Intersection Summary
 10: SR-18 & Daley Canyon Rd.

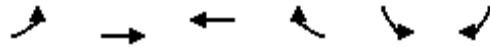
08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	220	401	435	13	11	435		
Future Volume (veh/h)	220	401	435	13	11	435		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	232	422	458	14	12	458		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	273	934	518	16	17	644		
Arrive On Green	0.16	0.49	0.28	0.28	0.41	0.41		
Sat Flow, veh/h	1714	1900	1834	56	41	1575		
Grp Volume(v), veh/h	232	422	0	472	471	0		
Grp Sat Flow(s),veh/h/ln	1714	1900	0	1890	1620	0		
Q Serve(g_s), s	10.5	11.6	0.0	19.1	19.4	0.0		
Cycle Q Clear(g_c), s	10.5	11.6	0.0	19.1	19.4	0.0		
Prop In Lane	1.00			0.03	0.03	0.97		
Lane Grp Cap(c), veh/h	273	934	0	534	662	0		
V/C Ratio(X)	0.85	0.45	0.00	0.88	0.71	0.00		
Avail Cap(c_a), veh/h	364	1140	0	638	662	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.58	1.00	0.00		
Uniform Delay (d), s/veh	32.7	13.3	0.0	27.5	19.7	0.0		
Incr Delay (d2), s/veh	13.5	0.3	0.0	7.8	6.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.0	6.2	0.0	11.1	9.8	0.0		
LnGrp Delay(d),s/veh	46.2	13.6	0.0	35.2	26.1	0.0		
LnGrp LOS	D	B		D	C			
Approach Vol, veh/h		654	472		471			
Approach Delay, s/veh		25.2	35.2		26.1			
Approach LOS		C	D		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				43.3		36.7	16.7	26.6
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				48.0		24.0	17.0	27.0
Max Q Clear Time (g_c+I1), s				13.6		21.4	12.5	21.1
Green Ext Time (p_c), s				2.9		0.5	0.3	1.5
Intersection Summary								
HCM 2010 Ctrl Delay			28.4					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
 11: SR-18 & Daley Canyon Access Rd.

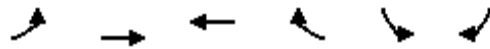
08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	14	397	443	146	168	5		
Future Volume (veh/h)	14	397	443	146	168	5		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	15	418	466	154	177	5		
Adj No. of Lanes	1	1	1	1	0	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	61	720	558	474	909	26		
Arrive On Green	0.01	0.13	0.29	0.29	0.52	0.52		
Sat Flow, veh/h	1714	1900	1900	1615	1745	49		
Grp Volume(v), veh/h	15	418	466	154	183	0		
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1615	1804	0		
Q Serve(g_s), s	0.7	16.6	18.4	6.0	4.3	0.0		
Cycle Q Clear(g_c), s	0.7	16.6	18.4	6.0	4.3	0.0		
Prop In Lane	1.00			1.00	0.97	0.03		
Lane Grp Cap(c), veh/h	61	720	558	474	940	0		
V/C Ratio(X)	0.25	0.58	0.84	0.32	0.19	0.00		
Avail Cap(c_a), veh/h	214	1188	855	727	940	0		
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.88	0.88	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	38.5	29.0	26.4	22.1	10.2	0.0		
Incr Delay (d2), s/veh	1.8	0.7	4.4	0.4	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.4	8.9	10.3	2.7	2.3	0.0		
LnGrp Delay(d),s/veh	40.3	29.6	30.9	22.5	10.7	0.0		
LnGrp LOS	D	C	C	C	B			
Approach Vol, veh/h		433	620		183			
Approach Delay, s/veh		30.0	28.8		10.7			
Approach LOS		C	C		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				34.3		45.7	6.8	27.5
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				50.0		22.0	10.0	36.0
Max Q Clear Time (g_c+I1), s				18.6		6.3	2.7	20.4
Green Ext Time (p_c), s				2.8		0.4	0.0	3.1
Intersection Summary								
HCM 2010 Ctrl Delay			26.5					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
 17: SR-18 & SR-173

08/18/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	229	219	212	76	80	245		
Future Volume (veh/h)	229	219	212	76	80	245		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	241	231	223	80	84	258		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	284	788	266	95	197	606		
Arrive On Green	0.17	0.41	0.20	0.20	0.49	0.49		
Sat Flow, veh/h	1714	1900	1336	479	406	1248		
Grp Volume(v), veh/h	241	231	0	303	343	0		
Grp Sat Flow(s),veh/h/ln	1714	1900	0	1815	1659	0		
Q Serve(g_s), s	10.9	6.5	0.0	12.8	10.7	0.0		
Cycle Q Clear(g_c), s	10.9	6.5	0.0	12.8	10.7	0.0		
Prop In Lane	1.00			0.26	0.24	0.75		
Lane Grp Cap(c), veh/h	284	788	0	362	805	0		
V/C Ratio(X)	0.85	0.29	0.00	0.84	0.43	0.00		
Avail Cap(c_a), veh/h	429	1116	0	522	805	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	32.4	15.6	0.0	30.8	13.4	0.0		
Incr Delay (d2), s/veh	9.8	0.2	0.0	8.0	1.6	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.9	3.4	0.0	7.2	5.2	0.0		
LnGrp Delay(d),s/veh	42.2	15.8	0.0	38.8	15.0	0.0		
LnGrp LOS	D	B		D	B			
Approach Vol, veh/h		472	303		343			
Approach Delay, s/veh		29.3	38.8		15.0			
Approach LOS		C	D		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				37.2		42.8	17.2	19.9
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				47.0		25.0	20.0	23.0
Max Q Clear Time (g_c+I1), s				8.5		12.7	12.9	14.8
Green Ext Time (p_c), s				1.4		0.9	0.4	1.1
Intersection Summary								
HCM 2010 Ctrl Delay			27.5					
HCM 2010 LOS			C					
Notes								

HCM 6th Signalized Intersection Summary
 4: Bear Springs Rd./Bear Springs Rd. & SR-18

08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	519	0	2	777	34	0	0	2	38	0	23
Future Volume (veh/h)	20	519	0	2	777	34	0	0	2	38	0	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	546	0	2	818	36	0	0	2	40	0	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	990	0	9	867	38	0	614	521	555	0	521
Arrive On Green	0.09	1.00	0.00	0.01	0.48	0.48	0.00	0.00	0.32	0.32	0.00	0.32
Sat Flow, veh/h	1714	1900	0	1714	1806	79	0	1900	1610	1437	0	1610
Grp Volume(v), veh/h	21	546	0	2	0	854	0	0	2	40	0	24
Grp Sat Flow(s),veh/h/ln	1714	1900	0	1714	0	1886	0	1900	1610	1437	0	1610
Q Serve(g_s), s	0.9	0.0	0.0	0.1	0.0	34.4	0.0	0.0	0.1	1.5	0.0	0.8
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.1	0.0	34.4	0.0	0.0	0.1	1.5	0.0	0.8
Prop In Lane	1.00		0.00	1.00		0.04	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	990	0	9	0	905	0	614	521	555	0	521
V/C Ratio(X)	0.26	0.55	0.00	0.21	0.00	0.94	0.00	0.00	0.00	0.07	0.00	0.05
Avail Cap(c_a), veh/h	214	990	0	214	0	943	0	614	521	555	0	521
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.00	0.60	0.00	0.60	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	0.0	39.6	0.0	19.8	0.0	0.0	18.3	18.8	0.0	18.6
Incr Delay (d2), s/veh	1.2	0.5	0.0	6.7	0.0	11.6	0.0	0.0	0.0	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.0	0.1	0.0	16.4	0.0	0.0	0.0	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	0.5	0.0	46.3	0.0	31.4	0.0	0.0	18.4	19.1	0.0	18.8
LnGrp LOS	D	A	A	D	A	C	A	A	B	B	A	B
Approach Vol, veh/h		567			856			2				64
Approach Delay, s/veh		1.8			31.4			18.4				19.0
Approach LOS		A			C			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.9	4.4	45.7		29.9	7.7	42.4				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	10.0	40.0		18.0	10.0	40.0				
Max Q Clear Time (g_c+I1), s		2.1	2.1	2.0		3.5	2.9	36.4				
Green Ext Time (p_c), s		0.0	0.0	4.1		0.2	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				19.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

18: Pine Ave & SR-18

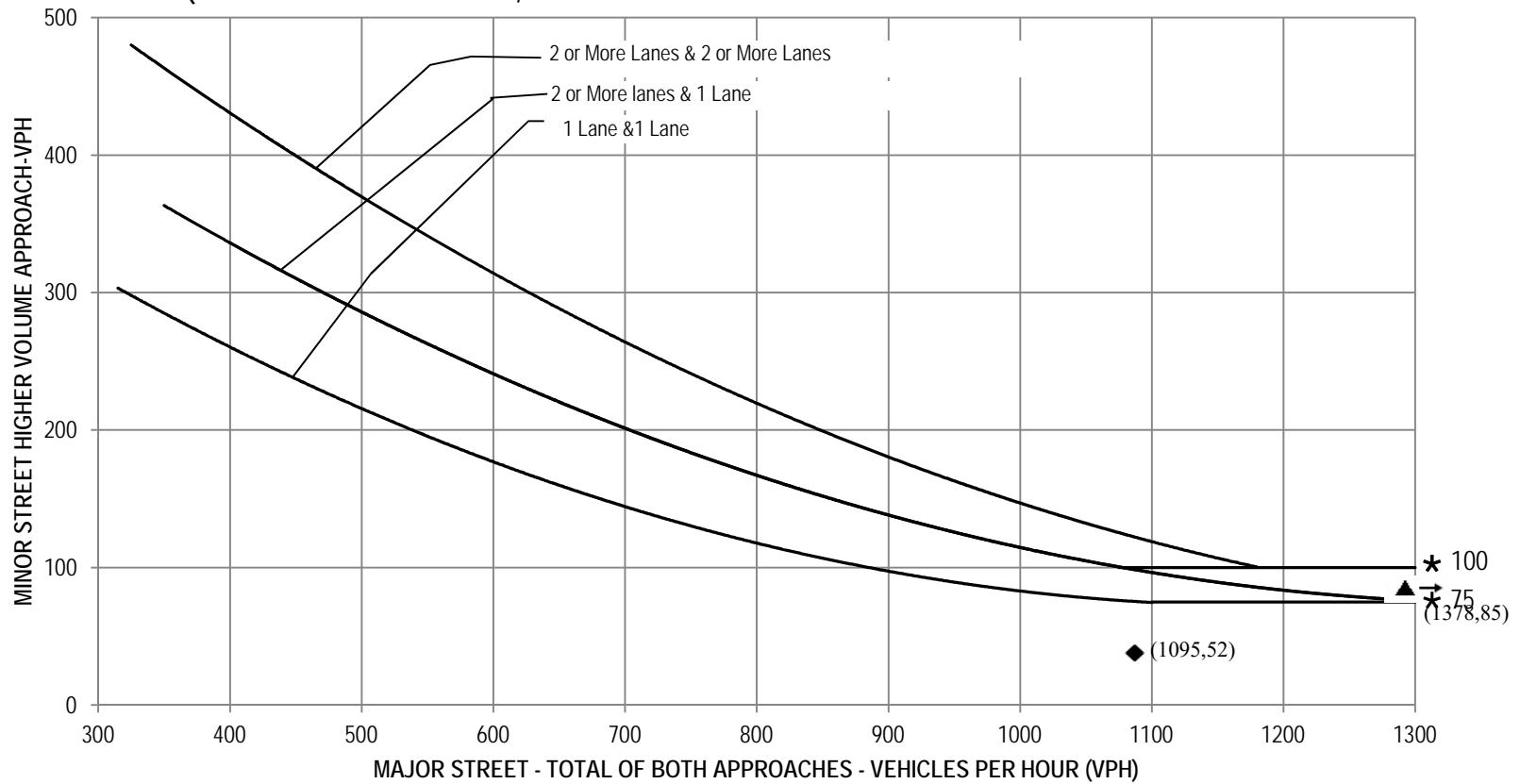
08/18/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↕	
Traffic Volume (veh/h)	0	448	17	41	676	0	33	0	37	4	0	0
Future Volume (veh/h)	0	448	17	41	676	0	33	0	37	4	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	472	18	43	712	0	35	0	39	4	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	554	21	132	820	0	401	24	400	786	0	0
Arrive On Green	0.00	0.30	0.30	0.15	0.86	0.00	0.47	0.00	0.47	0.49	0.00	0.00
Sat Flow, veh/h	0	1818	69	1714	1900	0	678	49	810	1410	0	0
Grp Volume(v), veh/h	0	0	490	43	712	0	74	0	0	4	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1888	1714	1900	0	1537	0	0	1410	0	0
Q Serve(g_s), s	0.0	0.0	19.5	1.8	16.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	19.5	1.8	16.4	0.0	1.9	0.0	0.0	0.1	0.0	0.0
Prop In Lane	0.00		0.04	1.00		0.00	0.47		0.53	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	575	132	820	0	786	0	0	786	0	0
V/C Ratio(X)	0.00	0.00	0.85	0.33	0.87	0.00	0.09	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	0	0	897	236	1259	0	786	0	0	786	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.32	0.32	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	26.1	32.0	4.2	0.0	11.3	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.9	0.5	1.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	9.1	0.7	2.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.0	32.5	5.7	0.0	11.5	0.0	0.0	10.3	0.0	0.0
LnGrp LOS	A	A	C	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		490			755			74				4
Approach Delay, s/veh		31.0			7.2			11.5				10.3
Approach LOS		C			A			B				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		41.5	10.2	28.4		41.5		38.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s		19.0	11.0	38.0		19.0		53.0				
Max Q Clear Time (g_c+I1), s		3.9	3.8	21.5		2.1		18.4				
Green Ext Time (p_c), s		0.3	0.0	2.9		0.0		5.9				
Intersection Summary												
HCM 6th Ctrl Delay			16.3									
HCM 6th LOS			B									

APPENDIX D: PEAK HOUR SIGNAL WARRANT ANALYSIS

WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 1

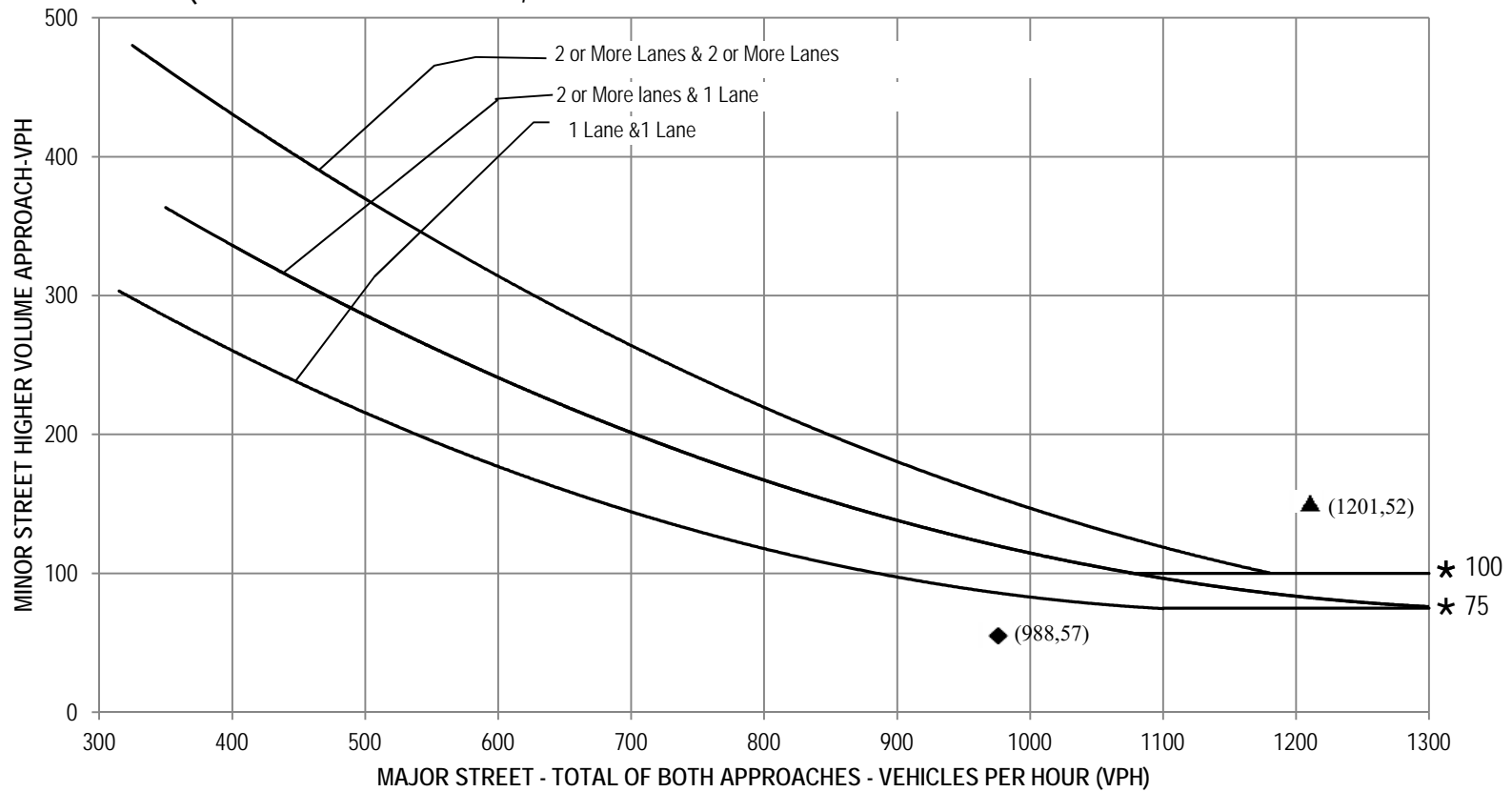
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Bear Springs Road/State Route 18
 Existing Plus Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 2

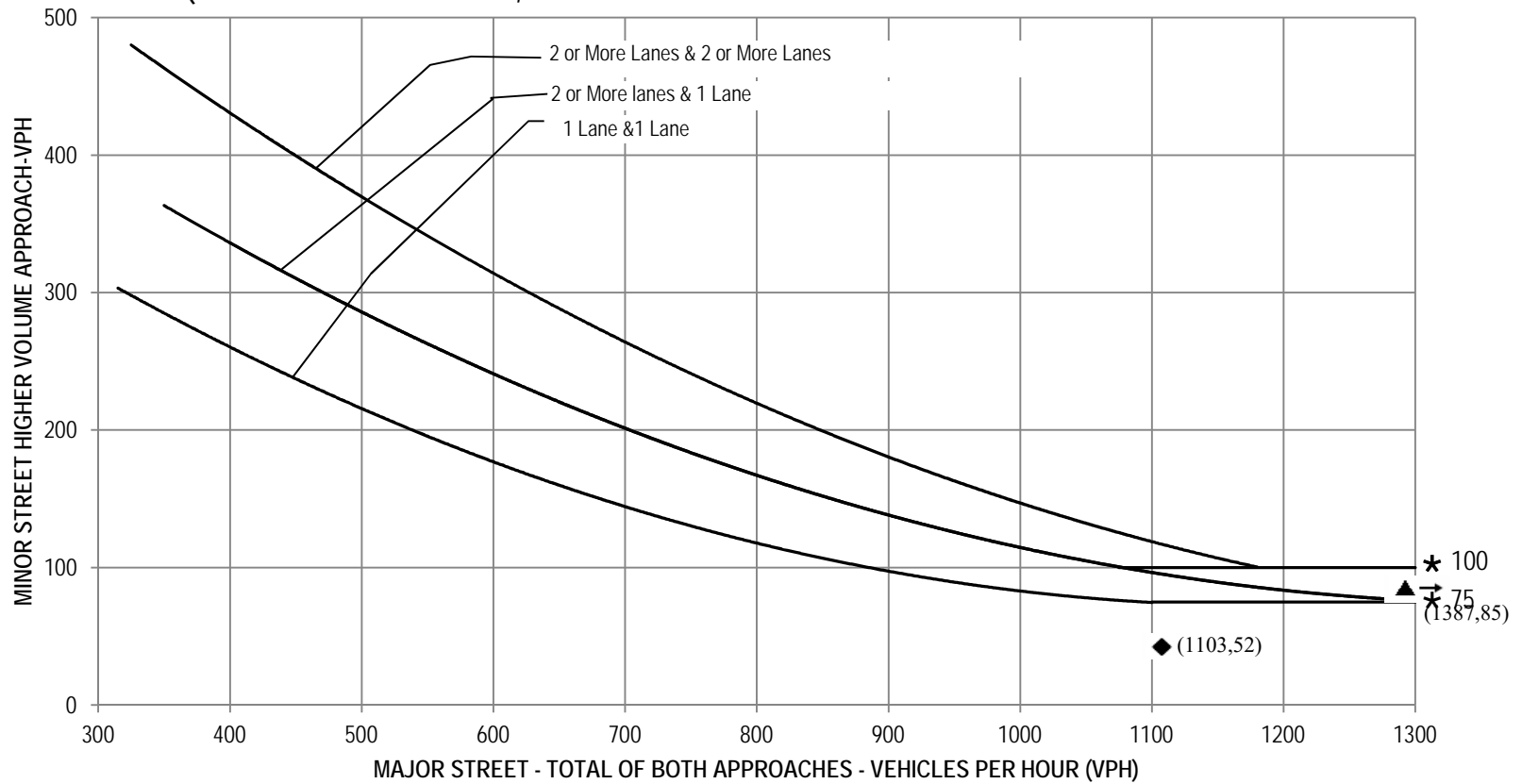
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Pine Avenue/State Route 18
 Existing Plus Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 3

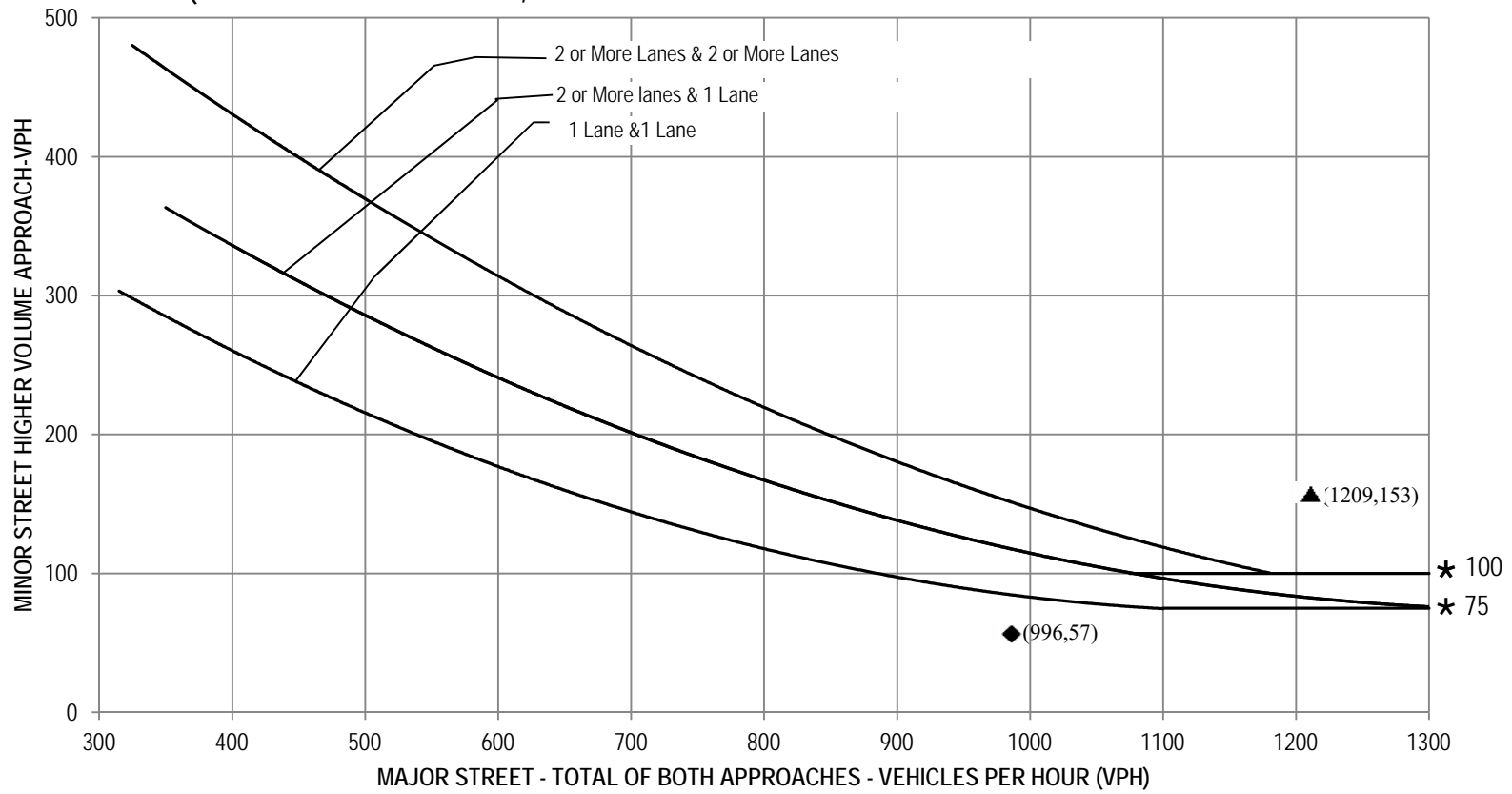
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Bear Springs Road/State Route 18
 Opening Year (2018) With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 4

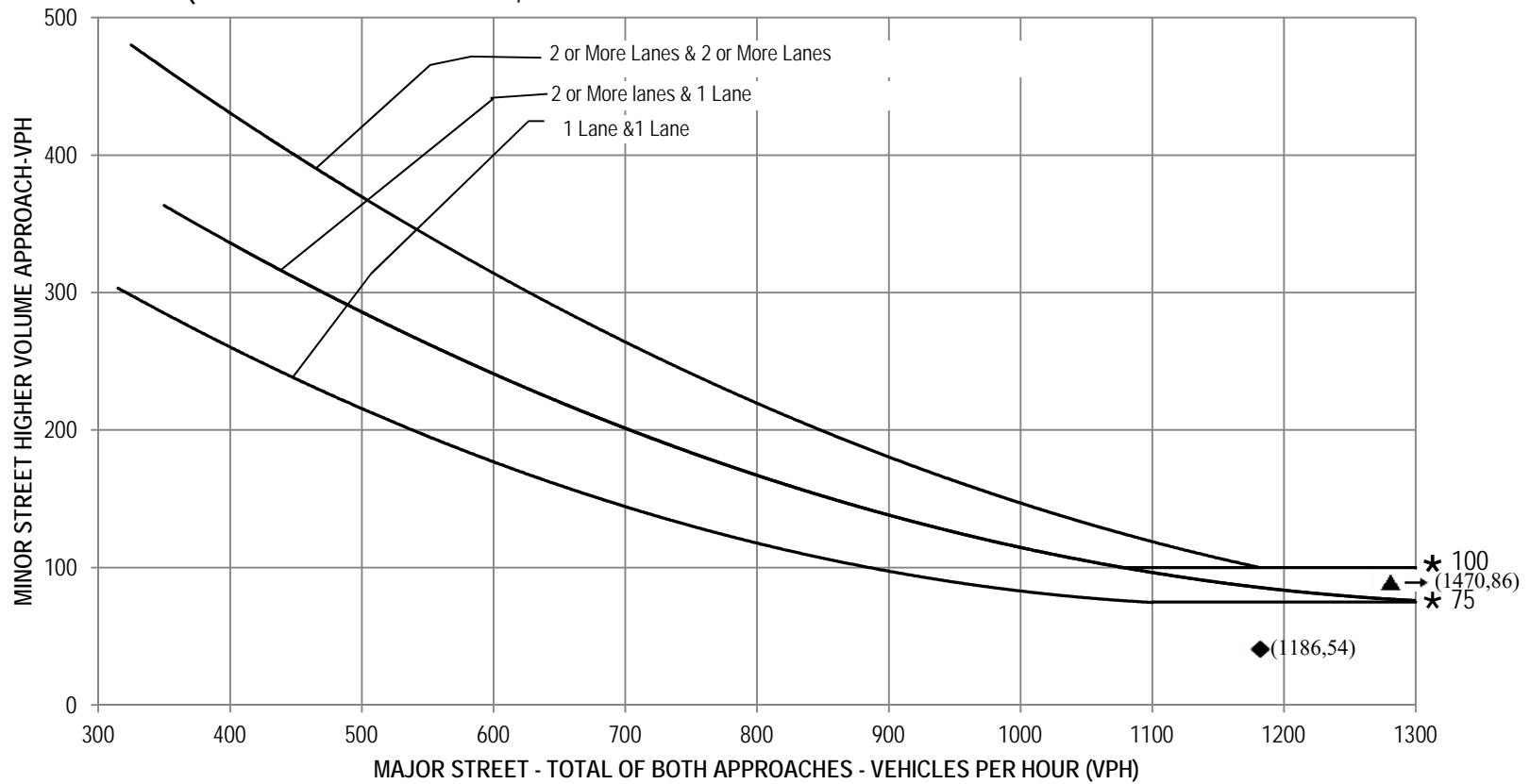
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Pine Avenue/State Route 18
Opening Year (2018) With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 5

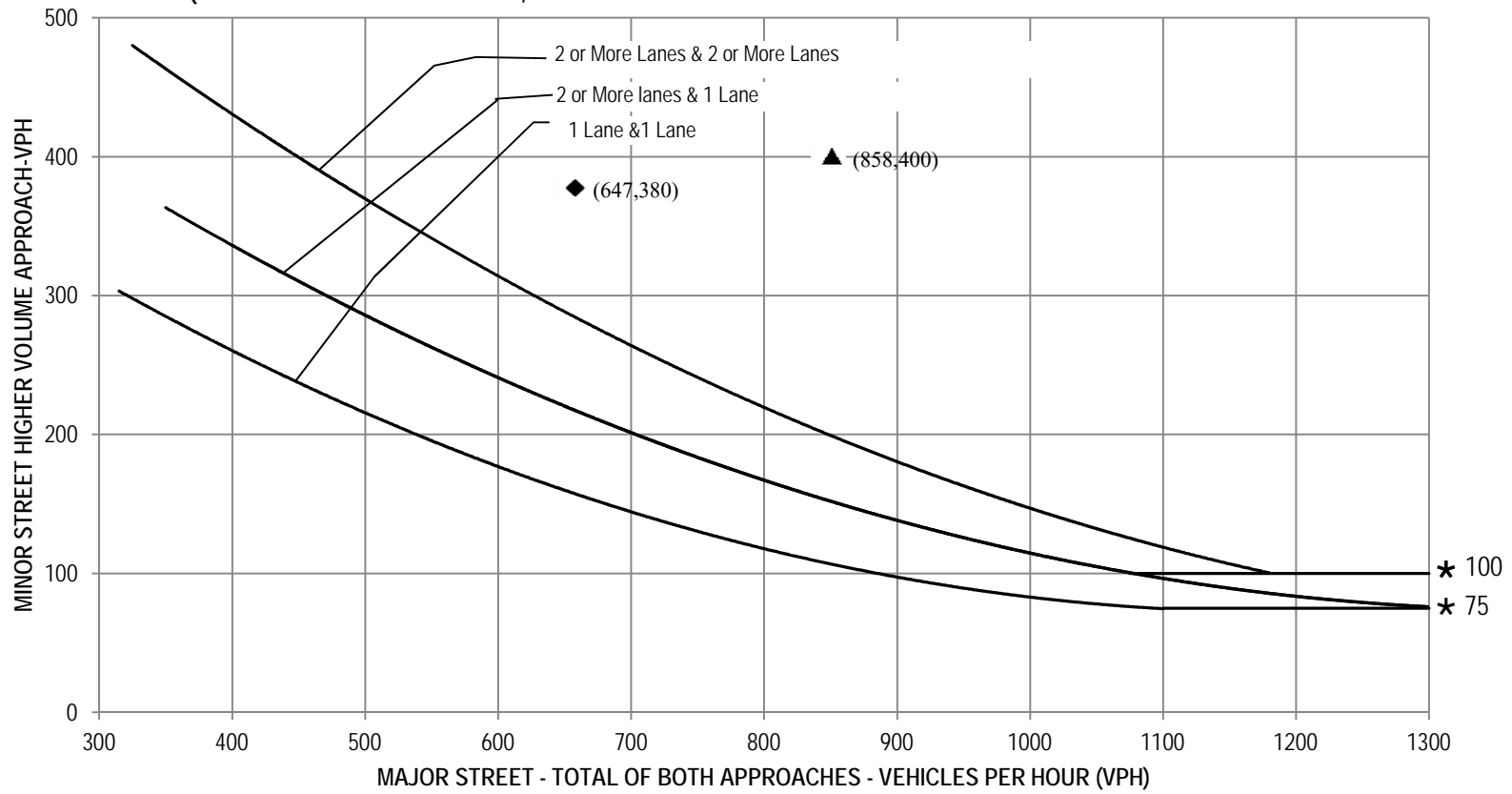
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Bear Springs Road/State Route 18
 Cumulative (2018) With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 6

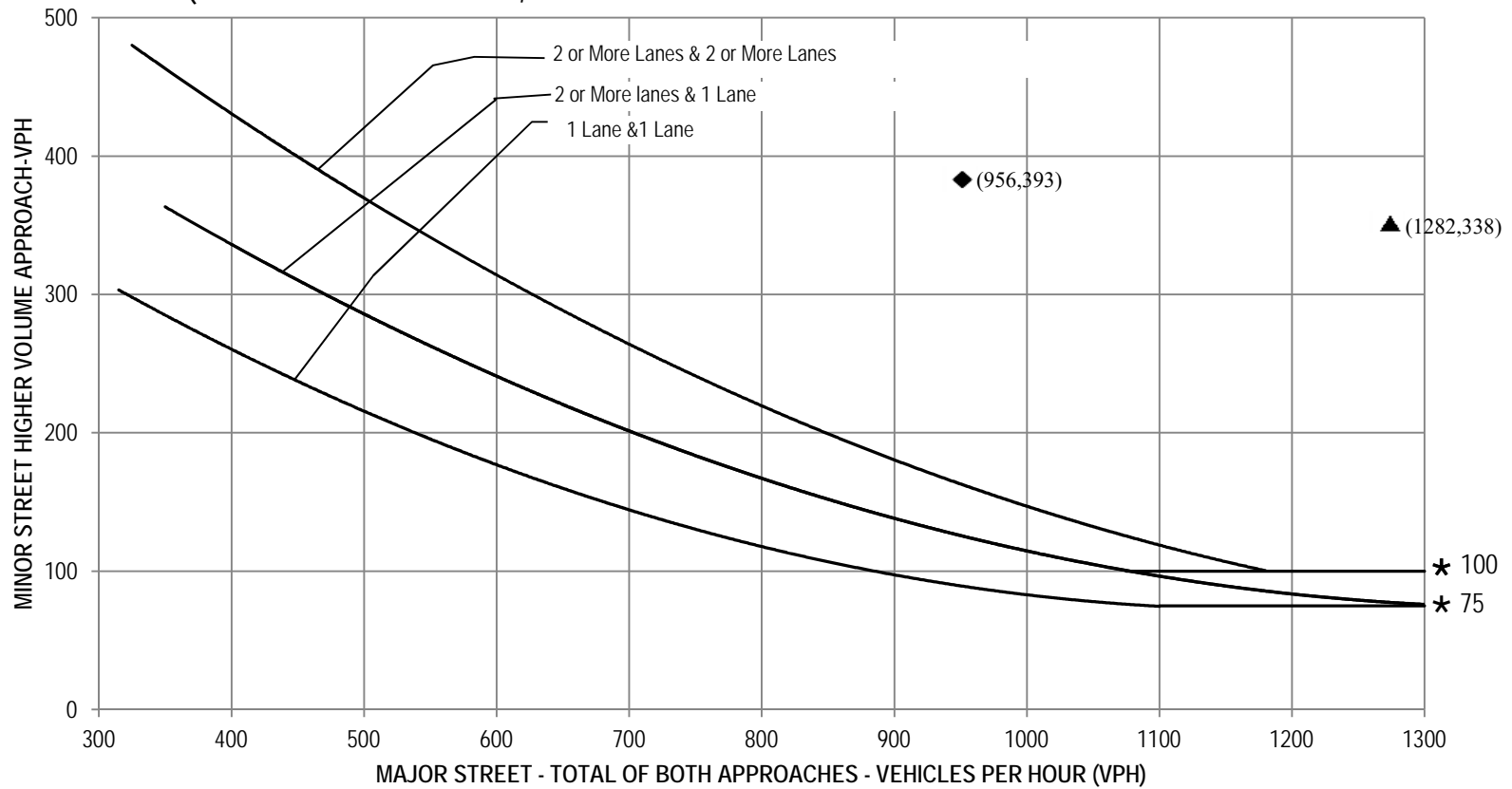
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Daley Canyon Road/State Route 189
 Cumulative (2018) With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 7

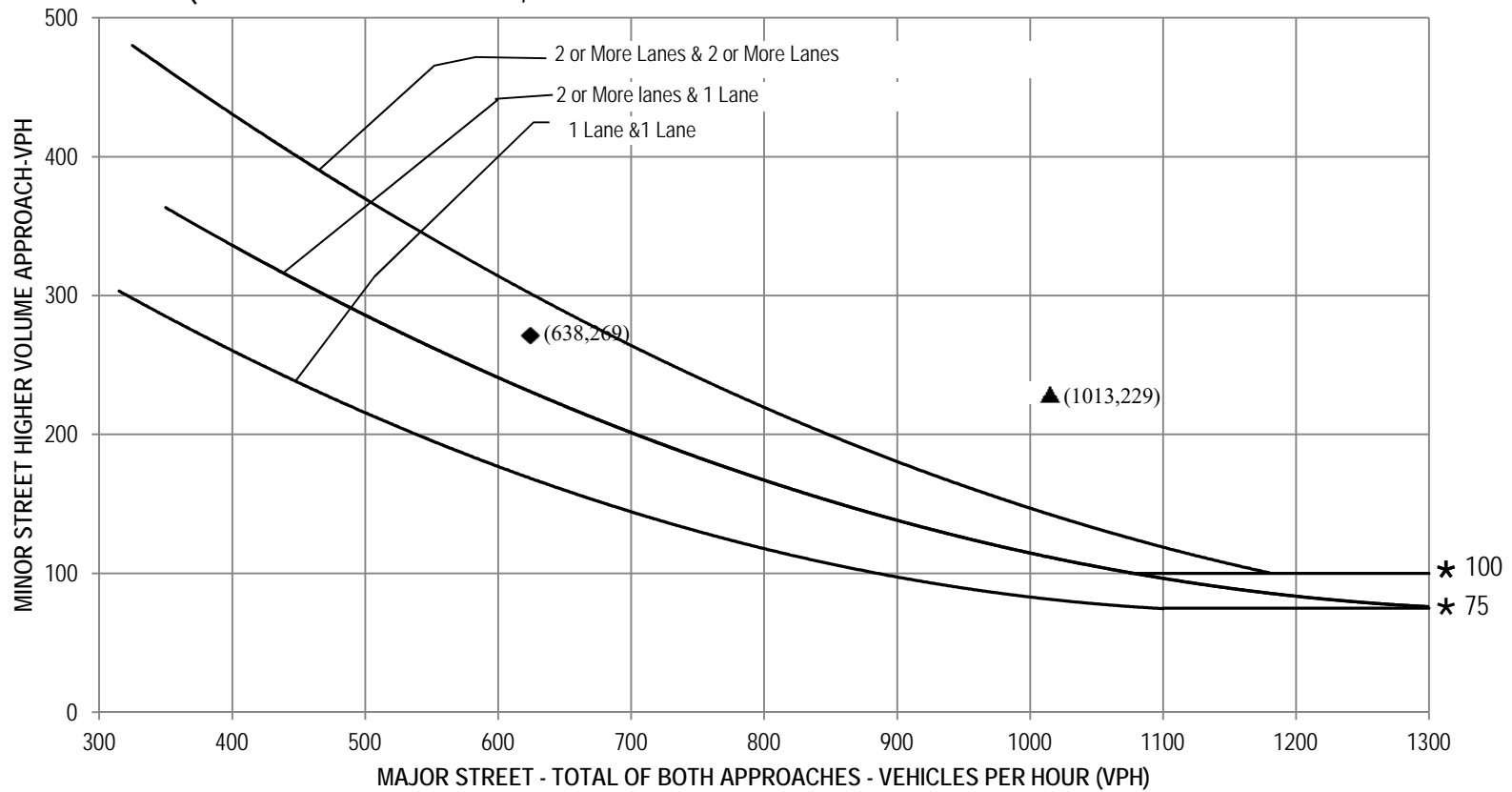
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
 Signal Warrant for Daley Canyon Road/State Route 18
 Cumulative (2018) With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 8

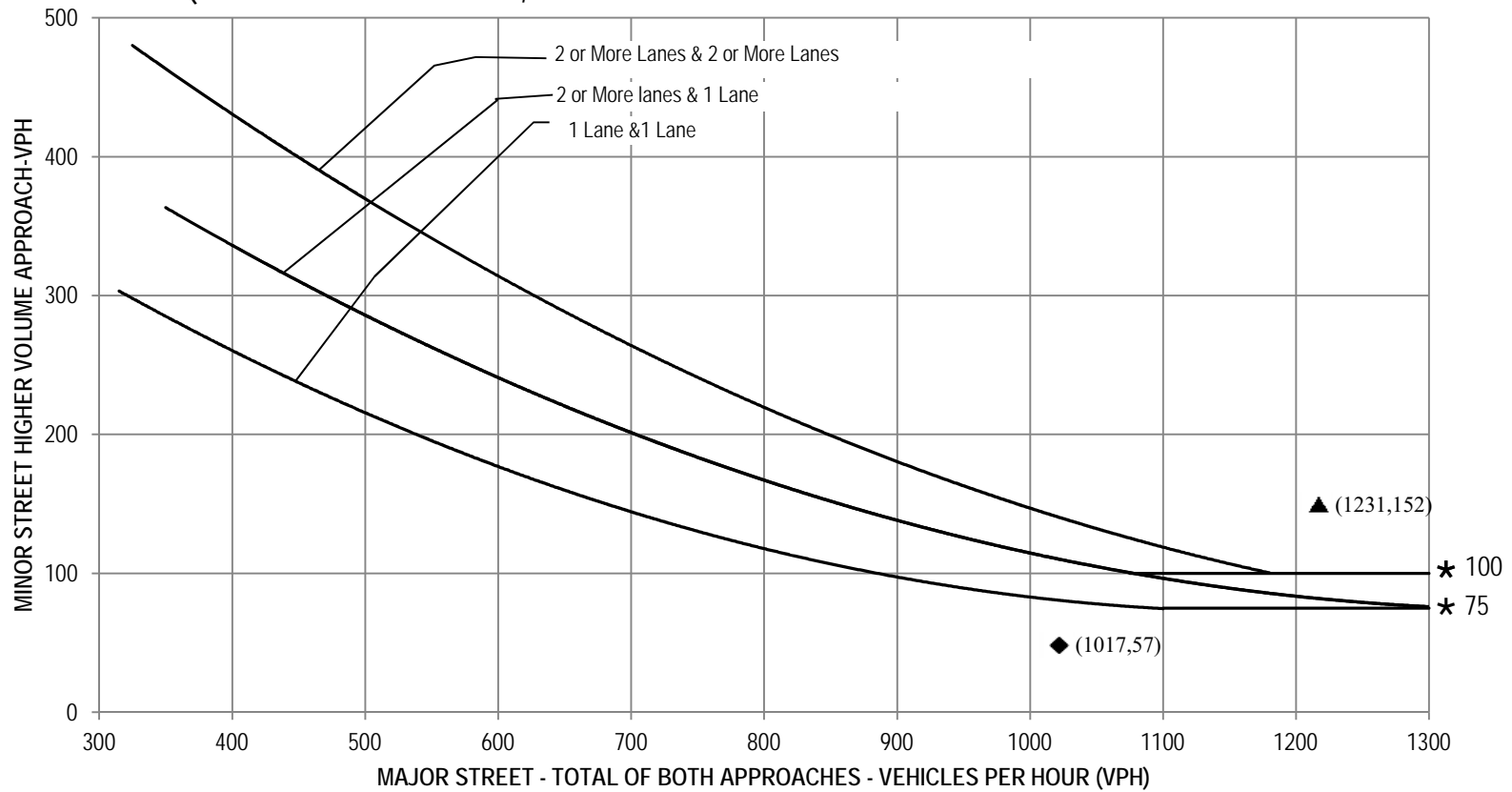
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for State Route 173/State Route 18
Cumulative (2018) With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 9

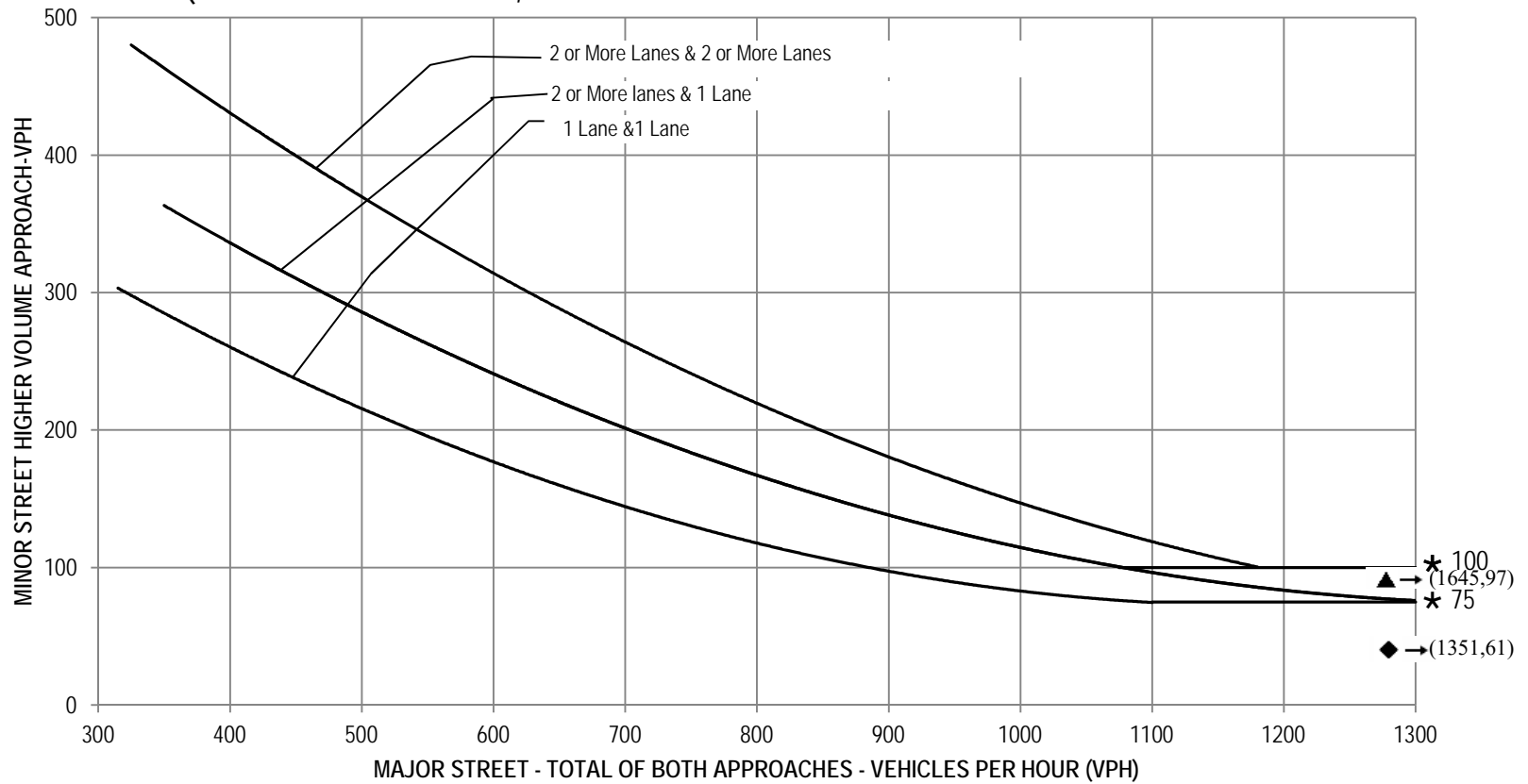
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
 Signal Warrant for Pine Avenue/State Route 18
 Cumulative (2018) With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 10

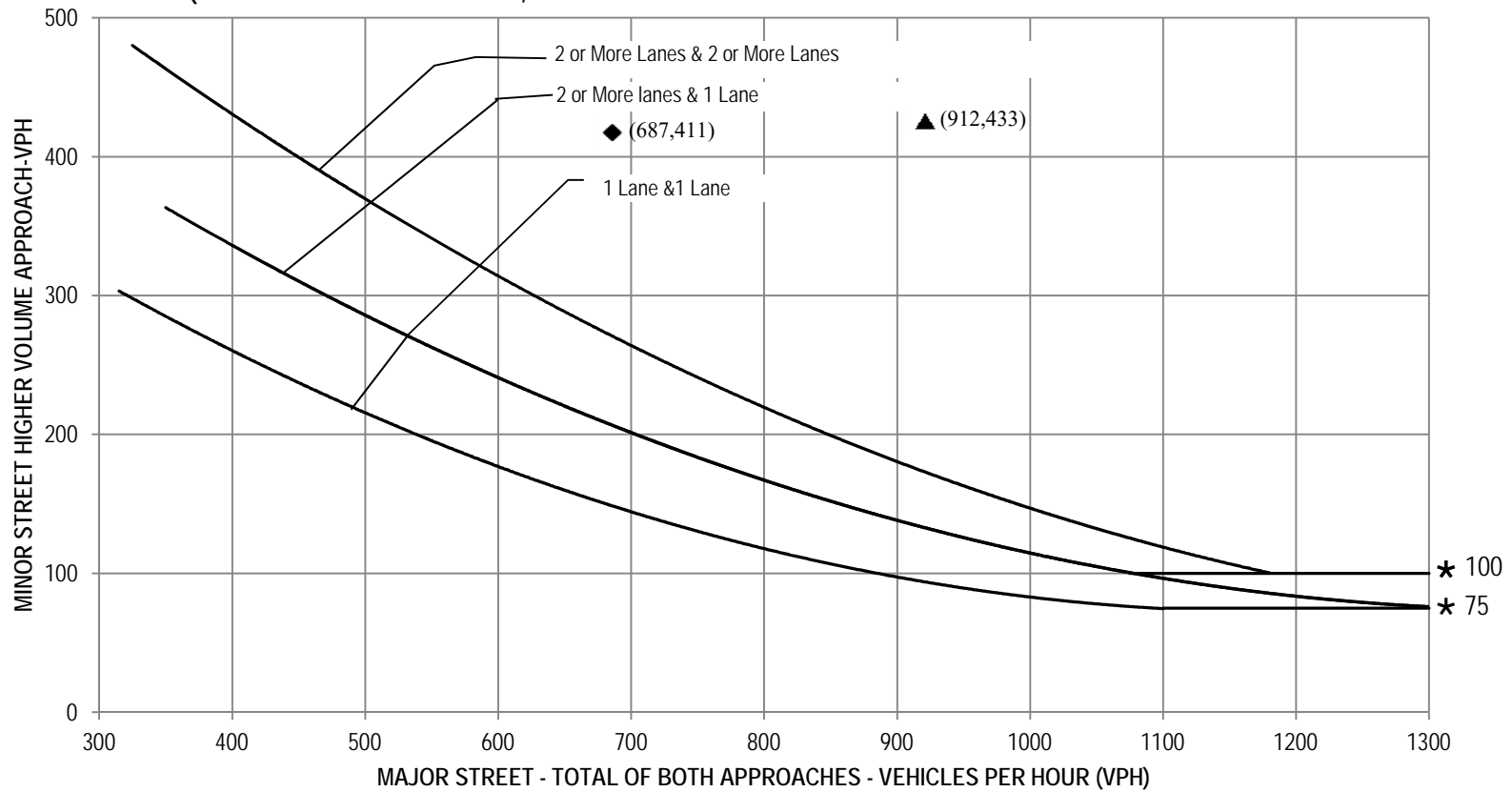
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Bear Springs Road/State Route 18
 Year 2040 With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 11

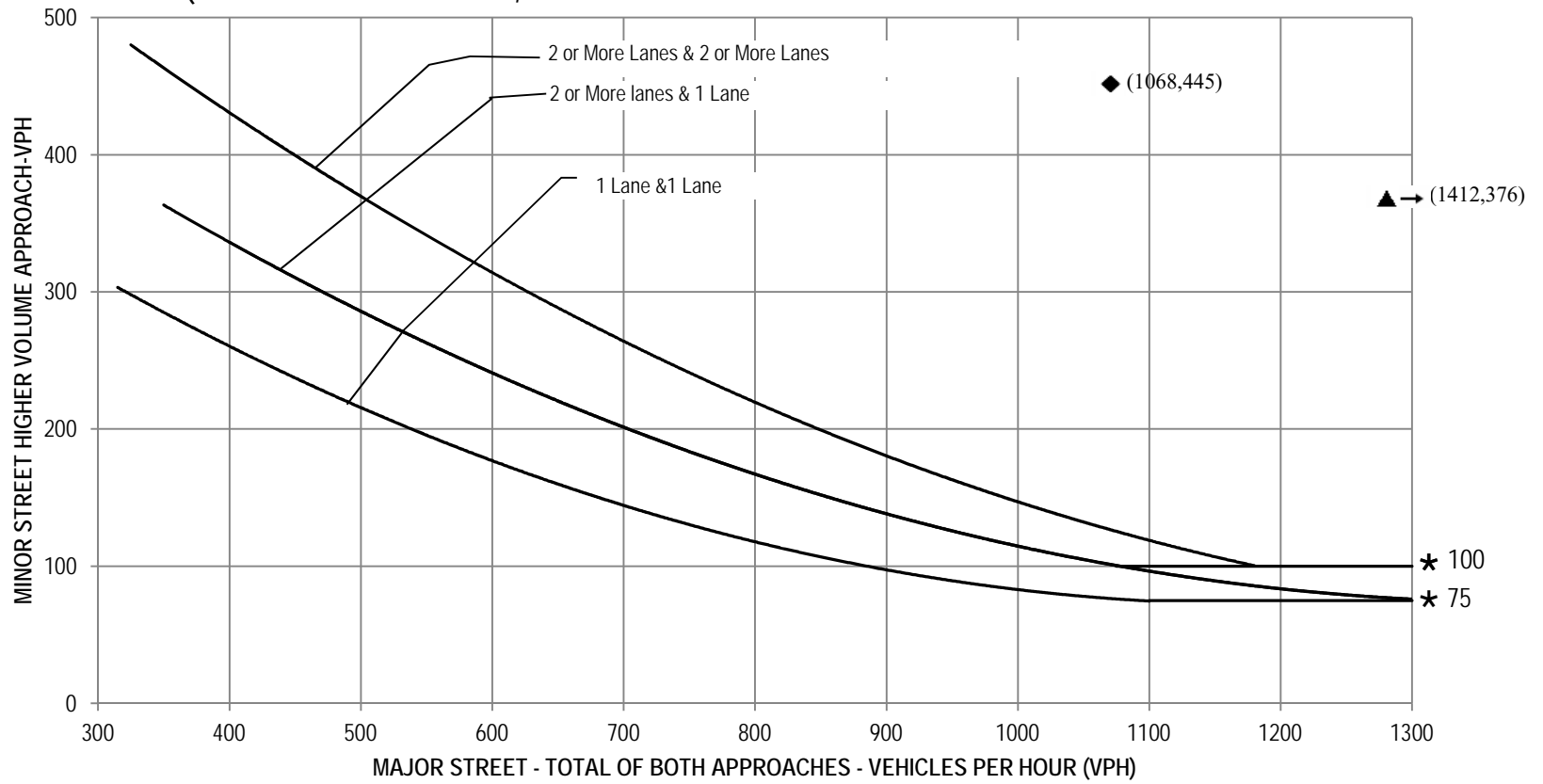
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
 Signal Warrant for Daley Canyon Road/State Route 189
 Year 2040 With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 12

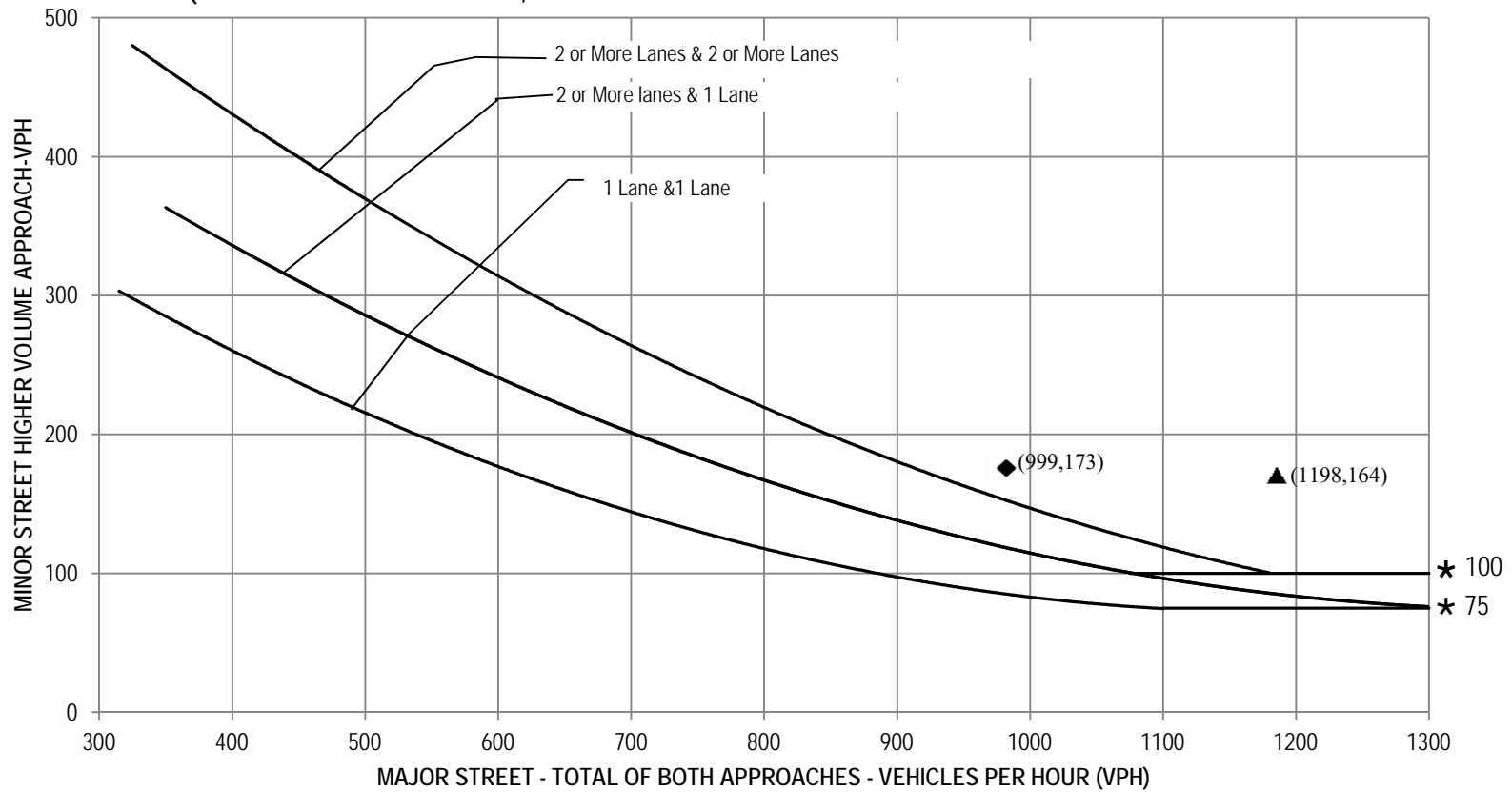
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Daley Canyon Road/State Route 18
 Year 2040 With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 13

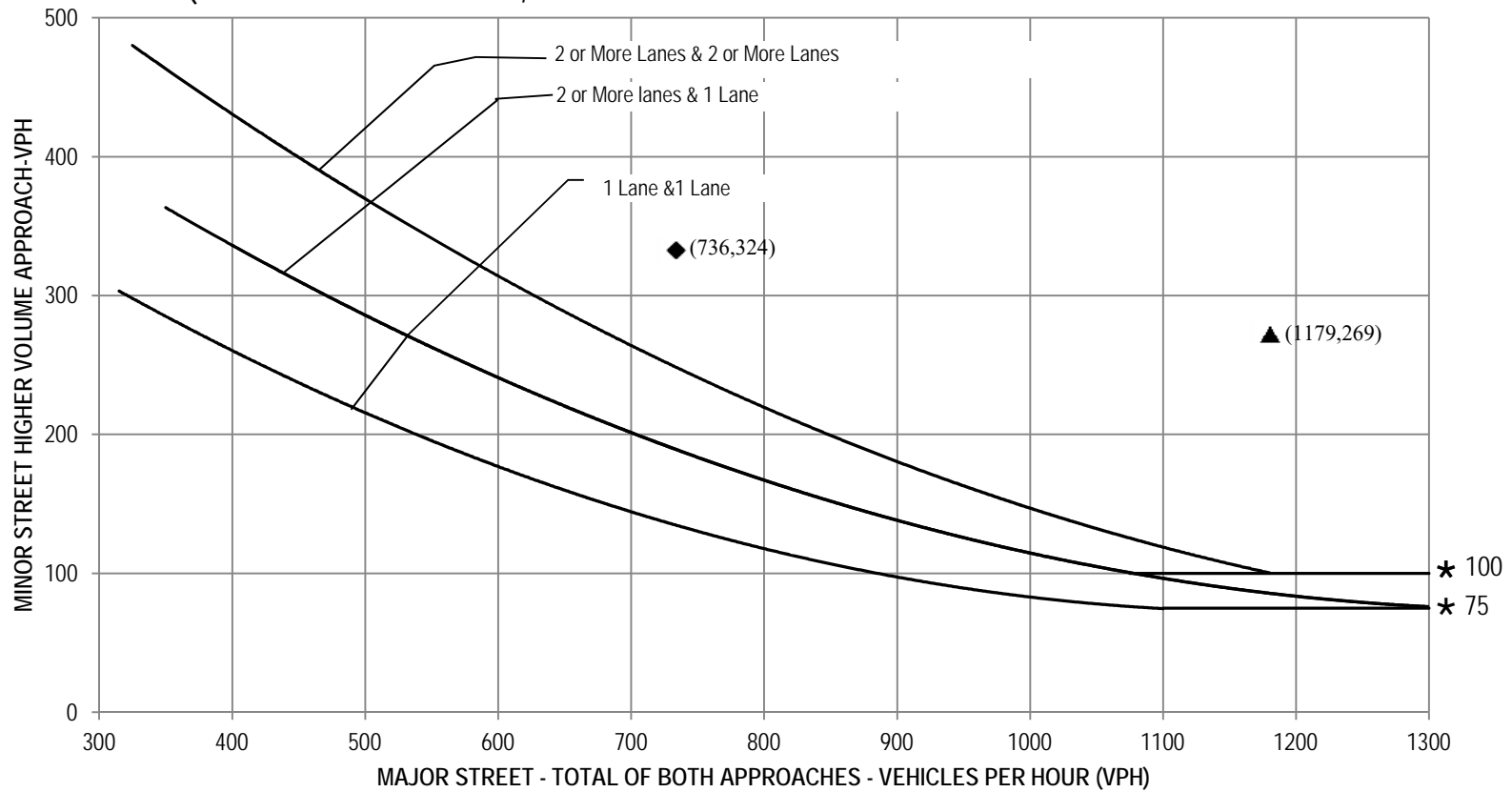
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Daley Canyon Access Road/State Route 18
 Year 2040 With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 14

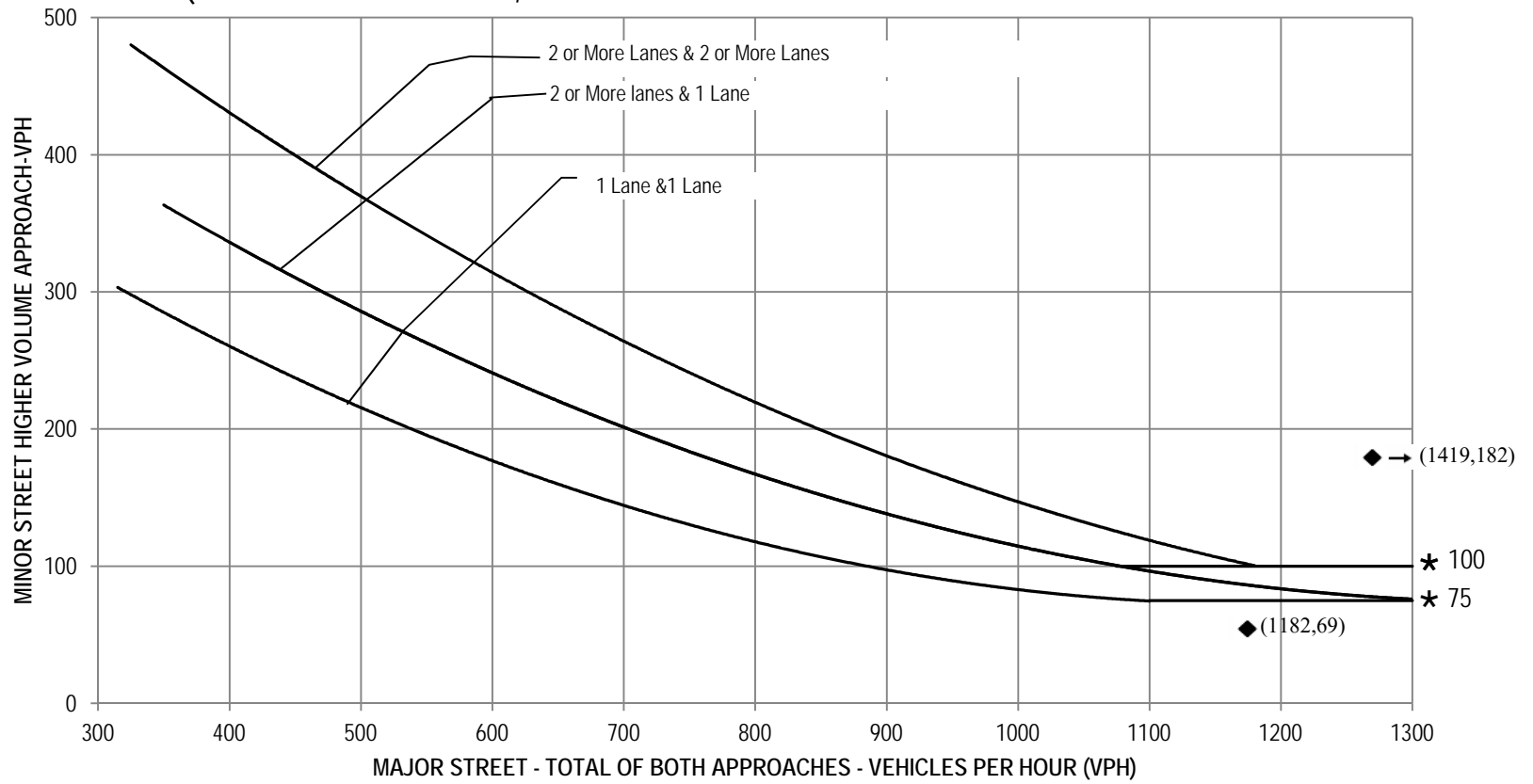
- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for State Route 173/State Route 18
Year 2040 With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



* 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.

FIGURE D - 15

- ▲ Saturday Peak Hour
- ◆ Sunday Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4.

Church of the Woods
Signal Warrant for Pine Avenue/State Route 18
Year 2040 With Project Peak Hour Signal Warrant



APPENDIX E: PROJECT FAIR-SHARE CALCULATION

E-1 - Project Fair Share Calculation

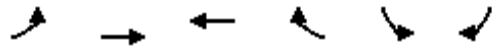
Intersection	Saturday Peak Hour					Sunday Peak Hour					Project Fair Share %
	Total Volume		Total Growth	Project Trips	Project %	Total Volume		Total Growth	Project Trips	Project %	
	2017	2040 With Project				2017	2040 With Project				
4 . Bear Springs Road/State Route 18	2,660	3,497	837	274	32.7%	2,020	2,829	809	278	34.4%	34.4%
8 . Daley Canyon Road/State Route 189	2,122	2,693	571	314	55.0%	1,660	2,198	538	316	58.7%	58.7%
10 . Daley Canyon Road/State Route 18	2,504	3,579	1,075	508	47.2%	1,964	3,028	1,064	514	48.3%	48.3%
11 . Daley Canyon Access Road/State Route 18	2,080	2,727	647	196	30.3%	1,640	2,347	707	198	28.0%	30.3%
17 . State Route 173/State Route 18	2,050	2,899	849	158	18.6%	1,406	2,123	717	158	22.0%	22.0%
18 . Pine Avenue/State Route 18	2,516	3,210	694	196	28.2%	1,898	2,512	614	198	32.3%	32.3%

APPENDIX F: QUEUEING ANALYSIS

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	104	393	327	181	261	119
v/c Ratio	0.47	0.53	0.70	0.34	0.31	0.15
Control Delay	38.7	18.7	34.3	5.2	17.0	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	18.7	34.3	5.2	17.0	4.3
Queue Length 50th (ft)	49	136	148	0	79	0
Queue Length 95th (ft)	88	148	191	34	156	29
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	262	1012	630	653	829	803
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.39	0.52	0.28	0.31	0.15

Intersection Summary

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	693	2	5	501	22	3	0	1	21	1	46
Future Vol, veh/h	35	693	2	5	501	22	3	0	1	21	1	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	37	729	2	5	527	23	3	0	1	22	1	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	550	0	0	731	0	0	1377	1364	730	1354	1354	539
Stage 1	-	-	-	-	-	-	804	804	-	549	549	-
Stage 2	-	-	-	-	-	-	573	560	-	805	805	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1030	-	-	883	-	-	123	149	426	128	151	546
Stage 1	-	-	-	-	-	-	380	398	-	524	520	-
Stage 2	-	-	-	-	-	-	508	514	-	379	398	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1030	-	-	883	-	-	108	143	426	124	145	546
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	143	-	124	145	-
Stage 1	-	-	-	-	-	-	366	384	-	505	517	-
Stage 2	-	-	-	-	-	-	459	511	-	364	384	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			32.9			21.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	108	426	1030	-	-	883	-	-	125	546
HCM Lane V/C Ratio	0.029	0.002	0.036	-	-	0.006	-	-	0.185	0.089
HCM Control Delay (s)	39.3	13.5	8.6	-	-	9.1	-	-	40.2	12.2
HCM Lane LOS	E	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	0.6	0.3

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/11/2018

Intersection						
Int Delay, s/veh	8.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	198	137	73	140	69	144
Future Vol, veh/h	198	137	73	140	69	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	208	144	77	147	73	152

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	449	151	0	0	224
Stage 1	151	-	-	-	-
Stage 2	298	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	571	901	-	-	1357
Stage 1	882	-	-	-	-
Stage 2	758	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	540	901	-	-	1357
Mov Cap-2 Maneuver	540	-	-	-	-
Stage 1	834	-	-	-	-
Stage 2	758	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	646	1357
HCM Lane V/C Ratio	-	-	0.546	0.054
HCM Control Delay (s)	-	-	17.1	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.3	0.2

Intersection

Int Delay, s/veh 4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	291	424	285	1	4	247
Future Vol, veh/h	291	424	285	1	4	247
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	306	446	300	1	4	260

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	301	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1272	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1272	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	3.6	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1272	-	-	-	689
HCM Lane V/C Ratio	0.241	-	-	-	0.383
HCM Control Delay (s)	8.7	-	-	-	13.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.9	-	-	-	1.8

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/11/2018

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	7	423	296	178	129	7
Future Vol, veh/h	7	423	296	178	129	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	465	325	196	142	8

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	521	0	806
Stage 1	-	-	325
Stage 2	-	-	481
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1056	-	354
Stage 1	-	-	737
Stage 2	-	-	626
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1056	-	351
Mov Cap-2 Maneuver	-	-	351
Stage 1	-	-	731
Stage 2	-	-	626

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	21.8
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1056	-	-	-	361
HCM Lane V/C Ratio	0.007	-	-	-	0.414
HCM Control Delay (s)	8.4	-	-	-	21.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	207	268	191	99	86	184
Future Vol, veh/h	207	268	191	99	86	184
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	227	295	210	109	95	202
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.6	14.3	11.6
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	66%	0%	0%
Vol Right, %	0%	0%	34%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	268	290	86	184
LT Vol	207	0	0	86	0
Through Vol	0	268	191	0	0
RT Vol	0	0	99	0	184
Lane Flow Rate	227	295	319	95	202
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.401	0.477	0.502	0.188	0.333
Departure Headway (Hd)	6.341	5.835	5.668	7.144	5.925
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	569	618	634	503	607
Service Time	4.079	3.572	3.706	4.887	3.668
HCM Lane V/C Ratio	0.399	0.477	0.503	0.189	0.333
HCM Control Delay	13.3	13.8	14.3	11.5	11.6
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.9	2.6	2.8	0.7	1.5

Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	205	331	224	88	56	121
Future Vol, veh/h	205	331	224	88	56	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	223	360	243	96	61	132

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	339	0	-	0	1097 291
Stage 1	-	-	-	-	291 -
Stage 2	-	-	-	-	806 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1231	-	-	-	238 753
Stage 1	-	-	-	-	763 -
Stage 2	-	-	-	-	443 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1231	-	-	-	195 753
Mov Cap-2 Maneuver	-	-	-	-	195 -
Stage 1	-	-	-	-	625 -
Stage 2	-	-	-	-	443 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1231	-	-	-	395
HCM Lane V/C Ratio	0.181	-	-	-	0.487
HCM Control Delay (s)	8.6	-	-	-	22.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.7	-	-	-	2.6

HCM 6th TWSC
18: Pine Ave & SR-18

09/11/2018

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	556	34	129	382	1	34	0	118	2	0	1
Future Vol, veh/h	1	556	34	129	382	1	34	0	118	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	567	35	132	390	1	35	0	120	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	391	0	0	602
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1179	-	-	985
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1179	-	-	985
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	26.6	32.7
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	318	1179	-	-	985	-	-	133
HCM Lane V/C Ratio	0.488	0.001	-	-	0.134	-	-	0.023
HCM Control Delay (s)	26.6	8.1	0	-	9.2	-	-	32.7
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	2.5	0	-	-	0.5	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	94	234	464	119	155	158
v/c Ratio	0.44	0.27	0.77	0.20	0.22	0.22
Control Delay	38.4	11.4	32.6	4.0	20.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	11.4	32.6	4.0	20.0	4.9
Queue Length 50th (ft)	44	62	204	0	51	0
Queue Length 95th (ft)	86	74	262	27	109	40
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	242	1125	765	718	714	730
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.21	0.61	0.17	0.22	0.22

Intersection Summary

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Vol, veh/h	16	369	0	2	577	12	0	0	2	14	0	18
Future Vol, veh/h	16	369	0	2	577	12	0	0	2	14	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	65	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	450	0	2	704	15	0	0	2	17	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	719	0	0	450	0	0	1217	1213	450	1207	1206	712
Stage 1	-	-	-	-	-	-	490	490	-	716	716	-
Stage 2	-	-	-	-	-	-	727	723	-	491	490	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	892	-	-	1121	-	-	159	183	613	162	185	436
Stage 1	-	-	-	-	-	-	564	552	-	424	437	-
Stage 2	-	-	-	-	-	-	419	434	-	563	552	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	892	-	-	1121	-	-	148	179	613	158	181	436
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	179	-	158	181	-
Stage 1	-	-	-	-	-	-	552	540	-	415	436	-
Stage 2	-	-	-	-	-	-	397	433	-	548	540	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.9	21.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	613	892	-	-	1121	-	-	158	436
HCM Lane V/C Ratio	-	0.004	0.022	-	-	0.002	-	-	0.108	0.05
HCM Control Delay (s)	0	10.9	9.1	-	-	8.2	-	-	30.5	13.7
HCM Lane LOS		A	B	A	-	A	-	-	D	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0	-	-	0.4	0.2

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/11/2018

Intersection						
Int Delay, s/veh	8.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	196	137	49	91	60	127
Future Vol, veh/h	196	137	49	91	60	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	218	152	54	101	67	141

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	380	105	0	0	155	0
Stage 1	105	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	626	955	-	-	1438	-
Stage 1	924	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	594	955	-	-	1438	-
Mov Cap-2 Maneuver	594	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	776	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	703	1438
HCM Lane V/C Ratio	-	-	0.526	0.046
HCM Control Delay (s)	-	-	15.7	7.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.1	0.1

Intersection

Int Delay, s/veh 5.8

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations						
Traffic Vol, veh/h	115	269	298	5	2	293
Future Vol, veh/h	115	269	298	5	2	293
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	140	328	363	6	2	357

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	369	0	-	0	974	366
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	608	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1201	-	-	-	282	684
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	547	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1201	-	-	-	249	684
Mov Cap-2 Maneuver	-	-	-	-	249	-
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	547	-

Approach EB WB SB

HCM Control Delay, s	2.5	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1201	-	-	-	676
HCM Lane V/C Ratio	0.117	-	-	-	0.532
HCM Control Delay (s)	8.4	-	-	-	16.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	3.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/11/2018

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	265	300	112	128	4
Future Vol, veh/h	11	265	300	112	128	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	298	337	126	144	4

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	463	0	659
Stage 1	-	-	337
Stage 2	-	-	322
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1109	-	432
Stage 1	-	-	728
Stage 2	-	-	739
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1109	-	427
Mov Cap-2 Maneuver	-	-	427
Stage 1	-	-	720
Stage 2	-	-	739

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1109	-	-	-	432
HCM Lane V/C Ratio	0.011	-	-	-	0.343
HCM Control Delay (s)	8.3	-	-	-	17.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.5

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	129	160	140	40	65	197
Future Vol, veh/h	129	160	140	40	65	197
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	142	176	154	44	71	216
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.4	10.6	10.1
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	78%	0%	0%
Vol Right, %	0%	0%	22%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	160	180	65	197
LT Vol	129	0	0	65	0
Through Vol	0	160	140	0	0
RT Vol	0	0	40	0	197
Lane Flow Rate	142	176	198	71	216
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.234	0.266	0.291	0.125	0.306
Departure Headway (Hd)	5.951	5.446	5.289	6.294	5.083
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	598	652	673	566	701
Service Time	3.74	3.235	3.378	4.073	2.862
HCM Lane V/C Ratio	0.237	0.27	0.294	0.125	0.308
HCM Control Delay	10.6	10.2	10.6	10	10.1
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.9	1.1	1.2	0.4	1.3

Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	149	132	151	56	55	160
Future Vol, veh/h	149	132	151	56	55	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	162	143	164	61	60	174

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	225	0	-	0	662 195
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	467 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1356	-	-	-	430 851
Stage 1	-	-	-	-	843 -
Stage 2	-	-	-	-	635 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1356	-	-	-	379 851
Mov Cap-2 Maneuver	-	-	-	-	379 -
Stage 1	-	-	-	-	743 -
Stage 2	-	-	-	-	635 -

Approach	EB	WB	SB
HCM Control Delay, s	4.2	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1356	-	-	-	645
HCM Lane V/C Ratio	0.119	-	-	-	0.362
HCM Control Delay (s)	8	-	-	-	13.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.7

HCM 6th TWSC
18: Pine Ave & SR-18

09/11/2018

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	327	14	34	514	0	27	0	30	3	0	0
Future Vol, veh/h	0	327	14	34	514	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	399	17	41	627	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	627	0	0	416	0	0	1117	1117	408	1135	1125	627
Stage 1	-	-	-	-	-	-	408	408	-	709	709	-
Stage 2	-	-	-	-	-	-	709	709	-	426	416	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	965	-	-	1154	-	-	186	209	648	181	207	487
Stage 1	-	-	-	-	-	-	624	600	-	428	440	-
Stage 2	-	-	-	-	-	-	428	440	-	610	595	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	965	-	-	1154	-	-	181	201	648	166	200	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	201	-	166	200	-
Stage 1	-	-	-	-	-	-	624	600	-	428	424	-
Stage 2	-	-	-	-	-	-	413	424	-	576	595	-

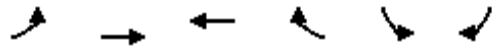
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			21.1			27.2		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	292	965	-	-	1154	-	-	166
HCM Lane V/C Ratio	0.238	-	-	-	0.036	-	-	0.022
HCM Control Delay (s)	21.1	0	-	-	8.2	-	-	27.2
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	104	413	353	220	292	119
v/c Ratio	0.47	0.54	0.72	0.38	0.36	0.15
Control Delay	38.7	18.3	34.4	5.0	18.1	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	18.3	34.4	5.0	18.1	4.4
Queue Length 50th (ft)	49	141	159	0	94	0
Queue Length 95th (ft)	88	156	207	36	175	29
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	262	1012	630	678	808	786
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.41	0.56	0.32	0.36	0.15

Intersection Summary

Queues

5: SR-18 & Project Driveway

09/11/2018






Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	65	776	574	121	157	84
v/c Ratio	0.32	0.65	0.61	0.14	0.41	0.20
Control Delay	36.8	11.3	18.1	2.8	29.6	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	11.3	18.1	2.8	29.6	7.5
Queue Length 50th (ft)	30	199	205	0	67	0
Queue Length 95th (ft)	68	311	316	25	122	34
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	201	1192	940	856	383	427
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.65	0.61	0.14	0.41	0.20

Intersection Summary

Intersection

Int Delay, s/veh 9.1

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations						
Traffic Vol, veh/h	218	137	80	166	69	149
Future Vol, veh/h	218	137	80	166	69	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	229	144	84	175	73	157

Major/Minor Minor1 Major1 Major2

Conflicting Flow All	475	172	0	0	259	0
Stage 1	172	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	552	877	-	-	1317	-
Stage 1	863	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	518	877	-	-	1317	-
Mov Cap-2 Maneuver	518	-	-	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s	19.5	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	615	1317	-
HCM Lane V/C Ratio	-	-	0.608	0.055	-
HCM Control Delay (s)	-	-	19.5	7.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2	-

Intersection

Int Delay, s/veh 5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	379	479	328	1	4	315
Future Vol, veh/h	379	479	328	1	4	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	399	504	345	1	4	332

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	346	0	0 1648 346
Stage 1	-	-	- 346 -
Stage 2	-	-	- 1302 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1224	-	- 110 702
Stage 1	-	-	- 721 -
Stage 2	-	-	- 257 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1224	-	- 74 702
Mov Cap-2 Maneuver	-	-	- 74 -
Stage 1	-	-	- 486 -
Stage 2	-	-	- 257 -

Approach

	EB	WB	SB
HCM Control Delay, s	4.1	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1224	-	-	-	634
HCM Lane V/C Ratio	0.326	-	-	-	0.53
HCM Control Delay (s)	9.4	-	-	-	16.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1.4	-	-	-	3.1

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	478	339	178	129	7
Future Vol, veh/h	7	478	339	178	129	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	525	373	196	142	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	569	0	0	914	373
Stage 1	-	-	-	373	-
Stage 2	-	-	-	541	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1013	-	-	306	678
Stage 1	-	-	-	701	-
Stage 2	-	-	-	588	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1013	-	-	304	678
Mov Cap-2 Maneuver	-	-	-	304	-
Stage 1	-	-	-	695	-
Stage 2	-	-	-	588	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1013	-	-	-	313
HCM Lane V/C Ratio	0.008	-	-	-	0.477
HCM Control Delay (s)	8.6	-	-	-	26.6
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.4

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↘		↘	↘
Traffic Vol, veh/h	229	301	217	99	86	201
Future Vol, veh/h	229	301	217	99	86	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	252	331	238	109	95	221
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.2	16.2	12.4
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	301	316	86	201
LT Vol	229	0	0	86	0
Through Vol	0	301	217	0	0
RT Vol	0	0	99	0	201
Lane Flow Rate	252	331	347	95	221
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.453	0.549	0.563	0.193	0.376
Departure Headway (Hd)	6.482	5.975	5.837	7.355	6.133
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	556	602	618	488	585
Service Time	4.227	3.72	3.88	5.105	3.883
HCM Lane V/C Ratio	0.453	0.55	0.561	0.195	0.378
HCM Control Delay	14.5	15.8	16.2	11.9	12.6
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.3	3.3	3.5	0.7	1.7

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	238	342	233	88	56	147
Future Vol, veh/h	238	342	233	88	56	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	259	372	253	96	61	160

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	349	0	0
Stage 1	-	-	301
Stage 2	-	-	890
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1221	-	209
Stage 1	-	-	755
Stage 2	-	-	404
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1221	-	165
Mov Cap-2 Maneuver	-	-	165
Stage 1	-	-	595
Stage 2	-	-	404

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	27
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1221	-	-	-	378
HCM Lane V/C Ratio	0.212	-	-	-	0.584
HCM Control Delay (s)	8.7	-	-	-	27
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.8	-	-	-	3.6

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	599	34	129	437	1	34	0	118	2	0	1
Future Vol, veh/h	1	599	34	129	437	1	34	0	118	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	611	35	132	446	1	35	0	120	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	447	0	0	646	0	0	1342	1342	629	1402	1359	447
Stage 1	-	-	-	-	-	-	631	631	-	711	711	-
Stage 2	-	-	-	-	-	-	711	711	-	691	648	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1124	-	-	949	-	-	131	154	486	119	150	616
Stage 1	-	-	-	-	-	-	472	477	-	427	439	-
Stage 2	-	-	-	-	-	-	427	439	-	438	469	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1124	-	-	949	-	-	117	132	486	80	129	616
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	132	-	80	129	-
Stage 1	-	-	-	-	-	-	472	477	-	427	378	-
Stage 2	-	-	-	-	-	-	367	378	-	329	469	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.1			31.7			37.7		
HCM LOS							D			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	285	1124	-	-	949	-	-	113
HCM Lane V/C Ratio	0.544	0.001	-	-	0.139	-	-	0.027
HCM Control Delay (s)	31.7	8.2	0	-	9.4	-	-	37.7
HCM Lane LOS	D	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	3	0	-	-	0.5	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	94	257	486	153	188	158
v/c Ratio	0.45	0.29	0.78	0.24	0.27	0.22
Control Delay	39.5	11.3	31.8	3.7	20.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	11.3	31.8	3.7	20.9	4.9
Queue Length 50th (ft)	44	65	209	0	66	0
Queue Length 95th (ft)	87	81	270	29	130	40
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	222	1125	787	755	696	717
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.23	0.62	0.20	0.27	0.22

Intersection Summary

Queues

5: SR-18 & Project Driveway

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	74	418	642	138	141	76
v/c Ratio	0.37	0.35	0.68	0.16	0.37	0.18
Control Delay	38.0	6.9	20.1	3.0	28.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	6.9	20.1	3.0	28.8	7.7
Queue Length 50th (ft)	34	79	243	2	59	0
Queue Length 95th (ft)	75	125	375	29	110	32
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	201	1192	940	862	383	421
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.35	0.68	0.16	0.37	0.18

Intersection Summary

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/11/2018

Intersection						
Int Delay, s/veh	9.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	219	137	55	115	60	133
Future Vol, veh/h	219	137	55	115	60	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	243	152	61	128	67	148

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	407	125	0	0	189	0
Stage 1	125	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	604	931	-	-	1397	-
Stage 1	906	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	573	931	-	-	1397	-
Mov Cap-2 Maneuver	573	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	673	1397
HCM Lane V/C Ratio	-	-	0.588	0.048
HCM Control Delay (s)	-	-	17.7	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.9	0.1

Intersection

Int Delay, s/veh 8.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	195	319	347	5	2	371
Future Vol, veh/h	195	319	347	5	2	371
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	238	389	423	6	2	452

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	429	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1141	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1141	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	3.4	0	24.9
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1141	-	-	-	622
HCM Lane V/C Ratio	0.208	-	-	-	0.731
HCM Control Delay (s)	9	-	-	-	24.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.8	-	-	-	6.3

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/11/2018

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	315	349	112	128	4
Future Vol, veh/h	11	315	349	112	128	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	354	392	126	144	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	518	0	-	0	770
Stage 1	-	-	-	-	392
Stage 2	-	-	-	-	378
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1058	-	-	-	372
Stage 1	-	-	-	-	687
Stage 2	-	-	-	-	697
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1058	-	-	-	368
Mov Cap-2 Maneuver	-	-	-	-	368
Stage 1	-	-	-	-	679
Stage 2	-	-	-	-	697

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	20.9
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1058	-	-	-	373
HCM Lane V/C Ratio	0.012	-	-	-	0.398
HCM Control Delay (s)	8.4	-	-	-	20.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	149	190	169	40	65	217
Future Vol, veh/h	149	190	169	40	65	217
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	164	209	186	44	71	238
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.2	11.6	10.9
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	190	209	65	217
LT Vol	149	0	0	65	0
Through Vol	0	190	169	0	0
RT Vol	0	0	40	0	217
Lane Flow Rate	164	209	230	71	238
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.281	0.329	0.355	0.131	0.357
Departure Headway (Hd)	6.182	5.677	5.56	6.607	5.393
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	583	635	648	544	668
Service Time	3.906	3.4	3.584	4.333	3.119
HCM Lane V/C Ratio	0.281	0.329	0.355	0.131	0.356
HCM Control Delay	11.3	11.2	11.6	10.3	11.1
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.1	1.4	1.6	0.4	1.6

Intersection						
Int Delay, s/veh	6.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	179	142	161	56	55	189
Future Vol, veh/h	179	142	161	56	55	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	195	154	175	61	60	205

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	236	0	-	0	750
Stage 1	-	-	-	-	206
Stage 2	-	-	-	-	544
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1343	-	-	-	382
Stage 1	-	-	-	-	833
Stage 2	-	-	-	-	586
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1343	-	-	-	327
Mov Cap-2 Maneuver	-	-	-	-	327
Stage 1	-	-	-	-	712
Stage 2	-	-	-	-	586

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1343	-	-	-	621
HCM Lane V/C Ratio	0.145	-	-	-	0.427
HCM Control Delay (s)	8.1	-	-	-	15
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.1

HCM 6th TWSC
18: Pine Ave & SR-18

09/11/2018

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	376	14	34	564	0	27	0	30	3	0	0
Future Vol, veh/h	0	376	14	34	564	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	459	17	41	688	0	33	0	37	4	0	0

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	688	0	0	476
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	916	-	-	1097
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	916	-	-	1097
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	25.1	32
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	248	916	-	-	1097	-	-	137
HCM Lane V/C Ratio	0.28	-	-	-	0.038	-	-	0.027
HCM Control Delay (s)	25.1	0	-	-	8.4	-	-	32
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	105	396	331	182	264	120
v/c Ratio	0.47	0.53	0.70	0.34	0.32	0.15
Control Delay	38.7	18.6	34.3	5.2	17.1	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	18.6	34.3	5.2	17.1	4.3
Queue Length 50th (ft)	50	137	150	0	81	0
Queue Length 95th (ft)	89	149	193	34	158	29
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	262	1012	630	653	826	801
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.39	0.53	0.28	0.32	0.15

Intersection Summary

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/11/2018

Intersection						
Int Delay, s/veh	8.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	199	138	73	141	69	145
Future Vol, veh/h	199	138	73	141	69	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	209	145	77	148	73	153

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	450	151	0	0	225
Stage 1	151	-	-	-	-
Stage 2	299	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	571	901	-	-	1356
Stage 1	882	-	-	-	-
Stage 2	757	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	540	901	-	-	1356
Mov Cap-2 Maneuver	540	-	-	-	-
Stage 1	834	-	-	-	-
Stage 2	757	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	646	1356
HCM Lane V/C Ratio	-	-	0.549	0.054
HCM Control Delay (s)	-	-	17.1	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.3	0.2

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	293	427	287	1	4	249
Future Vol, veh/h	293	427	287	1	4	249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	308	449	302	1	4	262

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	303	0	0
Stage 1	-	-	303
Stage 2	-	-	1065
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1269	-	163
Stage 1	-	-	754
Stage 2	-	-	334
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1269	-	123
Mov Cap-2 Maneuver	-	-	123
Stage 1	-	-	571
Stage 2	-	-	334

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	686
HCM Lane V/C Ratio	0.243	-	-	-	0.388
HCM Control Delay (s)	8.7	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	1	-	-	-	1.8

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/11/2018

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	427	299	180	130	7
Future Vol, veh/h	7	427	299	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	469	329	198	143	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	527	0	-	0	814 329
Stage 1	-	-	-	-	329 -
Stage 2	-	-	-	-	485 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1050	-	-	-	350 717
Stage 1	-	-	-	-	734 -
Stage 2	-	-	-	-	623 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1050	-	-	-	347 717
Mov Cap-2 Maneuver	-	-	-	-	347 -
Stage 1	-	-	-	-	728 -
Stage 2	-	-	-	-	623 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	22.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1050	-	-	-	356
HCM Lane V/C Ratio	0.007	-	-	-	0.423
HCM Control Delay (s)	8.5	-	-	-	22.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	208	269	192	99	86	184
Future Vol, veh/h	208	269	192	99	86	184
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	229	296	211	109	95	202
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.6	14.4	11.6
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	66%	0%	0%
Vol Right, %	0%	0%	34%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	269	291	86	184
LT Vol	208	0	0	86	0
Through Vol	0	269	192	0	0
RT Vol	0	0	99	0	184
Lane Flow Rate	229	296	320	95	202
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.403	0.48	0.504	0.188	0.333
Departure Headway (Hd)	6.347	5.84	5.675	7.152	5.933
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	567	618	636	502	605
Service Time	4.081	3.574	3.709	4.896	3.676
HCM Lane V/C Ratio	0.404	0.479	0.503	0.189	0.334
HCM Control Delay	13.3	13.9	14.4	11.6	11.6
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.9	2.6	2.8	0.7	1.5

Intersection						
Int Delay, s/veh	5.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	208	335	228	89	57	124
Future Vol, veh/h	208	335	228	89	57	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	226	364	248	97	62	135

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	345	0	-	0	1113 297
Stage 1	-	-	-	-	297 -
Stage 2	-	-	-	-	816 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1225	-	-	-	233 747
Stage 1	-	-	-	-	758 -
Stage 2	-	-	-	-	438 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1225	-	-	-	190 747
Mov Cap-2 Maneuver	-	-	-	-	190 -
Stage 1	-	-	-	-	619 -
Stage 2	-	-	-	-	438 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1225	-	-	-	388
HCM Lane V/C Ratio	0.185	-	-	-	0.507
HCM Control Delay (s)	8.6	-	-	-	23.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.7	-	-	-	2.8

HCM 6th TWSC
18: Pine Ave & SR-18

09/11/2018

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	561	34	130	385	1	34	0	119	2	0	1
Future Vol, veh/h	1	561	34	130	385	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	572	35	133	393	1	35	0	121	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	394	0	0	607
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1176	-	-	981
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1176	-	-	981
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	27	32.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	316	1176	-	-	981	-	-	132
HCM Lane V/C Ratio	0.494	0.001	-	-	0.135	-	-	0.023
HCM Control Delay (s)	27	8.1	0	-	9.2	-	-	32.9
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	2.6	0	-	-	0.5	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	105	416	356	221	294	120
v/c Ratio	0.47	0.54	0.72	0.38	0.36	0.15
Control Delay	38.7	18.3	34.5	5.0	18.3	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	18.3	34.5	5.0	18.3	4.4
Queue Length 50th (ft)	50	141	161	0	95	0
Queue Length 95th (ft)	89	157	208	36	177	29
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	262	1012	630	679	806	784
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.41	0.57	0.33	0.36	0.15

Intersection Summary

Queues

5: SR-18 & Project Driveway

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	65	783	578	121	157	84
v/c Ratio	0.32	0.66	0.61	0.14	0.41	0.20
Control Delay	36.8	11.4	18.2	2.8	29.6	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	11.4	18.2	2.8	29.6	7.5
Queue Length 50th (ft)	30	203	207	0	67	0
Queue Length 95th (ft)	68	316	319	25	122	34
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	201	1192	940	856	383	427
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.66	0.61	0.14	0.41	0.20

Intersection Summary

Intersection

Int Delay, s/veh 9.2

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations						
Traffic Vol, veh/h	219	138	80	167	69	150
Future Vol, veh/h	219	138	80	167	69	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	231	145	84	176	73	158

Major/Minor Minor1 Major1 Major2

Conflicting Flow All	476	172	0	0	260	0
Stage 1	172	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	551	877	-	-	1316	-
Stage 1	863	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	517	877	-	-	1316	-
Mov Cap-2 Maneuver	517	-	-	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s	19.6	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	615	1316	-
HCM Lane V/C Ratio	-	-	0.611	0.055	-
HCM Control Delay (s)	-	-	19.6	7.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2	-

Intersection

Int Delay, s/veh 5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	
Traffic Vol, veh/h	381	482	330	1	4	317
Future Vol, veh/h	381	482	330	1	4	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	401	507	347	1	4	334

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	348	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1222	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1222	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	4.1	0	17
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1222	-	-	-	632
HCM Lane V/C Ratio	0.328	-	-	-	0.535
HCM Control Delay (s)	9.4	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1.4	-	-	-	3.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/11/2018

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	7	482	342	180	130	7
Future Vol, veh/h	7	482	342	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	530	376	198	143	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	574	0	0	922	376
Stage 1	-	-	-	376	-
Stage 2	-	-	-	546	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1009	-	-	302	675
Stage 1	-	-	-	699	-
Stage 2	-	-	-	584	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1009	-	-	300	675
Mov Cap-2 Maneuver	-	-	-	300	-
Stage 1	-	-	-	693	-
Stage 2	-	-	-	584	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	27.2
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1009	-	-	-	309
HCM Lane V/C Ratio	0.008	-	-	-	0.487
HCM Control Delay (s)	8.6	-	-	-	27.2
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.5

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	230	302	218	99	86	201
Future Vol, veh/h	230	302	218	99	86	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	253	332	240	109	95	221
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.3	16.3	12.4
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	302	317	86	201
LT Vol	230	0	0	86	0
Through Vol	0	302	218	0	0
RT Vol	0	0	99	0	201
Lane Flow Rate	253	332	348	95	221
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.456	0.551	0.565	0.193	0.377
Departure Headway (Hd)	6.488	5.981	5.843	7.362	6.14
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	556	604	617	487	585
Service Time	4.231	3.723	3.885	5.113	3.89
HCM Lane V/C Ratio	0.455	0.55	0.564	0.195	0.378
HCM Control Delay	14.6	15.9	16.3	11.9	12.6
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.4	3.3	3.5	0.7	1.7

Intersection

Int Delay, s/veh 7.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	241	346	237	89	57	150
Future Vol, veh/h	241	346	237	89	57	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	262	376	258	97	62	163

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	355	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1215	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1215	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	3.6	0	28.7
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1215	-	-	-	370
HCM Lane V/C Ratio	0.216	-	-	-	0.608
HCM Control Delay (s)	8.8	-	-	-	28.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.8	-	-	-	3.8

HCM 6th TWSC
18: Pine Ave & SR-18

09/11/2018

Intersection

Int Delay, s/veh 4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	604	34	130	440	1	34	0	119	2	0	1
Future Vol, veh/h	1	604	34	130	440	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	616	35	133	449	1	35	0	121	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	450	0	0	651
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1121	-	-	945
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1121	-	-	945
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

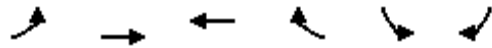
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.1	32.7	38.7
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	1121	-	-	945	-	-	110
HCM Lane V/C Ratio	0.556	0.001	-	-	0.14	-	-	0.028
HCM Control Delay (s)	32.7	8.2	0	-	9.4	-	-	38.7
HCM Lane LOS	D	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	3.1	0	-	-	0.5	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	97	259	490	155	189	159
v/c Ratio	0.48	0.29	0.77	0.24	0.27	0.22
Control Delay	41.4	11.3	31.1	3.5	20.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	11.3	31.1	3.5	20.9	4.9
Queue Length 50th (ft)	46	65	210	0	67	0
Queue Length 95th (ft)	91	82	266	29	131	40
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	201	1125	810	773	696	717
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.23	0.60	0.20	0.27	0.22

Intersection Summary

Queues

5: SR-18 & Project Driveway

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	74	422	648	138	141	76
v/c Ratio	0.37	0.35	0.69	0.16	0.37	0.18
Control Delay	38.0	7.0	20.3	3.0	28.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	7.0	20.3	3.0	28.8	7.7
Queue Length 50th (ft)	34	80	246	2	59	0
Queue Length 95th (ft)	75	126	380	29	110	32
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	201	1192	940	862	383	421
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.35	0.69	0.16	0.37	0.18

Intersection Summary

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/11/2018

Intersection						
Int Delay, s/veh	9.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	220	138	55	116	60	134
Future Vol, veh/h	220	138	55	116	60	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	244	153	61	129	67	149

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	409	126	0	0	190
Stage 1	126	-	-	-	-
Stage 2	283	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	602	930	-	-	1396
Stage 1	905	-	-	-	-
Stage 2	770	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	571	930	-	-	1396
Mov Cap-2 Maneuver	571	-	-	-	-
Stage 1	858	-	-	-	-
Stage 2	770	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	671	1396
HCM Lane V/C Ratio	-	-	0.593	0.048
HCM Control Delay (s)	-	-	17.9	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.9	0.1

Intersection

Int Delay, s/veh 9.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	196	321	350	5	2	374
Future Vol, veh/h	196	321	350	5	2	374
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	239	391	427	6	2	456

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	433	0	0
Stage 1	-	-	430
Stage 2	-	-	869
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1137	-	180
Stage 1	-	-	660
Stage 2	-	-	414
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1137	-	142
Mov Cap-2 Maneuver	-	-	142
Stage 1	-	-	521
Stage 2	-	-	414

Approach

	EB	WB	SB
HCM Control Delay, s	3.4	0	25.7
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1137	-	-	-	618
HCM Lane V/C Ratio	0.21	-	-	-	0.742
HCM Control Delay (s)	9	-	-	-	25.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.8	-	-	-	6.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/11/2018

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	318	354	113	130	4
Future Vol, veh/h	11	318	354	113	130	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	357	398	127	146	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	525	0	0	779	398
Stage 1	-	-	-	398	-
Stage 2	-	-	-	381	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1052	-	-	367	656
Stage 1	-	-	-	683	-
Stage 2	-	-	-	695	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1052	-	-	363	656
Mov Cap-2 Maneuver	-	-	-	363	-
Stage 1	-	-	-	675	-
Stage 2	-	-	-	695	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1052	-	-	-	368
HCM Lane V/C Ratio	0.012	-	-	-	0.409
HCM Control Delay (s)	8.5	-	-	-	21.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	149	192	170	40	65	218
Future Vol, veh/h	149	192	170	40	65	218
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	164	211	187	44	71	240
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.2	11.7	10.9
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	192	210	65	218
LT Vol	149	0	0	65	0
Through Vol	0	192	170	0	0
RT Vol	0	0	40	0	218
Lane Flow Rate	164	211	231	71	240
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.281	0.333	0.357	0.131	0.359
Departure Headway (Hd)	6.188	5.682	5.567	6.614	5.4
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	581	635	646	543	666
Service Time	3.911	3.406	3.592	4.341	3.127
HCM Lane V/C Ratio	0.282	0.332	0.358	0.131	0.36
HCM Control Delay	11.3	11.2	11.7	10.3	11.1
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.1	1.5	1.6	0.4	1.6

Intersection						
Int Delay, s/veh	6.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	181	144	163	57	56	192
Future Vol, veh/h	181	144	163	57	56	192
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	197	157	177	62	61	209

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	239	0	-	0	759 208
Stage 1	-	-	-	-	208 -
Stage 2	-	-	-	-	551 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1340	-	-	-	377 837
Stage 1	-	-	-	-	832 -
Stage 2	-	-	-	-	581 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1340	-	-	-	322 837
Mov Cap-2 Maneuver	-	-	-	-	322 -
Stage 1	-	-	-	-	710 -
Stage 2	-	-	-	-	581 -

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	615
HCM Lane V/C Ratio	0.147	-	-	-	0.438
HCM Control Delay (s)	8.1	-	-	-	15.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.2

HCM 6th TWSC
18: Pine Ave & SR-18

09/11/2018

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	380	14	34	568	0	27	0	30	3	0	0
Future Vol, veh/h	0	380	14	34	568	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	463	17	41	693	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	693	0	0	480	0	0	1247	1247	472	1265	1255	693
Stage 1	-	-	-	-	-	-	472	472	-	775	775	-
Stage 2	-	-	-	-	-	-	775	775	-	490	480	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	912	-	-	1093	-	-	152	175	596	147	173	447
Stage 1	-	-	-	-	-	-	576	562	-	394	411	-
Stage 2	-	-	-	-	-	-	394	411	-	564	558	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	912	-	-	1093	-	-	148	168	596	134	166	447
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	168	-	134	166	-
Stage 1	-	-	-	-	-	-	576	562	-	394	395	-
Stage 2	-	-	-	-	-	-	379	395	-	529	558	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	25.4	32.6
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	245	912	-	-	1093	-	-	134
HCM Lane V/C Ratio	0.284	-	-	-	0.038	-	-	0.027
HCM Control Delay (s)	25.4	0	-	-	8.4	-	-	32.6
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/11/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	126	472	348	184	267	128
v/c Ratio	0.54	0.60	0.70	0.33	0.34	0.16
Control Delay	40.8	19.4	33.3	5.0	18.1	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	19.4	33.3	5.0	18.1	4.3
Queue Length 50th (ft)	59	164	158	0	86	0
Queue Length 95th (ft)	104	184	204	34	160	30
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	262	1012	630	655	793	778
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.47	0.55	0.28	0.34	0.16

Intersection Summary

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/11/2018

Intersection						
Int Delay, s/veh	8.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	203	139	80	146	71	150
Future Vol, veh/h	203	139	80	146	71	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	214	146	84	154	75	158

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	469	161	0	0	238
Stage 1	161	-	-	-	-
Stage 2	308	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	556	889	-	-	1341
Stage 1	873	-	-	-	-
Stage 2	750	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	525	889	-	-	1341
Mov Cap-2 Maneuver	525	-	-	-	-
Stage 1	824	-	-	-	-
Stage 2	750	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	630	1341
HCM Lane V/C Ratio	-	-	0.571	0.056
HCM Control Delay (s)	-	-	18.1	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.6	0.2

Intersection

Int Delay, s/veh 5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	303	485	296	12	12	258
Future Vol, veh/h	303	485	296	12	12	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	319	511	312	13	13	272

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	325	0	0 1468 319
Stage 1	-	-	- 319 -
Stage 2	-	-	- 1149 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1246	-	- 142 726
Stage 1	-	-	- 741 -
Stage 2	-	-	- 305 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1246	-	- 106 726
Mov Cap-2 Maneuver	-	-	- 106 -
Stage 1	-	-	- 551 -
Stage 2	-	-	- 305 -

Approach

	EB	WB	SB
HCM Control Delay, s	3.4	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1246	-	-	-	576
HCM Lane V/C Ratio	0.256	-	-	-	0.493
HCM Control Delay (s)	8.9	-	-	-	17.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1	-	-	-	2.7

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/11/2018

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	489	312	180	130	7
Future Vol, veh/h	7	489	312	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	537	343	198	143	8

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	541	0	0	896	343
Stage 1	-	-	-	343	-
Stage 2	-	-	-	553	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1038	-	-	313	704
Stage 1	-	-	-	723	-
Stage 2	-	-	-	580	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1038	-	-	310	704
Mov Cap-2 Maneuver	-	-	-	310	-
Stage 1	-	-	-	717	-
Stage 2	-	-	-	580	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	26
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1038	-	-	-	319
HCM Lane V/C Ratio	0.007	-	-	-	0.472
HCM Control Delay (s)	8.5	-	-	-	26
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.4

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	208	277	199	99	86	184
Future Vol, veh/h	208	277	199	99	86	184
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	229	304	219	109	95	202
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.9	14.7	11.7
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	67%	0%	0%
Vol Right, %	0%	0%	33%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	277	298	86	184
LT Vol	208	0	0	86	0
Through Vol	0	277	199	0	0
RT Vol	0	0	99	0	184
Lane Flow Rate	229	304	327	95	202
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.404	0.495	0.518	0.189	0.335
Departure Headway (Hd)	6.363	5.856	5.693	7.19	5.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	567	615	632	499	603
Service Time	4.099	3.592	3.729	4.934	3.714
HCM Lane V/C Ratio	0.404	0.494	0.517	0.19	0.335
HCM Control Delay	13.4	14.2	14.7	11.6	11.7
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.9	2.7	3	0.7	1.5

Intersection						
Int Delay, s/veh	8.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	209	401	247	104	78	125
Future Vol, veh/h	209	401	247	104	78	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	227	436	268	113	85	136

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	381	0	-	0	1215 325
Stage 1	-	-	-	-	325 -
Stage 2	-	-	-	-	890 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1189	-	-	-	202 721
Stage 1	-	-	-	-	737 -
Stage 2	-	-	-	-	404 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1189	-	-	-	163 721
Mov Cap-2 Maneuver	-	-	-	-	163 -
Stage 1	-	-	-	-	596 -
Stage 2	-	-	-	-	404 -

Approach	EB	WB	SB
HCM Control Delay, s	3	0	40.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1189	-	-	-	311
HCM Lane V/C Ratio	0.191	-	-	-	0.709
HCM Control Delay (s)	8.7	-	-	-	40.5
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	5.1

HCM 6th TWSC
18: Pine Ave & SR-18

09/11/2018

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	573	34	130	395	1	34	0	119	2	0	1
Future Vol, veh/h	1	573	34	130	395	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	585	35	133	403	1	35	0	121	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	404	0	0	620	0	0	1275	1275	603	1335	1292	404
Stage 1	-	-	-	-	-	-	605	605	-	670	670	-
Stage 2	-	-	-	-	-	-	670	670	-	665	622	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1166	-	-	970	-	-	145	168	503	132	165	651
Stage 1	-	-	-	-	-	-	488	491	-	450	459	-
Stage 2	-	-	-	-	-	-	450	459	-	453	482	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1166	-	-	970	-	-	129	145	503	89	142	651
Mov Cap-2 Maneuver	-	-	-	-	-	-	129	145	-	89	142	-
Stage 1	-	-	-	-	-	-	488	491	-	450	396	-
Stage 2	-	-	-	-	-	-	388	396	-	343	482	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.3			28.4			34.5		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	306	1166	-	-	970	-	-	125
HCM Lane V/C Ratio	0.51	0.001	-	-	0.137	-	-	0.024
HCM Control Delay (s)	28.4	8.1	0	-	9.3	-	-	34.5
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	2.7	0	-	-	0.5	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	97	309	485	123	158	159
v/c Ratio	0.45	0.35	0.79	0.20	0.23	0.22
Control Delay	38.7	12.1	33.0	3.9	20.5	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	12.1	33.0	3.9	20.5	4.9
Queue Length 50th (ft)	46	83	213	0	53	0
Queue Length 95th (ft)	88	98	277	27	111	40
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	242	1125	765	720	698	719
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.27	0.63	0.17	0.23	0.22

Intersection Summary

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/12/2018

Intersection						
Int Delay, s/veh	9.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	207	141	49	101	63	129
Future Vol, veh/h	207	141	49	101	63	129
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	230	157	54	112	70	143

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	393	110	0	0	166	0
Stage 1	110	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	615	949	-	-	1424	-
Stage 1	920	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	582	949	-	-	1424	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	690	1424
HCM Lane V/C Ratio	-	-	0.56	0.049
HCM Control Delay (s)	-	-	16.7	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.5	0.2

Intersection

Int Delay, s/veh 6.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	127	329	310	11	10	305
Future Vol, veh/h	127	329	310	11	10	305
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	155	401	378	13	12	372

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	391	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1179	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1179	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1179	-	-	-	623
HCM Lane V/C Ratio	0.131	-	-	-	0.617
HCM Control Delay (s)	8.5	-	-	-	19.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	4.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/12/2018

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	11	334	320	113	130	4
Future Vol, veh/h	11	334	320	113	130	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	375	360	127	146	4

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	487	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1086	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1086	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	20.7
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1086	-	-	-	378
HCM Lane V/C Ratio	0.011	-	-	-	0.398
HCM Control Delay (s)	8.4	-	-	-	20.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	129	169	147	40	65	198
Future Vol, veh/h	129	169	147	40	65	198
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	142	186	162	44	71	218
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.5	10.7	10.2
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	79%	0%	0%
Vol Right, %	0%	0%	21%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	169	187	65	198
LT Vol	129	0	0	65	0
Through Vol	0	169	147	0	0
RT Vol	0	0	40	0	198
Lane Flow Rate	142	186	205	71	218
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.235	0.282	0.303	0.126	0.31
Departure Headway (Hd)	5.966	5.461	5.311	6.333	5.122
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	597	650	670	562	694
Service Time	3.759	3.255	3.405	4.118	2.906
HCM Lane V/C Ratio	0.238	0.286	0.306	0.126	0.314
HCM Control Delay	10.6	10.4	10.7	10	10.2
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.9	1.2	1.3	0.4	1.3

Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	152	199	167	70	76	164
Future Vol, veh/h	152	199	167	70	76	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	165	216	182	76	83	178

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	258	0	-	0	766 220
Stage 1	-	-	-	-	220 -
Stage 2	-	-	-	-	546 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1318	-	-	-	374 825
Stage 1	-	-	-	-	821 -
Stage 2	-	-	-	-	584 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1318	-	-	-	327 825
Mov Cap-2 Maneuver	-	-	-	-	327 -
Stage 1	-	-	-	-	718 -
Stage 2	-	-	-	-	584 -

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1318	-	-	-	557
HCM Lane V/C Ratio	0.125	-	-	-	0.468
HCM Control Delay (s)	8.1	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.5

HCM 6th TWSC
18: Pine Ave & SR-18

09/12/2018

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	343	14	34	528	0	27	0	30	3	0	0
Future Vol, veh/h	0	343	14	34	528	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	418	17	41	644	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	644	0	0	435	0	0	1153	1153	427	1171	1161	644
Stage 1	-	-	-	-	-	-	427	427	-	726	726	-
Stage 2	-	-	-	-	-	-	726	726	-	445	435	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	951	-	-	1135	-	-	176	199	632	171	197	476
Stage 1	-	-	-	-	-	-	610	589	-	419	433	-
Stage 2	-	-	-	-	-	-	419	433	-	596	584	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	951	-	-	1135	-	-	171	192	632	157	190	476
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	192	-	157	190	-
Stage 1	-	-	-	-	-	-	610	589	-	419	417	-
Stage 2	-	-	-	-	-	-	404	417	-	561	584	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	22.2	28.5
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	278	951	-	-	1135	-	-	157
HCM Lane V/C Ratio	0.25	-	-	-	0.037	-	-	0.023
HCM Control Delay (s)	22.2	0	-	-	8.3	-	-	28.5
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1	0	-	-	0.1	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	126	492	374	222	298	128
v/c Ratio	0.54	0.61	0.72	0.37	0.39	0.17
Control Delay	40.8	19.0	33.4	4.8	19.3	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	19.0	33.4	4.8	19.3	4.4
Queue Length 50th (ft)	59	169	168	0	101	0
Queue Length 95th (ft)	104	193	221	36	179	30
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	262	1012	630	679	772	761
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.49	0.59	0.33	0.39	0.17

Intersection Summary

Queues

5: SR-18 & Project Driveway

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	65	857	597	121	157	84
v/c Ratio	0.32	0.72	0.64	0.14	0.41	0.20
Control Delay	36.8	13.1	18.7	2.8	29.6	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	13.1	18.7	2.8	29.6	7.5
Queue Length 50th (ft)	30	239	217	0	67	0
Queue Length 95th (ft)	68	378	335	25	122	34
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	201	1192	940	856	383	427
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.72	0.64	0.14	0.41	0.20

Intersection Summary

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/12/2018

Intersection						
Int Delay, s/veh	9.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	223	139	87	172	71	155
Future Vol, veh/h	223	139	87	172	71	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	235	146	92	181	75	163

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	496	183	0	0	273	0
Stage 1	183	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	537	865	-	-	1302	-
Stage 1	853	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	503	865	-	-	1302	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	599	1302
HCM Lane V/C Ratio	-	-	0.636	0.057
HCM Control Delay (s)	-	-	20.9	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.5	0.2

Intersection						
Int Delay, s/veh	8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	
Traffic Vol, veh/h	391	540	339	12	12	326
Future Vol, veh/h	391	540	339	12	12	326
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	412	568	357	13	13	343

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	370	0	-	0	1756 364
Stage 1	-	-	-	-	364 -
Stage 2	-	-	-	-	1392 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1200	-	-	-	95 685
Stage 1	-	-	-	-	707 -
Stage 2	-	-	-	-	233 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1200	-	-	-	62 685
Mov Cap-2 Maneuver	-	-	-	-	62 -
Stage 1	-	-	-	-	464 -
Stage 2	-	-	-	-	233 -

Approach	EB	WB	SB
HCM Control Delay, s	4	0	27.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1200	-	-	-	505
HCM Lane V/C Ratio	0.343	-	-	-	0.705
HCM Control Delay (s)	9.6	-	-	-	27.4
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	1.5	-	-	-	5.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/12/2018

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	7	544	355	180	130	7
Future Vol, veh/h	7	544	355	180	130	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	598	390	198	143	8

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	588	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	997	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	997	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.1	0	32.7
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	997	-	-	-	276
HCM Lane V/C Ratio	0.008	-	-	-	0.545
HCM Control Delay (s)	8.6	-	-	-	32.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3

Intersection

Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	230	310	225	99	86	201
Future Vol, veh/h	230	310	225	99	86	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	253	341	247	109	95	221
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.6	16.7	12.5
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	310	324	86	201
LT Vol	230	0	0	86	0
Through Vol	0	310	225	0	0
RT Vol	0	0	99	0	201
Lane Flow Rate	253	341	356	95	221
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.457	0.567	0.58	0.194	0.379
Departure Headway (Hd)	6.504	5.997	5.86	7.398	6.175
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	554	600	616	485	581
Service Time	4.25	3.742	3.904	5.151	3.928
HCM Lane V/C Ratio	0.457	0.568	0.578	0.196	0.38
HCM Control Delay	14.6	16.4	16.7	11.9	12.7
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.4	3.5	3.7	0.7	1.8

Intersection						
Int Delay, s/veh	12.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	242	412	256	104	78	151
Future Vol, veh/h	242	412	256	104	78	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	263	448	278	113	85	164

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	391	0	-	0	1309 335
Stage 1	-	-	-	-	335 -
Stage 2	-	-	-	-	974 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1179	-	-	-	177 712
Stage 1	-	-	-	-	729 -
Stage 2	-	-	-	-	369 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1179	-	-	-	138 712
Mov Cap-2 Maneuver	-	-	-	-	138 -
Stage 1	-	-	-	-	566 -
Stage 2	-	-	-	-	369 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	58.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1179	-	-	-	295
HCM Lane V/C Ratio	0.223	-	-	-	0.844
HCM Control Delay (s)	8.9	-	-	-	58.7
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.9	-	-	-	7.2

HCM 6th TWSC
18: Pine Ave & SR-18

09/12/2018

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	616	34	130	450	1	34	0	119	2	0	1
Future Vol, veh/h	1	616	34	130	450	1	34	0	119	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	629	35	133	459	1	35	0	121	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	664	0	0	1375	1375	647	1435	1392	460
Stage 1	-	-	-	-	-	-	649	649	-	726	726	-
Stage 2	-	-	-	-	-	-	726	726	-	709	666	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1112	-	-	935	-	-	124	147	475	113	143	605
Stage 1	-	-	-	-	-	-	462	469	-	419	433	-
Stage 2	-	-	-	-	-	-	419	433	-	428	460	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1112	-	-	935	-	-	110	126	475	75	123	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	126	-	75	123	-
Stage 1	-	-	-	-	-	-	462	469	-	419	372	-
Stage 2	-	-	-	-	-	-	359	372	-	318	460	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.1			34.4			40		
HCM LOS							D			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	273	1112	-	-	935	-	-	106
HCM Lane V/C Ratio	0.572	0.001	-	-	0.142	-	-	0.029
HCM Control Delay (s)	34.4	8.2	0	-	9.5	-	-	40
HCM Lane LOS	D	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	3.3	0	-	-	0.5	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	97	332	508	157	191	159
v/c Ratio	0.46	0.37	0.79	0.24	0.28	0.23
Control Delay	39.9	12.0	31.9	3.6	21.6	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	12.0	31.9	3.6	21.6	5.0
Queue Length 50th (ft)	46	86	219	0	68	0
Queue Length 95th (ft)	89	106	287	30	133	40
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	222	1125	787	757	679	703
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.30	0.65	0.21	0.28	0.23

Intersection Summary

Queues

5: SR-18 & Project Driveway

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	74	496	666	138	141	76
v/c Ratio	0.37	0.42	0.71	0.16	0.37	0.18
Control Delay	38.0	7.6	21.0	3.2	28.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	7.6	21.0	3.2	28.8	7.7
Queue Length 50th (ft)	34	100	257	3	59	0
Queue Length 95th (ft)	75	155	397	30	110	32
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	201	1192	940	859	383	421
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.42	0.71	0.16	0.37	0.18

Intersection Summary

Intersection						
Int Delay, s/veh	10.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	230	141	55	125	63	135
Future Vol, veh/h	230	141	55	125	63	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	256	157	61	139	70	150

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	421	131	0	0	200	0
Stage 1	131	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	593	924	-	-	1384	-
Stage 1	900	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	560	924	-	-	1384	-
Mov Cap-2 Maneuver	560	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	764	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	659	1384
HCM Lane V/C Ratio	-	-	0.626	0.051
HCM Control Delay (s)	-	-	19.1	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.4	0.2

Intersection						
Int Delay, s/veh	12.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	207	379	359	11	10	383
Future Vol, veh/h	207	379	359	11	10	383
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	252	462	438	13	12	467

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	451	0	-	0	1411 445
Stage 1	-	-	-	-	445 -
Stage 2	-	-	-	-	966 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1120	-	-	-	154 617
Stage 1	-	-	-	-	650 -
Stage 2	-	-	-	-	372 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1120	-	-	-	119 617
Mov Cap-2 Maneuver	-	-	-	-	119 -
Stage 1	-	-	-	-	504 -
Stage 2	-	-	-	-	372 -

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	38.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1120	-	-	-	558
HCM Lane V/C Ratio	0.225	-	-	-	0.859
HCM Control Delay (s)	9.1	-	-	-	38.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.9	-	-	-	9.4

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/12/2018

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	11	384	369	113	130	4
Future Vol, veh/h	11	384	369	113	130	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	431	415	127	146	4

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	542	0	0	870	415
Stage 1	-	-	-	415	-
Stage 2	-	-	-	455	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1037	-	-	325	642
Stage 1	-	-	-	671	-
Stage 2	-	-	-	643	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1037	-	-	321	642
Mov Cap-2 Maneuver	-	-	-	321	-
Stage 1	-	-	-	663	-
Stage 2	-	-	-	643	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.2	0	25.2
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1037	-	-	-	326
HCM Lane V/C Ratio	0.012	-	-	-	0.462
HCM Control Delay (s)	8.5	-	-	-	25.2
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.3

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	149	199	176	40	65	218
Future Vol, veh/h	149	199	176	40	65	218
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	164	219	193	44	71	240
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.4	11.8	11
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	199	216	65	218
LT Vol	149	0	0	65	0
Through Vol	0	199	176	0	0
RT Vol	0	0	40	0	218
Lane Flow Rate	164	219	237	71	240
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.282	0.346	0.368	0.132	0.362
Departure Headway (Hd)	6.205	5.699	5.587	6.651	5.437
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	580	632	646	540	664
Service Time	3.929	3.423	3.612	4.378	3.164
HCM Lane V/C Ratio	0.283	0.347	0.367	0.131	0.361
HCM Control Delay	11.4	11.4	11.8	10.4	11.2
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.2	1.5	1.7	0.5	1.7

Intersection						
Int Delay, s/veh	7.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	182	209	177	70	76	193
Future Vol, veh/h	182	209	177	70	76	193
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	198	227	192	76	83	210

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	268	0	-	0	853 230
Stage 1	-	-	-	-	230 -
Stage 2	-	-	-	-	623 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1307	-	-	-	332 814
Stage 1	-	-	-	-	813 -
Stage 2	-	-	-	-	539 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1307	-	-	-	282 814
Mov Cap-2 Maneuver	-	-	-	-	282 -
Stage 1	-	-	-	-	690 -
Stage 2	-	-	-	-	539 -

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1307	-	-	-	531
HCM Lane V/C Ratio	0.151	-	-	-	0.551
HCM Control Delay (s)	8.2	-	-	-	19.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	3.3

HCM 6th TWSC
18: Pine Ave & SR-18

09/12/2018

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	392	14	34	578	0	27	0	30	3	0	0
Future Vol, veh/h	0	392	14	34	578	0	27	0	30	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	478	17	41	705	0	33	0	37	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	705	0	0	495	0	0	1274	1274	487	1292	1282	705
Stage 1	-	-	-	-	-	-	487	487	-	787	787	-
Stage 2	-	-	-	-	-	-	787	787	-	505	495	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	902	-	-	1079	-	-	145	169	585	141	167	440
Stage 1	-	-	-	-	-	-	566	554	-	388	406	-
Stage 2	-	-	-	-	-	-	388	406	-	553	549	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	902	-	-	1079	-	-	141	163	585	128	161	440
Mov Cap-2 Maneuver	-	-	-	-	-	-	141	163	-	128	161	-
Stage 1	-	-	-	-	-	-	566	554	-	388	391	-
Stage 2	-	-	-	-	-	-	373	391	-	518	549	-

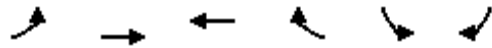
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			26.6			34		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	235	902	-	-	1079	-	-	128
HCM Lane V/C Ratio	0.296	-	-	-	0.038	-	-	0.029
HCM Control Delay (s)	26.6	0	-	-	8.5	-	-	34
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.2	0	-	-	0.1	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	124	471	392	200	287	143
v/c Ratio	0.51	0.56	0.73	0.33	0.37	0.18
Control Delay	39.4	18.1	33.6	4.7	18.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	18.1	33.6	4.7	18.8	4.1
Queue Length 50th (ft)	58	159	177	0	95	0
Queue Length 95th (ft)	108	194	247	42	186	37
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	277	1068	665	695	784	817
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.44	0.59	0.29	0.37	0.18

Intersection Summary

Intersection						
Int Delay, s/veh	10.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	227	156	83	159	79	165
Future Vol, veh/h	227	156	83	159	79	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	239	164	87	167	83	174

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	511	171	0	0	254
Stage 1	171	-	-	-	-
Stage 2	340	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	526	878	-	-	1323
Stage 1	864	-	-	-	-
Stage 2	725	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	493	878	-	-	1323
Mov Cap-2 Maneuver	493	-	-	-	-
Stage 1	810	-	-	-	-
Stage 2	725	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.4	0	2.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	600	1323
HCM Lane V/C Ratio	-	-	0.672	0.063
HCM Control Delay (s)	-	-	22.4	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	5.1	0.2

HCM 6th TWSC
10: SR-18 & Daley Canyon Rd.

09/12/2018

Intersection

Int Delay, s/veh 7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	348	509	356	14	13	296
Future Vol, veh/h	348	509	356	14	13	296
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	366	536	375	15	14	312

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	390	0	-	0	1651 383
Stage 1	-	-	-	-	383 -
Stage 2	-	-	-	-	1268 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1180	-	-	-	110 669
Stage 1	-	-	-	-	694 -
Stage 2	-	-	-	-	267 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1180	-	-	-	76 669
Mov Cap-2 Maneuver	-	-	-	-	76 -
Stage 1	-	-	-	-	479 -
Stage 2	-	-	-	-	267 -

Approach

	EB	WB	SB
HCM Control Delay, s	3.8	0	24.2
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1180	-	-	-	504
HCM Lane V/C Ratio	0.31	-	-	-	0.645
HCM Control Delay (s)	9.4	-	-	-	24.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1.3	-	-	-	4.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/12/2018

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	515	361	217	157	8
Future Vol, veh/h	8	515	361	217	157	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	542	380	228	165	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	608	0	-	0	938
Stage 1	-	-	-	-	380
Stage 2	-	-	-	-	558
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	980	-	-	-	296
Stage 1	-	-	-	-	696
Stage 2	-	-	-	-	577
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	980	-	-	-	294
Mov Cap-2 Maneuver	-	-	-	-	294
Stage 1	-	-	-	-	690
Stage 2	-	-	-	-	577

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	31.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	980	-	-	-	302
HCM Lane V/C Ratio	0.009	-	-	-	0.575
HCM Control Delay (s)	8.7	-	-	-	31.9
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3.4

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	221	285	204	105	91	196
Future Vol, veh/h	221	285	204	105	91	196
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	233	300	215	111	96	206
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.8	14.7	11.7
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	66%	0%	0%
Vol Right, %	0%	0%	34%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	221	285	309	91	196
LT Vol	221	0	0	91	0
Through Vol	0	285	204	0	0
RT Vol	0	0	105	0	196
Lane Flow Rate	233	300	325	96	206
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.412	0.489	0.515	0.191	0.342
Departure Headway (Hd)	6.377	5.871	5.705	7.187	5.967
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	565	615	631	499	602
Service Time	4.114	3.607	3.741	4.931	3.711
HCM Lane V/C Ratio	0.412	0.488	0.515	0.192	0.342
HCM Control Delay	13.5	14.1	14.7	11.6	11.8
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	2	2.7	3	0.7	1.5

Intersection						
Int Delay, s/veh	19.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	272	439	298	117	82	162
Future Vol, veh/h	272	439	298	117	82	162
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	286	462	314	123	86	171

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	437	0	-	0	1410 376
Stage 1	-	-	-	-	376 -
Stage 2	-	-	-	-	1034 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1134	-	-	-	154 675
Stage 1	-	-	-	-	699 -
Stage 2	-	-	-	-	346 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1134	-	-	-	115 675
Mov Cap-2 Maneuver	-	-	-	-	115 -
Stage 1	-	-	-	-	523 -
Stage 2	-	-	-	-	346 -

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	99.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1134	-	-	-	256
HCM Lane V/C Ratio	0.252	-	-	-	1.003
HCM Control Delay (s)	9.2	-	-	-	99.5
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	1	-	-	-	9.9

HCM 6th TWSC
18: Pine Ave & SR-18

09/12/2018

Intersection												
Int Delay, s/veh	10.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	667	40	155	458	1	40	0	142	2	0	1
Future Vol, veh/h	1	667	40	155	458	1	40	0	142	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	702	42	163	482	1	42	0	149	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	483	0	0	744	0	0	1534	1534	723	1609	1555	483
Stage 1	-	-	-	-	-	-	725	725	-	809	809	-
Stage 2	-	-	-	-	-	-	809	809	-	800	746	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1090	-	-	873	-	-	96	118	430	85	114	588
Stage 1	-	-	-	-	-	-	420	433	-	377	396	-
Stage 2	-	-	-	-	-	-	377	396	-	382	424	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1090	-	-	873	-	-	82	96	430	47	92	588
Mov Cap-2 Maneuver	-	-	-	-	-	-	82	96	-	47	92	-
Stage 1	-	-	-	-	-	-	419	432	-	376	322	-
Stage 2	-	-	-	-	-	-	306	322	-	249	423	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.5			75.5			60.5		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	222	1090	-	-	873	-	-	68
HCM Lane V/C Ratio	0.863	0.001	-	-	0.187	-	-	0.046
HCM Control Delay (s)	75.5	8.3	0	-	10.1	-	-	60.5
HCM Lane LOS	F	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	6.8	0	-	-	0.7	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	104	297	561	133	171	192
v/c Ratio	0.44	0.32	0.87	0.21	0.25	0.25
Control Delay	37.8	12.1	40.4	4.5	19.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	12.1	40.4	4.5	19.5	4.1
Queue Length 50th (ft)	49	72	240	0	62	0
Queue Length 95th (ft)	93	115	#430	35	111	42
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	277	1068	683	665	697	772
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.28	0.82	0.20	0.25	0.25

Intersection Summary

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

HCM 6th TWSC
7: SR-189 & Lake Forest Dr.

09/12/2018

Intersection						
Int Delay, s/veh	9.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	229	159	56	106	69	147
Future Vol, veh/h	229	159	56	106	69	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	241	167	59	112	73	155

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	416	115	0	0	171	0
Stage 1	115	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	597	943	-	-	1418	-
Stage 1	915	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	567	943	-	-	1418	-
Mov Cap-2 Maneuver	567	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18	0	2.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	678	1418
HCM Lane V/C Ratio	-	-	0.602	0.051
HCM Control Delay (s)	-	-	18	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2

Intersection

Int Delay, s/veh 7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	140	351	386	13	11	357
Future Vol, veh/h	140	351	386	13	11	357
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	147	369	406	14	12	376

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	420	0	-	0	1076 413
Stage 1	-	-	-	-	413 -
Stage 2	-	-	-	-	663 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1150	-	-	-	245 643
Stage 1	-	-	-	-	672 -
Stage 2	-	-	-	-	516 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1150	-	-	-	214 643
Mov Cap-2 Maneuver	-	-	-	-	214 -
Stage 1	-	-	-	-	586 -
Stage 2	-	-	-	-	516 -

Approach

	EB	WB	SB
HCM Control Delay, s	2.4	0	20.8
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1150	-	-	-	607
HCM Lane V/C Ratio	0.128	-	-	-	0.638
HCM Control Delay (s)	8.6	-	-	-	20.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	4.5

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/12/2018

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	347	394	146	168	5
Future Vol, veh/h	14	347	394	146	168	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	365	415	154	177	5

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	569	0	0	810	415
Stage 1	-	-	-	415	-
Stage 2	-	-	-	395	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1013	-	-	352	642
Stage 1	-	-	-	671	-
Stage 2	-	-	-	685	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1013	-	-	347	642
Mov Cap-2 Maneuver	-	-	-	347	-
Stage 1	-	-	-	661	-
Stage 2	-	-	-	685	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.3	0	25.7
HCM LOS			D

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1013	-	-	-	352
HCM Lane V/C Ratio	0.015	-	-	-	0.517
HCM Control Delay (s)	8.6	-	-	-	25.7
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.8

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↑	↷		↶	↷
Traffic Vol, veh/h	141	176	153	43	72	216
Future Vol, veh/h	141	176	153	43	72	216
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	148	185	161	45	76	227
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.6	10.9	10.3
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	78%	0%	0%
Vol Right, %	0%	0%	22%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	141	176	196	72	216
LT Vol	141	0	0	72	0
Through Vol	0	176	153	0	0
RT Vol	0	0	43	0	216
Lane Flow Rate	148	185	206	76	227
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.248	0.283	0.307	0.134	0.325
Departure Headway (Hd)	6.009	5.504	5.356	6.356	5.145
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	592	645	662	560	691
Service Time	3.806	3.301	3.453	4.145	2.933
HCM Lane V/C Ratio	0.25	0.287	0.311	0.136	0.329
HCM Control Delay	10.8	10.5	10.9	10.1	10.4
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1	1.2	1.3	0.5	1.4

Intersection

Int Delay, s/veh 8.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	199	209	202	76	80	216
Future Vol, veh/h	199	209	202	76	80	216
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	209	220	213	80	84	227

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	293	0	0	891	253
Stage 1	-	-	-	253	-
Stage 2	-	-	-	638	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1280	-	-	315	791
Stage 1	-	-	-	794	-
Stage 2	-	-	-	530	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1280	-	-	264	791
Mov Cap-2 Maneuver	-	-	-	264	-
Stage 1	-	-	-	665	-
Stage 2	-	-	-	530	-

Approach

	EB	WB	SB
HCM Control Delay, s	4.1	0	22.2
HCM LOS			C

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1280	-	-	-	514
HCM Lane V/C Ratio	0.164	-	-	-	0.606
HCM Control Delay (s)	8.4	-	-	-	22.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	4

HCM 6th TWSC
18: Pine Ave & SR-18

09/12/2018

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	399	17	41	626	0	33	0	37	4	0	0
Future Vol, veh/h	0	399	17	41	626	0	33	0	37	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	420	18	43	659	0	35	0	39	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	659	0	0	438	0	0	1174	1174	429	1194	1183	659
Stage 1	-	-	-	-	-	-	429	429	-	745	745	-
Stage 2	-	-	-	-	-	-	745	745	-	449	438	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	939	-	-	1133	-	-	170	193	630	165	191	467
Stage 1	-	-	-	-	-	-	608	587	-	409	424	-
Stage 2	-	-	-	-	-	-	409	424	-	593	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	939	-	-	1133	-	-	165	186	630	150	184	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	186	-	150	184	-
Stage 1	-	-	-	-	-	-	608	587	-	409	408	-
Stage 2	-	-	-	-	-	-	393	408	-	556	582	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	23.2	29.7
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	939	-	-	1133	-	-	150
HCM Lane V/C Ratio	0.272	-	-	-	0.038	-	-	0.028
HCM Control Delay (s)	23.2	0	-	-	8.3	-	-	29.7
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	104	318	582	164	201	192
v/c Ratio	0.44	0.34	0.88	0.25	0.29	0.25
Control Delay	37.8	12.1	41.4	4.2	20.2	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	12.1	41.4	4.2	20.2	4.1
Queue Length 50th (ft)	49	77	251	0	74	0
Queue Length 95th (ft)	93	124	#455	38	129	42
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	277	1068	685	686	684	761
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.30	0.85	0.24	0.29	0.25

Intersection Summary

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

Queues

5: SR-18 & Project Driveway

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	72	516	782	134	137	74
v/c Ratio	0.34	0.41	0.79	0.15	0.34	0.17
Control Delay	36.9	7.5	24.4	4.2	28.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	7.5	24.4	4.2	28.1	7.6
Queue Length 50th (ft)	33	103	323	7	57	0
Queue Length 95th (ft)	73	158	#548	35	106	31
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	213	1258	992	894	406	439
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.41	0.79	0.15	0.34	0.17

Intersection Summary

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

Intersection						
Int Delay, s/veh	11.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	252	159	62	130	69	153
Future Vol, veh/h	252	159	62	130	69	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	265	167	65	137	73	161

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	441	134	0	0	202
Stage 1	134	-	-	-	-
Stage 2	307	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	577	920	-	-	1382
Stage 1	897	-	-	-	-
Stage 2	751	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	544	920	-	-	1382
Mov Cap-2 Maneuver	544	-	-	-	-
Stage 1	845	-	-	-	-
Stage 2	751	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	646	1382
HCM Lane V/C Ratio	-	-	0.67	0.053
HCM Control Delay (s)	-	-	21.1	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	5.1	0.2

Intersection

Int Delay, s/veh	12.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	220	401	435	13	11	435
Future Vol, veh/h	220	401	435	13	11	435
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	232	422	458	14	12	458

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	472	0	-	0	1351
Stage 1	-	-	-	-	465
Stage 2	-	-	-	-	886
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1100	-	-	-	167
Stage 1	-	-	-	-	636
Stage 2	-	-	-	-	406
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1100	-	-	-	132
Mov Cap-2 Maneuver	-	-	-	-	132
Stage 1	-	-	-	-	502
Stage 2	-	-	-	-	406

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	37.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1100	-	-	-	553
HCM Lane V/C Ratio	0.211	-	-	-	0.849
HCM Control Delay (s)	9.1	-	-	-	37.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.8	-	-	-	9

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/12/2018

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	397	443	146	168	5
Future Vol, veh/h	14	397	443	146	168	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	418	466	154	177	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	620	0	-	0	914
Stage 1	-	-	-	-	466
Stage 2	-	-	-	-	448
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	970	-	-	-	306
Stage 1	-	-	-	-	636
Stage 2	-	-	-	-	648
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	970	-	-	-	301
Mov Cap-2 Maneuver	-	-	-	-	301
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	648

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	32.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	970	-	-	-	305
HCM Lane V/C Ratio	0.015	-	-	-	0.597
HCM Control Delay (s)	8.8	-	-	-	32.9
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3.6

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	↗
Traffic Vol, veh/h	161	206	182	43	72	236
Future Vol, veh/h	161	206	182	43	72	236
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	169	217	192	45	76	248
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	11.5	11.9	11.2
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	81%	0%	0%
Vol Right, %	0%	0%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	161	206	225	72	236
LT Vol	161	0	0	72	0
Through Vol	0	206	182	0	0
RT Vol	0	0	43	0	236
Lane Flow Rate	169	217	237	76	248
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.294	0.346	0.37	0.14	0.376
Departure Headway (Hd)	6.247	5.742	5.629	6.666	5.451
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	576	627	639	539	661
Service Time	3.972	3.466	3.655	4.397	3.182
HCM Lane V/C Ratio	0.293	0.346	0.371	0.141	0.375
HCM Control Delay	11.6	11.5	11.9	10.5	11.4
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.2	1.5	1.7	0.5	1.7

Intersection						
Int Delay, s/veh	10.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	229	219	212	76	80	245
Future Vol, veh/h	229	219	212	76	80	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	241	231	223	80	84	258

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	303	0	-	0	976 263
Stage 1	-	-	-	-	263 -
Stage 2	-	-	-	-	713 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1269	-	-	-	281 781
Stage 1	-	-	-	-	786 -
Stage 2	-	-	-	-	489 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1269	-	-	-	228 781
Mov Cap-2 Maneuver	-	-	-	-	228 -
Stage 1	-	-	-	-	637 -
Stage 2	-	-	-	-	489 -

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	27.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	489
HCM Lane V/C Ratio	0.19	-	-	-	0.7
HCM Control Delay (s)	8.5	-	-	-	27.8
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.7	-	-	-	5.4

HCM 6th TWSC
18: Pine Ave & SR-18

09/12/2018

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	448	17	41	676	0	33	0	37	4	0	0
Future Vol, veh/h	0	448	17	41	676	0	33	0	37	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	472	18	43	712	0	35	0	39	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	712	0	0	490	0	0	1279	1279	481	1299	1288	712
Stage 1	-	-	-	-	-	-	481	481	-	798	798	-
Stage 2	-	-	-	-	-	-	798	798	-	501	490	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	897	-	-	1084	-	-	144	167	589	140	165	436
Stage 1	-	-	-	-	-	-	570	557	-	382	401	-
Stage 2	-	-	-	-	-	-	382	401	-	556	552	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	897	-	-	1084	-	-	140	160	589	127	158	436
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	160	-	127	158	-
Stage 1	-	-	-	-	-	-	570	557	-	382	385	-
Stage 2	-	-	-	-	-	-	367	385	-	519	552	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			27.3			34.3		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	234	897	-	-	1084	-	-	127
HCM Lane V/C Ratio	0.315	-	-	-	0.04	-	-	0.033
HCM Control Delay (s)	27.3	0	-	-	8.5	-	-	34.3
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.3	0	-	-	0.1	-	-	0.1

Queues

3: SR-18 & Lake Gregory Dr.

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	124	488	415	235	315	143
v/c Ratio	0.51	0.57	0.74	0.37	0.41	0.18
Control Delay	39.4	17.6	33.4	4.5	20.1	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	17.6	33.4	4.5	20.1	4.2
Queue Length 50th (ft)	58	159	183	0	111	0
Queue Length 95th (ft)	108	203	264	45	206	37
Internal Link Dist (ft)		657	263		55	
Turn Bay Length (ft)	425			200		
Base Capacity (vph)	277	1068	665	718	764	800
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.46	0.62	0.33	0.41	0.18

Intersection Summary

Queues

5: SR-18 & Project Driveway

09/12/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	63	902	685	117	152	81
v/c Ratio	0.30	0.72	0.65	0.12	0.37	0.18
Control Delay	36.0	12.8	17.7	3.4	28.8	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	12.8	17.7	3.4	28.8	7.4
Queue Length 50th (ft)	29	251	260	3	64	0
Queue Length 95th (ft)	66	390	396	28	116	33
Internal Link Dist (ft)		712	478		84	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	213	1258	1059	947	406	445
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.72	0.65	0.12	0.37	0.18

Intersection Summary

Intersection						
Int Delay, s/veh	12.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	247	156	90	185	79	170
Future Vol, veh/h	247	156	90	185	79	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	260	164	95	195	83	179

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	538	193	0	0	290
Stage 1	193	-	-	-	-
Stage 2	345	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	508	854	-	-	1283
Stage 1	845	-	-	-	-
Stage 2	722	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	471	854	-	-	1283
Mov Cap-2 Maneuver	471	-	-	-	-
Stage 1	784	-	-	-	-
Stage 2	722	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.4	0	2.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	1283
HCM Lane V/C Ratio	-	-	0.744	0.065
HCM Control Delay (s)	-	-	27.4	8
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	6.4	0.2

Intersection						
Int Delay, s/veh	14.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	436	564	399	14	13	364
Future Vol, veh/h	436	564	399	14	13	364
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	459	594	420	15	14	383

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	435	0	-	0	1940 428
Stage 1	-	-	-	-	428 -
Stage 2	-	-	-	-	1512 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1135	-	-	-	73 631
Stage 1	-	-	-	-	662 -
Stage 2	-	-	-	-	203 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1135	-	-	-	44 631
Mov Cap-2 Maneuver	-	-	-	-	44 -
Stage 1	-	-	-	-	395 -
Stage 2	-	-	-	-	203 -

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	56.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1135	-	-	-	432
HCM Lane V/C Ratio	0.404	-	-	-	0.919
HCM Control Delay (s)	10.3	-	-	-	56.5
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	2	-	-	-	10.2

HCM 6th TWSC
 11: SR-18 & Daley Canyon Access Rd.

09/12/2018

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↗
Traffic Vol, veh/h	8	570	404	217	157	8
Future Vol, veh/h	8	570	404	217	157	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	25	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	600	425	228	165	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	653	0	-	0	1041 425
Stage 1	-	-	-	-	425 -
Stage 2	-	-	-	-	616 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	943	-	-	-	257 634
Stage 1	-	-	-	-	664 -
Stage 2	-	-	-	-	543 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	943	-	-	-	255 634
Mov Cap-2 Maneuver	-	-	-	-	255 -
Stage 1	-	-	-	-	659 -
Stage 2	-	-	-	-	543 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	41.8
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	943	-	-	-	263
HCM Lane V/C Ratio	0.009	-	-	-	0.66
HCM Control Delay (s)	8.9	-	-	-	41.8
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	4.2

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	243	318	230	105	91	213
Future Vol, veh/h	243	318	230	105	91	213
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	256	335	242	111	96	224
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.5	16.6	12.5
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	0%
Vol Right, %	0%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	243	318	335	91	213
LT Vol	243	0	0	91	0
Through Vol	0	318	230	0	0
RT Vol	0	0	105	0	213
Lane Flow Rate	256	335	353	96	224
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.463	0.559	0.575	0.197	0.384
Departure Headway (Hd)	6.515	6.007	5.867	7.388	6.166
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	553	599	614	486	583
Service Time	4.26	3.753	3.911	5.141	3.919
HCM Lane V/C Ratio	0.463	0.559	0.575	0.198	0.384
HCM Control Delay	14.8	16.1	16.6	12	12.7
HCM Lane LOS	B	C	C	B	B
HCM 95th-tile Q	2.4	3.4	3.6	0.7	1.8

Intersection						
Int Delay, s/veh	31.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	305	450	307	117	82	188
Future Vol, veh/h	305	450	307	117	82	188
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	321	474	323	123	86	198

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	446	0	-	0	1501 385
Stage 1	-	-	-	-	385 -
Stage 2	-	-	-	-	1116 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1125	-	-	-	136 667
Stage 1	-	-	-	-	692 -
Stage 2	-	-	-	-	316 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1125	-	-	-	97 667
Mov Cap-2 Maneuver	-	-	-	-	97 -
Stage 1	-	-	-	-	495 -
Stage 2	-	-	-	-	316 -

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	160
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1125	-	-	-	240
HCM Lane V/C Ratio	0.285	-	-	-	1.184
HCM Control Delay (s)	9.5	-	-	-	160
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	1.2	-	-	-	13.5

HCM 6th TWSC
18: Pine Ave & SR-18

09/12/2018

Intersection

Int Delay, s/veh 13.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	710	40	155	513	1	40	0	142	2	0	1
Future Vol, veh/h	1	710	40	155	513	1	40	0	142	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	747	42	163	540	1	42	0	149	2	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	541	0	0	789
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1038	-	-	840
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1038	-	-	840
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	108.3	73.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	196	1038	-	-	840	-	-	56
HCM Lane V/C Ratio	0.977	0.001	-	-	0.194	-	-	0.056
HCM Control Delay (s)	108.3	8.5	0	-	10.3	-	-	73.1
HCM Lane LOS	F	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	8.2	0	-	-	0.7	-	-	0.2